A Complete Bibliography of *ACM Transactions on Database Systems*

Nelson H. F. Beebe
University of Utah
Department of Mathematics, 110 LCB
155 S 1400 E RM 233
Salt Lake City, UT 84112-0090
USA

Tel: +1 801 581 5254
FAX: +1 801 581 4148

E-mail: beebe@math.utah.edu, beebe@acm.org,
beebe@computer.org (Internet)
WWW URL: https://www.math.utah.edu/~beebe/

24 September 2024
Version 2.95

Title word cross-reference

(β, γ, δ) [250]. $^+$ [602]. ϵ [1013]. F_0 [1069]. K [633, 986, 586, 800, 548, 843, 896, 760, 874, 678, 580, 648, 898, 702]. N [226]. pq [749]. R [1025].

-constraints [586]. **-gram** [749]. **-Nearest** [874]. **-nn** [633]. **-Regret** [986]. **-Relational** [226]. **-tree** [602]. **-trees** [1025].

1 [94, 93, 140, 112, 129, 92]. **1.1** [968]. **13** [403]. **16** [388]. **1975** [1088]. **1976&ndash1978** [110].

2007 [713, 710, 709, 716]. **2008** [739].

'86 [1092].

9 [244]. **92a** [388]. **9th** [1090].

= [344].

Abstract [353, 274]. **Abstraction** [9, 550]. **Abstractions** [67, 28]. **Accelerating** [574, 1027]. **Acceleration** [1040, 582]. **Access** [4, 902, 894, 40, 1055, 1063, 80, 57, 321, 386, 308, 187, 25, 500, 757, 664, 538, 498]. **accessed** [681]. **Accesses** [239, 1]. **accessibility** [581]. **accessible** [580]. **Account** [125]. **accuracy** [729]. **Accurate** [1085, 959, 765]. **Achieving** [191, 321]. **ACM** [1091, 1094, 403, 388, 253, 679, 244, 2, 710].

acquisitional [596]. **across** [1075, 630, 873]. **ACTA** [446]. **Action** [946]. **actions** [553]. **Active** [452, 464, 462, 743, 527]. **Activity** [468]. **Activity-Driven** [468]. **Ad** [117, 884, 957, 1076]. **Ad-Hoc** [884]. **Adaptable** [207]. **Adaptive** [636, 992, 1017, 338, 652, 558, 247, 490, 685, 549, 602, 484]. **Addendum** [244]. **Additive** [1028]. **Addressable** [151]. **Addressing** [1086]. **Adjustment** [291]. **Admission** [248]. **Advanced** [595]. **adversaries** [753]. **Against** [69]. **Aggregate** [979, 390, 420, 1028, 366, 305, 606, 1080, 799, 844, 702]. **Aggregates** [939, 715, 701]. **Aggregation** [1062, 968, 996, 28, 1031, 637, 726, 678]. **AGM** [332]. **Agreement** [262]. **Ahead** [397]. **aim** [2]. **Algebra** [473, 390, 981, 366, 305, 396, 322, 1023, 403, 650, 677, 534]. **Algebraic** [847, 527]. **Algorithm** [230, 167, 391, 153, 368, 24, 356, 10, 927, 557, 484, 753]. **algorithmic** [814]. **Algorithms** [363, 215, 195, 190, 11, 1003, 320, 1017, 1014, 1084, 457, 888, 1000, 428, 357, 415, 1041, 18, 953, 874, 1034, 234, 445, 1087, 386, 694, 312, 460, 827, 963, 42, 211, 1010, 71, 786, 770, 604, 631, 522, 558, 751, 813]. **Alignment** [829]. **Allocation** [417, 318, 124, 149, 6]. **allow** [642]. **Almost** [1078, 848]. **Almost-linear** [848]. **Alternating** [458]. **Alternative** [520, 830, 564]. **Alternatives** [307, 485]. **Altruistic** [438]. **Amalgamating** [442]. **Ambiguity** [461, 354]. **Among** [441]. **Analyses** [747]. **Analysis** [452, 974, 984, 902, 231, 244, 290, 136, 261, 883, 348, 143, 170, 418, 99, 38, 1087, 228, 386, 841, 210, 302, 565, 241, 25, 743, 527, 501, 515, 718, 535, 792, 638, 750, 858, 780, 719, 654, 517, 840, 618, 784]. **Analytics** [995, 828, 953]. **annotation** [862]. **Annotations** [382]. **Anonymization** [728, 729, 706, 776, 753]. **Anonymization-based** [728]. **anonymized** [812]. **Answer** [918, 885]. **Answering** [983, 1055, 960, 540, 178, 799, 699, 723, 819, 810]. **Answers** [1063, 419, 410, 923, 993]. **anticipated** [628]. **Antijoin** [913]. **any** [574]. **Apologizing** [353]. **Application** [461, 193, 198, 15, 125, 1076, 33, 793, 583]. **Application-Level** [1076]. **Applications** [284, 262, 100, 946, 915, 1076, 356, 501, 478, 5, 711]. **Applying** [483, 533]. **Approach** [412, 8, 139, 266, 355, 1053, 20, 934, 462, 1065, 468, 198, 431, 405, 1012, 993, 359, 74, 192, 315, 165, 147, 578, 527, 687, 649, 582, 839, 630, 664, 528, 787, 632, 682, 784, 490]. **Approximate** [698, 912, 1027, 956, 1010, 908, 668, 554, 726, 551, 626, 712, 671, 813, 688, 723]. **Approximating** [1]. **Approximation** [1053, 965, 631, 1033, 963]. **Arbitrary** [875, 1029, 167, 637]. **Architectural** [38]. **Architecture** [133, 155, 939, 769, 796]. **architecture-sensitive** [796]. **Architectures** [258, 189, 261]. **Archiving** [572]. **area** [636]. **ARIES** [475, 397]. **arithmetic** [823]. **array** [685]. **Articles** [887]. **Artifact** [823, 1006]. **Asking** [353]. **Aspect** [63]. **Aspects** [447]. **Assignment** [968, 402]. **assisted** [732]. **association** [537]. **Associative** [189, 132, 50, 30, 286, 5]. **Assuming** [137, 203]. **Assumption** [160, 219]. **Assumptions** [212]. **Asymmetric** [849]. **Asymptotically** [786]. **Asynchronous** [1017]. **Atlantic** [1094]. **Atomic** [938, 942]. **Atomicity** [196, 546]. **ATSQL** [536]. **attacks** [728]. **Attention** [991]. **Attribute** [95, 804, 25]. **Attribute-Based** [95]. **Attributes** [305, 804]. **Authentication** [891]. **Author** [433, 491]. **Authority** [690]. **Authority-based** [690]. **Authorization** [59, 14, 373, 562]. **Autocompletion** [927]. **automata** [591]. **Automated** [440, 1084]. **Automatic** [444, 630, 411, 339, 155, 409, 752, 7]. **autonomous** [634]. **Autonomously** [340]. **Availability** [337, 416, 236]. **available** [612]. **Average** [222]. **Aware**

[946, 763, 652, 725, 706]. **axiomatic** [480, 814]. **Axiomatization** [383].

B [23, 942, 761, 818, 802, 602, 624, 415, 142, 121]. **B-Tree** [415, 761, 802, 624]. **B-Trees** [142, 121, 942, 23, 818]. **Back** [261, 742]. **Back-End** [261]. **Backup** [380, 32, 223, 445]. **Bag** [798, 1042]. **bags** [557]. **Balanced** [89, 250]. **Balancing** [1045]. **Bancilhon** [303]. **Base** [414, 520]. **Based** [370, 151, 426, 398, 400, 894, 40, 950, 365, 355, 472, 901, 131, 95, 177, 1067, 1085, 428, 70, 219, 308, 1083, 122, 315, 25, 967, 1030, 691, 483, 720, 837, 636, 589, 1003, 582, 1073, 690, 664, 602, 758, 475, 842, 791, 670, 856, 1048, 728, 705, 618, 657, 806, 784, 490]. **Bases** [1092, 1088, 1089, 9, 1090, 442, 539, 1089]. **Batch** [277, 32, 908]. **Batched** [348, 242, 251, 16]. **Bayesian** [976]. **BCNF** [389]. **be** [474]. **Behavior** [452, 213, 468, 429, 535]. **Behind** [946]. **Being** [930]. **Belief** [993]. **Benchmark** [394]. **Benchmarking** [953]. **benchmarks** [535]. **Benefit** [302]. **Benefits** [76]. **Best** [904]. **Better** [1079, 821]. **Between** [77, 749, 623, 809, 944, 754]. **BEVA** [927]. **Beyond** [398, 833, 459, 945, 821]. **Bi** [1068]. **Bi-objective** [1068]. **Big** [1073]. **Binary** [108]. **bindings** [540]. **bitmap** [675, 622, 747]. **Blazes** [974]. **blind** [660]. **Block** [935, 1]. **Blocking** [37]. **Blocks** [468]. **Bloom** [1001, 992]. **Board** [897, 922, 952, 977, 1011]. **BonXai** [966]. **Boolean** [866, 841, 443]. **Boosting** [912]. **Borealis** [692]. **both** [734]. **Bound** [1058]. **Bounded** [983, 941, 982, 456, 449, 1041, 182, 326, 843, 1039]. **Bounds** [1084, 899, 771, 866, 601, 705]. **Bouquets** [934]. **bridge** [711]. **Bringing** [742]. **Broadcast** [506]. **browsing** [511]. **Bucket** [222]. **bucketing** [592]. **Buffer** [229, 41, 341, 281]. **Buffers** [31]. **Building** [468, 980, 944]. **Bulk** [1025, 578]. **Bulk-loading** [1025]. **business** [488]. **Byzantine** [262].

Cache [942, 227, 697, 532, 485, 643]. **Cache-Oblivious** [942, 697]. **Caching** [361, 410]. **Cactis** [338]. **CAD** [254]. **Calculating** [104]. **Calculus** [62, 366, 305, 322, 403, 377, 352, 531]. **callback** [490]. **callback-based** [490]. **CALM** [918]. **CALM-Conjecture** [918]. **candidate** [601]. **Capabilities** [61]. **Capacity** [360, 754]. **Capture** [84, 1051]. **Capturing** [799, 933, 614, 865, 695]. **Cardinal** [809]. **Cardinality** [328, 1085, 387, 913, 807]. **Carlo** [792]. **Cartesian** [149]. **CASDAL** [47]. **Case** [432, 945, 827, 1078, 750, 542, 1036, 420]. **CASE-DB** [420]. **Casper*** [744]. **CAS}SM** [47]. **Catching** [1020]. **categorical** [870]. **Category** [1084]. **Causes** [1077]. **Cautious** [407, 248]. **Centrality** [1083]. **Centralized** [257]. **centric** [680]. **Certain** [212, 923, 810]. **Chaining** [143]. **change** [834]. **Changes** [988, 125, 673, 523]. **Characteristics** [177]. **Characterization** [187]. **Characterizations** [1060, 814]. **Characterizing** [797, 576, 466]. **Charter** [434, 451]. **Chase** [335]. **Checking** [456, 955, 512, 502]. **Checkpointing** [32]. **Chopping** [460]. **ChronicleDB** [1007]. **circuits** [787]. **Citations** [931]. **Cite** [931]. **Citizens** [474]. **City** [1094]. **Class** [85, 975, 474, 174, 522]. **classes** [526]. **Classification** [862, 588]. **Classifier** [987]. **clause** [371]. **Cleaning** [928, 947, 1065, 1040, 638]. **CLIDE** [681]. **client** [485, 490]. **client-server** [485, 490]. **clique** [672]. **cliques** [795]. **close** [792]. **Closed** [972, 788, 767, 672]. **closest** [765]. **Closing** [905]. **Closure** [363, 428, 367, 610]. **Cloud** [1068, 838]. **Cluster** [238]. **Clustered** [232, 167, 60]. **Clustering** [365, 896, 368, 959, 24, 871, 247, 659, 755].

CNN [1027]. **Coalesced** [231, 244]. **CODASYL** [213, 146]. **Codd** [202]. **Coding** [76, 1064, 308]. **Coefficient** [365]. **Coherency** [423]. **coherent** [672]. **Collaborative** [800, 852]. **Color** [358]. **column** [769, 835]. **column-store** [769]. **Combine** [885]. **Combining** [56, 966]. **Comment** [303]. **Comments** [91, 760, 129, 251]. **commerce** [504]. **Commercial** [258]. **Commission** [422]. **Commit** [422, 301, 625]. **common** [488]. **Communication** [468]. **Commutativity** [398, 718]. **Compaction** [215]. **Comparing** [811]. **Comparison** [158, 302, 141]. **Comparisons** [896]. **Compile** [362]. **Compile-Time** [362]. **Compiling** [711]. **complements** [561]. **Complete** [383]. **Completeness** [437, 344, 772, 1037]. **Complex** [1046, 49, 1085, 468, 630, 651, 854, 623, 809, 508]. **Complexity** [936, 1035, 937, 876, 264, 893, 372, 199, 988, 714, 621, 651, 857, 640, 736]. **component** [747]. **Components** [39, 1082]. **Composing** [619]. **Composite** [336, 758]. **Composition** [663, 793]. **compound** [523]. **Comprehensive** [1003, 949, 962]. **COMPRESS** [962]. **Compressed** [1054, 747, 581, 816]. **Compression** [1003, 962, 367, 1041, 844, 821, 622]. **Compromise** [306]. **Compromising** [179, 744]. **Computable** [340]. **Computation** [455, 268, 900, 561, 594, 812]. **Computation-Tuple** [268]. **Computational** [66, 955]. **Computations** [994, 1052, 1027, 1013]. **Computer** [61, 175]. **Computers** [210]. **Computing** [875, 226, 1015, 760, 648, 701]. **Concatenation** [975]. **Concept** [386]. **Concepts** [61, 254, 317, 365, 295]. **Conceptual** [249, 404, 501, 909, 147, 839, 647, 517]. **Concise** [598, 756]. **Concurrency** [259, 307, 398, 94, 93, 195, 230, 358, 316, 292, 345, 237, 401, 353, 447, 449, 416, 123, 196, 224, 129, 209, 423, 52, 74, 624]. **Concurrent** [338, 108, 142, 312]. **condensation** [691]. **condensation-based** [691]. **Conditional** [695, 617]. **Conditions** [406, 364, 467, 575]. **Conference** [1094, 1092, 1088, 1089, 1090, 679, 253]. **Confidence** [705]. **Confidential** [306]. **configuration** [752]. **Conflict** [393, 218]. **Conflict-free** [218]. **Conflicts** [181]. **Conjecture** [918]. **Conjunctive** [1035, 1055, 1063, 459, 825, 960, 1051, 1060, 862, 810]. **Connected** [78, 1082, 813]. **Consecutive** [232]. **Consensus** [448, 625, 74]. **Consequences** [137, 203]. **Consistency** [426, 277, 225, 357, 392, 159, 485, 499]. **Consistent** [325, 960, 187, 855, 872]. **Constant** [1032, 389, 399]. **Constant-Delay** [1032]. **Constant-Time** [399]. **Constant-Time-Maintainable** [389]. **Constrained** [420, 1038, 566]. **Constraint** [157, 665, 493]. **Constraints** [1005, 456, 947, 300, 104, 960, 1040, 586, 500, 738, 729, 614, 842, 731, 489, 754]. **construct** [517]. **Construction** [1084, 101, 770, 631, 708]. **Constructs** [35]. **Containing** [431]. **Containment** [459, 1042, 862, 558]. **Content** [151, 582]. **Contention** [401]. **Context** [1066]. **Continuous** [762, 783, 1036, 799, 733, 576, 586, 698, 835, 724, 782, 694]. **continuously** [633]. **Control** [259, 307, 398, 94, 93, 195, 230, 40, 358, 316, 401, 353, 132, 248, 447, 416, 123, 196, 224, 129, 392, 209, 423, 52, 74, 500, 538, 624]. **Conversion** [155]. **Converting** [396]. **Coordination** [974, 97, 822]. **Coping** [785]. **coprocessing** [741]. **Copy** [380, 74]. **Core** [1047, 597, 796, 672]. **Correct** [162, 187, 780]. **Correctness** [426, 94, 201, 196, 502]. **Correlated** [703]. **correlation** [630]. **Correlations** [875]. **Correspondence** [911, 204, 203]. **Corresponds** [144]. **Corrigenda** [496, 109].

Corrigendum [188, 388]. **Cost** [26, 1003, 1073, 416, 874, 386, 246, 302, 552, 909, 25, 524, 613, 664, 504]. **Cost-based** [1003, 1073, 664]. **Cost-Benefit** [302]. **Cost-Effective** [909]. **Costs** [267]. **Counting** [951, 975, 888, 1069, 356]. **Counts** [48]. **Coupled** [62]. **Courts** [208]. **Cover** [365]. **Cover-Coefficient-Based** [365]. **Coverage** [901]. **Covers** [298]. **crawlers** [567]. **Creating** [319]. **Criteria** [426, 21]. **Criterion** [196]. **Crowdsourcing** [1002]. **CSP** [894]. **Cubes** [885]. **Currency** [826]. **Current** [415]. **Curves** [1025, 871]. **Cyclotron** [801].

d [144]. **DAPLEX** [120]. **Dark** [931]. **Data** [991, 412, 361, 318, 889, 282, 903, 997, 832, 317, 894, 186, 62, 393, 1079, 3, 461, 1053, 43, 53, 316, 597, 1066, 826, 537, 1094, 330, 49, 291, 353, 1073, 114, 87, 1067, 1092, 1088, 1018, 995, 51, 416, 424, 81, 50, 878, 1071, 895, 256, 953, 1089, 67, 86, 885, 37, 418, 1012, 907, 9, 925, 274, 884, 929, 990, 206, 1083, 1090, 35, 957, 120, 1040, 520, 125, 302, 963, 944, 395, 1037, 388, 375, 976, 799, 691, 797, 576, 742, 786, 586, 524, 636, 572, 650, 779, 589, 726, 525, 823, 820, 757, 785, 695, 844]. **data** [555, 658, 746, 729, 626, 822, 814, 788, 763, 454, 835, 792, 715, 564, 638, 852, 532, 724, 475, 782, 689, 476, 612, 760, 805, 21, 648, 593, 854, 516, 870, 541, 646, 632, 629, 855, 644, 682, 29, 675, 732, 545, 674, 775, 484, 728, 735, 609, 47, 801]. **Data-completeness** [1037]. **data-driven** [822]. **data-partitioning** [632]. **Data-Swapping** [206]. **Database** [1091, 304, 328, 452, 283, 318, 8, 65, 61, 139, 258, 98, 400, 266, 91, 243, 332, 190, 124, 62, 31, 324, 208, 152, 465, 189, 1081, 376, 244, 916, 930, 119, 212, 84, 144, 150, 127, 225, 68, 96, 320, 20, 191, 213, 229, 316, 227, 288, 313, 154, 184, 262, 271, 474, 14, 471, 57, 261, 130, 389, 172, 2, 1067, 338, 357, 410, 205, 219, 41, 107, 507, 67, 27, 273, 196, 235, 342, 267, 216, 276, 349, 387, 100, 99, 234, 274, 38, 346, 239, 430, 373, 423, 314, 34, 915, 52, 439]. **Database** [238, 281, 246, 55, 382, 263, 270, 339, 19, 63, 155, 210, 236, 28, 54, 7, 102, 183, 297, 1093, 319, 488, 403, 436, 872, 159, 233, 192, 211, 1037, 356, 352, 611, 388, 165, 10, 1, 25, 115, 145, 147, 166, 1095, 1030, 134, 527, 106, 556, 649, 838, 515, 502, 535, 624, 792, 528, 750, 487, 850, 5, 594, 719, 845, 634, 477, 579, 751, 752, 285, 793, 647]. **Database-Intensive** [100]. **Databases** [169, 426, 1078, 413, 171, 168, 103, 470, 983, 94, 93, 140, 230, 82, 365, 201, 453, 458, 1068, 48, 185, 358, 406, 109, 105, 69, 421, 337, 36, 131, 926, 313, 462, 323, 892, 886, 457, 180, 112, 22, 362, 351, 116, 128, 78, 350, 101, 176, 235, 431, 133, 223, 405, 331, 97, 392, 435, 306, 469, 322, 92, 156, 296, 187, 118, 72, 15, 378, 88, 463, 125, 255, 403, 257, 42, 74, 188, 252, 315, 450, 301, 364, 179, 79, 578, 548, 740, 549, 762, 722, 536, 482, 506, 534, 767, 699, 759, 777]. **databases** [697, 511, 690, 652, 673, 835, 703, 708, 748, 731, 547, 580, 645, 711, 587, 606, 791, 661, 493, 113, 734, 812, 584, 481, 672]. **Dataflow** [998, 332]. **datalog** [494, 973, 894, 486, 943]. **datasets** [706, 635, 754]. **DB** [420]. **DBMS** [954, 1077, 949, 613]. **DBO** [712]. **DBSCAN** [965, 970]. **DBTG** [42]. **Deadlock** [173, 153]. **decaying** [1001]. **Decentralized** [939]. **Deciding** [906, 1059]. **Decision** [20, 359, 302]. **Decision-Theoretic** [359]. **Declarative** [918, 973, 940, 453, 928, 578, 822]. **Declustering** [472]. **Decompiling** [146]. **Decomposition** [314, 13, 483, 787]. **Decompositions** [111, 1074]. **Decoupling** [592]. **Deduction** [411]. **Deductive** [470, 458, 362, 392, 430, 469, 463, 547, 285]. **Deep** [1027]. **Deferred** [241]. **Definability** [936]. **Definable** [988]. **Define** [126]. **defined** [509, 554, 613, 1080]. **Defining** [43, 1013]. **Definition** [462, 147]. **definitions** [814, 864]. **Degradation** [172].

Degree [983]. **Delay** [1032]. **Deletion** [825, 1070, 869]. **delivery** [636]. **Deltas** [474]. **Dense** [135, 1082, 672]. **Densest** [1043]. **dependence** [529]. **Dependencies** [111, 103, 17, 950, 1081, 53, 36, 999, 1026, 264, 1018, 1019, 167, 1015, 948, 86, 314, 1024, 958, 969, 911, 395, 1037, 550, 823, 619, 695, 814, 161, 371, 663, 790, 583]. **Dependency** [218, 489]. **Depth** [978, 1074, 329]. **Derivation** [409]. **Derived** [340, 461]. **Description** [556, 130]. **descriptions** [598]. **Descriptors** [200]. **Design** [169, 259, 363, 464, 66, 266, 1045, 404, 376, 119, 126, 313, 181, 133, 267, 519, 234, 274, 439, 12, 319, 909, 1037, 89, 784, 115, 147, 166, 687, 515, 750, 507, 5, 721, 488, 647, 481]. **Designed** [984]. **Designing** [972, 205, 796, 199, 100]. **Designs** [148, 839]. **Desired** [46]. **Detecting** [727, 340, 969]. **Detection** [393, 1071, 153, 961, 834, 789]. **Determinacy** [766]. **Determination** [37, 77]. **Determining** [826, 161]. **Determinism** [906]. **deterministic** [591]. **Developing** [49, 528]. **Development** [150, 198]. **Dichotomies** [926, 1009]. **Different** [942]. **Different-Sized** [942]. **Differential** [169, 15, 790, 958, 911, 908]. **Differentially** [1068, 1013]. **Differentiating** [805]. **Difficulty** [64]. **digital** [504]. **dimensional** [524, 537, 765]. **dimensionality** [549]. **Dimensions** [1050]. **Direct** [363, 1063]. **Directed** [1043, 781]. **directions** [809]. **Disambiguation** [1071]. **Disaster** [380]. **DisC** [901]. **Discovering** [889, 1026, 560]. **Discovery** [997, 1043, 1024, 963, 911, 510, 790]. **discrete** [835, 632]. **discrete-valued** [835]. **discriminative** [618]. **Disjunctive** [894, 950, 486]. **Disk** [417, 290, 149, 197, 342]. **Disks** [245]. **Disorder** [326]. **Dissemination** [443, 518]. **Dissimilarity** [901, 688]. **Distance** [511, 900, 749, 600, 842, 610]. **distances** [554]. **Distortion** [256]. **Distributed** [974, 318, 94, 93, 140, 230, 201, 833, 225, 421, 191, 154, 184, 271, 877, 330, 112, 272, 985, 878, 6, 97, 276, 153, 990, 52, 92, 378, 545, 872, 159, 301, 692, 589, 698, 532, 476, 612, 634, 682, 812]. **Distribution** [256]. **Distributive** [391]. **Diversification** [876, 901]. **Diversity** [901, 843]. **divide** [659]. **divide-and-merge** [659]. **DML** [146]. **Do** [931]. **Doable** [1052]. **Document** [1032, 1014, 837]. **documents** [577, 590, 777, 860]. **does** [494]. **Domain** [638, 352, 647]. **Domain-independent** [638]. **DomainNet** [1071]. **Domains** [131, 274, 541]. **Dominance** [1029]. **Domination** [875]. **double** [660]. **double-blind** [660]. **Doubly** [364]. **Driven** [468, 913, 822, 570]. **DTD** [966]. **DTDs** [756]. **Duplicate** [186, 1062, 789]. **Duration** [447]. **Dynamic** [379, 144, 80, 291, 357, 321, 224, 331, 632, 122, 988, 520, 1082, 241, 310, 10, 691, 522, 542, 566, 480, 559]. **dynamically** [599, 582].

eager [528]. **EAS** [198]. **EAS-E** [198]. **EDBT** [686]. **Edge** [173]. **Edit** [900, 600, 842, 849]. **edit-distance** [842]. **Editor** [283]. **Editorial** [879, 904, 897, 931, 922, 952, 977, 1011, 1021, 660, 977, 1011]. **Effect** [347]. **Effective** [567, 909, 333, 531]. **effectively** [778]. **Effectiveness** [365]. **Effects** [34]. **Efficiency** [1025, 134]. **Efficient** [412, 85, 335, 984, 720, 1047, 910, 1038, 1068, 722, 1053, 456, 820, 1062, 1064, 1014, 604, 1058, 730, 888, 566, 142, 708, 874, 678, 37, 133, 223, 907, 870, 900, 661, 898, 265, 1024, 980, 827, 765, 944, 1031, 245, 1010, 789, 967, 927, 786, 585, 506, 502, 729, 770, 781, 760, 648, 849, 622]. **Efficiently** [82, 1065]. **elastic** [838]. **ElasTraS** [838]. **electronic** [504]. **elements** [557, 760, 648]. **Elevating** [474]. **ELFS** [280]. **Elimination** [186, 935, 469]. **Emancipating** [526]. **Embedded** [998, 343, 1037, 835, 663]. **Embedding** [791, 693]. **Embedding-based** [791]. **embeddings** [667, 600]. **Empirical**

[1033, 1025, 423, 1076]. **EmptyHeaded** [971]. **Enabling** [1070, 822]. **Encipherment** [4]. **Enclaved** [1068]. **Encoding** [171, 456]. **encountered** [523]. **Encryption** [127, 757, 1067]. **End** [261]. **ENFrame** [925]. **Engine** [971, 712, 607]. **Engineering** [987]. **Engines** [1070, 980]. **English** [280]. **Enhancements** [183]. **Enhancing** [38]. **Ensuring** [499]. **Entangled** [822]. **Enterprise** [944]. **Entities** [940, 1075]. **Entity** [3, 381, 405, 638]. **Entity-Relationship** [3, 381, 405, 638]. **entropy** [807]. **Enumeration** [1032, 1035, 1055, 1014]. **Environment** [288, 525, 689, 647]. **Environments** [401, 559]. **ephemeral** [478]. **Equi** [884]. **Equi-Join** [884]. **Equijoin** [378]. **equivalence** [798]. **Error** [1001, 432, 1041, 927, 771, 616, 707]. **Error-Tolerant** [927]. **Escrow** [278]. **Essence** [915]. **Essential** [588]. **estimates** [705]. **Estimating** [328, 979, 715, 671, 387, 246]. **Estimation** [1085, 1069, 913, 46, 661, 807, 704]. **estimations** [670]. **Estimators** [390, 1033]. **Euclidean** [965]. **Evaluating** [580, 1009, 751]. **Evaluation** [408, 259, 363, 984, 458, 1038, 212, 833, 288, 892, 95, 407, 1041, 1034, 30, 445, 423, 1039, 71, 720, 774, 548, 585, 569, 574, 850, 21, 545]. **Even** [1082]. **Event** [1046, 1065, 1007, 854]. **evolution** [523, 480]. **Evolutions** [932]. **Exact** [936, 951, 813, 956, 1060, 908, 849, 688]. **E}xample** [603, 937, 346]. **Examples** [919, 963, 797]. **exceptional** [727]. **Exceptions** [260, 514]. **exchange** [597, 785, 658, 788, 852]. **exchanged** [742]. **Exchanging** [593]. **Execution** [190, 201, 461, 939, 806]. **Exemplar** [1004]. **Expansions** [170, 287, 418]. **expensive** [497]. **Experimental** [1003, 1041, 329]. **Experiments** [77]. **Explaining** [354]. **Exploiting** [586, 947, 808]. **Exponential** [182]. **export** [779]. **Exporting** [681]. **EXPRESS** [29]. **Expressing** [579]. **Expression** [920, 848, 841]. **Expressions** [85, 335, 455, 951, 975, 104, 242, 396, 756, 857]. **Expressive** [989, 832, 1008, 650]. **Expressiveness** [1045, 714, 640, 966, 717]. **Extended** [62, 446, 144, 669, 381, 478, 425, 405, 322, 403]. **Extendible** [80]. **Extending** [84, 949, 305, 297, 868]. **Extensible** [317, 400, 850]. **Extension** [31, 218, 544, 541]. **External** [882, 126, 1044, 860]. **Extra** [1078]. **Extracting** [585]. **Extraction** [928, 299, 909, 725, 732, 29].

F [403]. **Facilitate** [441]. **Facility** [43, 126, 100, 7]. **Fact** [194, 955]. **Factor** [920]. **Factorised** [899]. **Factors** [158, 37, 63, 141]. **Failures** [422]. **Fairest** [1050]. **Fairness** [906]. **Family** [1083]. **Fast** [991, 96, 320, 227, 80, 551, 1074, 457, 995, 959, 872, 796, 629, 688]. **Faster** [921]. **Fault** [692]. **Fault-tolerance** [692]. **FDs** [508]. **Feature** [657, 924]. **Feature-based** [657]. **Features** [260, 38, 134]. **Federal** [208]. **Fields** [73, 835]. **Fifth** [235]. **File** [151, 148, 144, 288, 193, 51, 107, 1086, 287, 326, 418, 207, 336, 1087, 122, 89, 18]. **File-Organization** [89]. **Files** [169, 26, 90, 4, 186, 472, 232, 149, 80, 348, 143, 37, 242, 251, 60, 15, 16, 45, 33, 505]. **Filling** [871, 1025]. **filter** [856]. **Filtering** [362, 569]. **Filters** [1001, 992, 1016]. **Find** [1082]. **Finding** [1056, 795, 96, 881, 830, 557]. **Fine** [918, 1079, 397, 490]. **Fine-Grained** [918, 1079, 490]. **Fine-Granularity** [397]. **Finite** [419, 341]. **First** [936, 474, 206, 296, 110, 610, 810]. **First-Class** [474]. **First-Order** [936, 610, 810]. **First-Order-Logic** [296]. **Five** [358]. **Five-Color** [358]. **Fixpoint** [458]. **Flat** [396]. **Flexible**

[260, 1029, 538, 850, 487, 562]. **Florence** [1090]. **Flow** [316]. **Fly** [921]. **FO** [983]. **Forensic** [719]. **forensics** [845]. **Foreword** [656, 887, 571, 709, 768, 794, 817, 824, 853, 739, 615]. **Form** [171, 66, 17, 36, 131, 128, 466, 289, 166, 577]. **Formal** [304, 185, 1046, 447, 385, 354, 450, 147, 483]. **Formatted** [26]. **Forms** [918, 406, 334, 489, 583]. **formulas** [568]. **Formulation** [840]. **Forward** [284, 662, 846]. **Foster** [818]. **Foundation** [202, 521, 547]. **Foundations** [217]. **Fourth** [1091]. **FPGA** [856]. **FPGA-based** [856]. **fragment** [730]. **Fragmentation** [265]. **Fragmented** [372]. **Fragrant** [934]. **Frame** [133]. **Framework** [1005, 940, 1046, 962, 987, 964, 925, 1048, 310, 333, 1013, 642, 555, 729, 864, 688, 562]. **Framingham** [1088]. **Free** [197, 960, 218]. **Freedom** [173]. **Frequent** [1005, 893, 599, 557, 566, 760, 648, 618]. **Full** [136]. **Function** [44]. **Functional** [111, 103, 17, 1081, 1026, 1028, 1018, 1015, 948, 371, 314, 120, 395, 1037, 695, 651, 787, 583]. **Functions** [370, 1029, 180, 366, 305, 986, 1080, 637, 866, 613, 682]. **Further** [331]. **Future** [1034, 628]. **Fuzzy** [314, 868].

Galileo [249, 283]. **Game** [1012]. **Game-theoretic** [1012]. **Gap** [905]. **gathering** [503]. **General** [358, 1031, 616]. **Generalization** [28, 399]. **Generalized** [412, 43, 57, 395, 609]. **Generalizing** [845]. **generated** [582]. **Generating** [950, 1019, 780, 764]. **Generation** [444, 402, 235, 373, 60, 7, 670]. **generic** [689]. **geographical** [855]. **Geometric** [400, 877, 945, 682]. **getting** [597]. **Given** [46, 663]. **Glass** [1076]. **Global** [181, 553]. **Globally** [187]. **GlOSS** [510]. **Goal** [946]. **Goal-Aware** [946]. **Good** [326, 369]. **Grained** [918, 1079, 490]. **gram** [749]. **Grammar** [40]. **Grammar-Based** [40]. **granularities** [481]. **Granularity** [397, 34, 75]. **Graph** [971, 1078, 832, 1038, 994, 1017, 1026, 1052, 1085, 1065, 428, 883, 917, 239, 1083, 618, 722, 851, 839, 638, 865, 657, 672]. **Graph-Structured** [832]. **Graph-Theoretic** [239, 839]. **Graphical** [283]. **graphics** [741]. **Graphs** [937, 316, 999, 1020, 1075, 935, 964, 1082, 781, 646]. **GraphZeppelin** [1082]. **Grid** [207, 1087]. **Group** [910, 705, 735]. **group-by** [735]. **Grouping** [1062, 592]. **Groups** [1051]. **Growing** [45]. **Guaranteed** [369]. **Guaranteeing** [406]. **guarantees** [707]. **Guarded** [950]. **Guarded-Based** [950]. **Guide** [169].

H [403]. **habitat** [836]. **Handling** [260, 240]. **Hardness** [965, 1084]. **Hardware** [65, 177, 132]. **Hardware-Based** [177]. **Hash** [76, 379, 378, 676]. **Hash-Partitioned** [378]. **Hashing** [11, 231, 244, 292, 80, 170, 240, 321, 1086, 182, 336, 200, 221, 122, 241]. **Having** [366]. **hB** [369]. **hB-Tree** [369]. **HDFS** [944]. **Headed** [342]. **Heavy** [1044, 771]. **Height** [1049, 250]. **Height-balanced** [250]. **Heraclitus** [474]. **Heterogeneity** [440]. **Heterogeneous** [441, 694]. **Heuristic** [136]. **Heuristics** [83]. **Hierarchical** [53, 1006, 193, 707, 116, 242, 24, 854]. **Hierarchies** [33]. **Hierarchy** [81]. **High** [1050, 227, 401, 275, 829, 854, 834, 35, 1007, 980, 134, 524, 569, 765]. **high-dimensional** [765]. **High-Level** [980, 134, 834]. **High-Performance** [275, 1007, 854, 569]. **High-Throughput** [829]. **Higher** [406]. **highly** [612]. **highly-available** [612]. **histogram** [631]. **Histograms** [432, 551]. **Historic** [997]. **Historical** [437]. **Histories** [268]. **History** [456]. **Hitters** [1044, 771]. **Hoc** [117, 884, 957, 1076]. **Homogeneous** [323, 431]. **Homograph** [1071]. **Horizontally** [263]. **Horn** [371]. **Hosting**

[243]. **hot** [599]. **Human** [158, 63, 141]. **Hybrid** [944, 856]. **Hypertree** [1074].

I/O [770, 535, 888, 341, 827, 245]. **I/O-Efficient** [888, 827]. **ICDT** [709, 639, 716]. **Identifying** [1077]. **iDistance** [602]. **IFO** [304]. **Ignorance** [449]. **Impact** [979]. **Implementation** [139, 317, 152, 338, 414, 133, 12, 252, 514, 582, 724, 477]. **Implementing** [65, 470, 57, 87, 528]. **Implication** [471, 814]. **Implications** [307, 212, 86]. **implicit** [717]. **Implied** [157]. **Imprecise** [343]. **Improved** [128]. **Improving** [676, 515, 643, 764, 63, 920, 134]. **In-Situ** [916]. **INCINERATE** [454]. **Inclusion** [969, 848]. **Incomplete** [892, 78, 267, 315, 165, 627, 507]. **Inconsistencies** [928, 1020, 695]. **inconsistent** [699, 759]. **incorporate** [541]. **Incorporating** [738, 167]. **Increase** [345]. **Increasing** [449, 236]. **Incremental** [455, 590, 774, 851, 1052, 1027, 610, 386, 1023, 847, 551]. **Indefinite** [350]. **Independence** [399]. **Independent** [351, 39, 638]. **Independently** [73]. **indeterminacy** [492]. **Index** [433, 491, 64, 83, 570, 143, 182, 287, 341, 329, 443, 880, 762, 708]. **Index-driven** [570]. **Index-Sequential** [143]. **indexability** [641]. **Indexed** [288]. **Indexes** [26, 591, 675, 747]. **Indexing** [513, 1038, 194, 369, 964, 628, 156, 863, 549, 602, 781, 632, 841, 592, 618, 505]. **Indices** [293, 622]. **Inequalities** [1028]. **Inexpressiveness** [1045]. **Inference** [756, 465, 1027, 220, 755]. **Inferential** [273, 44]. **Inferring** [1001, 929]. **Infinite** [419]. **Influence** [69, 1058]. **Information** [361, 260, 284, 928, 299, 693, 330, 70, 1042, 503, 78, 350, 6, 411, 267, 359, 306, 441, 909, 360, 315, 165, 295, 443, 627, 649, 772, 725, 750, 526, 778, 518]. **information-theoretic** [750]. **informative** [764]. **INGRES** [12]. **Inner** [956]. **Input** [733]. **Input-sensitive** [733]. **inputs** [678]. **Insertion** [1001, 1048]. **Insertion-based** [1048]. **Insights** [1079]. **Instance** [413]. **Instances** [917, 526]. **Instant** [776]. **instruction** [643]. **Integer** [470, 1003, 820, 494]. **Integrated** [259, 266, 198, 760, 648]. **Integrating** [626, 532]. **Integration** [915, 608]. **Integrity** [444, 456, 947, 132, 27, 344, 614, 731]. **Intelligent** [410]. **intensional** [593]. **Intensive** [100]. **Interaction** [1012]. **Interactions** [63]. **Interactive** [249, 1004]. **interactively** [681]. **Interface** [324, 49, 245, 603]. **Interfaces** [413, 630]. **Interleaving** [975]. **intermediates** [769]. **Internal** [213]. **International** [1094, 275, 1092, 1088, 1089, 1090]. **Internet** [510]. **Interoperability** [441, 544]. **Interpretations** [157]. **Interpreter** [151]. **Interval** [33]. **Introduction** [679, 639, 686, 713, 710, 92, 716, 683]. **inverses** [700]. **Inverted** [505, 18]. **Inverting** [684]. **investment** [532]. **Invited** [887, 768, 794, 853]. **Irrelevant** [340]. **Isolation** [1059, 740, 605, 731, 546]. **Issue** [887, 709, 768, 794, 853, 739]. **Issues** [361, 78]. **Issuing** [930]. **Italy** [1090]. **items** [599]. **Itemsets** [881]. **Iterative** [327, 563, 522].

Jobs [873]. **Join** [335, 919, 347, 264, 432, 960, 996, 885, 907, 391, 884, 239, 314, 263, 270, 211, 293, 967, 733, 676, 633, 563, 666, 655, 803, 704, 868]. **Join-Like** [885]. **Joined** [171]. **Joining** [391]. **Joins** [1054, 1078, 1000, 226, 945, 1036, 990, 944, 188, 79, 626, 696, 842, 543, 558, 751, 789]. **joint** [661]. **Journal** [931]. **Judicious** [903].

K-d [144]. **KBs** [834]. **Kent** [203]. **Kernel** [949]. **Key** [472, 269, 960, 730]. **Key-Based** [472]. **Keys** [889, 942, 131]. **Keyword** [910, 874, 737, 690, 755, 778, 840]. **Kinds**

[382]. **know** [753]. **Knowledge** [345, 184, 414, 349, 442]. **Korth** [403]. **KTELO** [1013].

Label [1038]. **Label-constrained** [1038]. **labeled** [749]. **Lake** [1071]. **Language** [370, 151, 249, 972, 317, 260, 158, 474, 49, 414, 205, 1019, 194, 280, 235, 100, 346, 35, 980, 120, 88, 294, 354, 141, 603, 503, 689, 47, 334]. **Languages** [998, 989, 832, 243, 941, 1008, 152, 437, 323, 157, 255, 252, 450, 811, 717, 651, 782, 493, 608]. **Large** [186, 935, 1092, 1088, 1089, 27, 223, 9, 1090, 15, 270, 513, 779, 549, 457, 781, 706, 635, 498, 855, 672]. **large-scale** [706, 498]. **Layered** [915]. **Lazy** [930]. **Learnability** [1060]. **Learning** [919, 861, 937, 1018, 1034, 993, 1039, 488]. **Least** [89]. **Leaves** [144, 418]. **LEMP** [956]. **Level** [52, 35, 980, 1076, 134, 535, 635, 499, 834, 747]. **level-two** [635]. **Levels** [1059, 9, 550]. **lexicographic** [821]. **LH*** [476]. **LH*RS** [612]. **libraries** [504]. **Lightweight** [1003, 985, 891]. **Like** [885, 164]. **Limitations** [951, 237, 70, 697]. **Limited** [461]. **Limiting** [432]. **Line** [169, 1041]. **lineage** [525]. **Linear** [975, 109, 292, 170, 240, 321, 1086, 221, 72, 1023, 356, 908, 848, 820]. **Linear-Time** [356]. **Linearize** [364]. **Linearly** [45]. **Linked** [197]. **Linking** [940, 1075]. **List** [197]. **Listing** [888]. **Lists** [56]. **lived** [478]. **Load** [384]. **Loading** [916, 578, 1025]. **localization** [699]. **Locally** [549, 767]. **Location** [914, 744, 763, 784]. **location-based** [784]. **Lock** [890]. **Locked** [31]. **Locking** [358, 279, 142, 97, 397, 34, 75, 438, 257, 429, 301, 761]. **Locks** [173]. **log** [478]. **Logarithmic** [1074]. **Logging** [397, 802, 478]. **Logic** [936, 355, 150, 923, 296, 364, 536, 787, 553, 610, 810]. **Logic-Based** [355]. **Logical** [266, 213, 424, 252, 481, 767, 814, 535, 547]. **logics** [745, 556]. **Logs** [1065]. **Long** [447, 478]. **Long-Duration** [447]. **Looking** [1076]. **Loss** [299]. **Lossless** [314]. **Lower** [1059]. **LRU** [341]. **LSM** [992, 1070]. **LSM-Engines** [1070]. **LSM-Trees** [992].

M. [403]. **MA** [1088]. **Machine** [332, 1034, 38, 211, 752]. **Machines** [124]. **MacroBase** [991]. **Magic** [467]. **Main** [270, 575]. **Maintainability** [399]. **Maintainable** [389]. **Maintaining** [337, 357, 653, 1022]. **Maintenance** [444, 633, 15, 847, 589, 551, 610]. **Majority** [74]. **Making** [605]. **Management** [8, 62, 208, 20, 229, 1094, 197, 114, 338, 414, 380, 51, 50, 276, 34, 281, 7, 302, 192, 374, 514, 726, 746, 478, 542, 587, 477, 504, 647]. **Manager** [31, 890, 19, 475]. **Managers** [7]. **Managing** [412, 584, 838, 673]. **Manipulating** [43]. **Manipulation** [108]. **Many** [969]. **many-core** [796]. **map** [839, 855, 581]. **Mapping** [1004, 963, 742, 835, 609, 548]. **mappings** [797, 861, 619, 684, 700, 711, 663]. **MapReduce** [828, 873]. **March** [1091]. **Marrying** [972]. **Massive** [1082, 961, 795]. **Massive-Scale** [961]. **Massively** [1000]. **Match** [417, 73, 11, 76, 199, 200]. **Matcher** [177]. **Matching** [193, 912, 1024, 920, 851, 630, 835, 865, 791, 629, 754, 868]. **Materialization** [948, 924]. **Materialize** [367]. **Mathematical** [172, 864]. **Matrices** [1008, 867]. **matter** [811]. **Maximal** [893, 176, 795]. **Maximization** [1058, 807]. **Maximizing** [882, 825]. **Maximum** [956]. **May** [1094]. **Maybe** [202, 350]. **Meaning** [84]. **Means** [65, 362, 179]. **Measures** [1083, 669, 803]. **Measuring** [954]. **Mechanism** [59, 14, 106]. **Mechanisms** [259, 94, 112, 129]. **Meets** [1069]. **Membership** [103, 975]. **Memories** [51, 270]. **Memory** [31, 882, 133, 19, 1044, 352, 576, 586, 685, 860, 5, 575]. **Memory-Resident** [352]. **Merge** [56, 655, 687, 659]. **merge-reduce** [687].

Mergeable [859]. **Merging** [992]. **Meta** [916]. **Meta-Operator** [916]. **metadata** [587, 608]. **Meter** [953]. **Method** [379, 80, 829, 369, 397, 278, 386, 409, 436, 533, 502, 602, 842]. **Methodology** [365, 306, 319, 659]. **Methods** [951, 1053, 320, 123, 308, 691, 483, 497, 516, 840]. **Metric** [696, 513, 554, 570]. **metrics** [616, 694]. **Metrology** [954]. **middleware** [664]. **Minimal** [298, 990]. **Minimization** [831, 83, 136]. **Minimum** [26]. **Mining** [905, 1005, 665, 1053, 867, 893, 691, 650, 585, 537, 630, 703, 566, 775, 806, 672]. **Missing** [933]. **Mixed** [470, 835]. **MMSNP** [894]. **mobile** [506]. **Mobility** [1048, 1030]. **MobilityDB** [1030]. **MOD** [983]. **Model** [304, 282, 168, 317, 951, 62, 3, 461, 84, 53, 473, 323, 381, 130, 414, 22, 475, 424, 272, 341, 217, 1069, 373, 120, 302, 315, 443, 25, 500, 524, 454, 860, 447, 523, 21, 541, 480, 285]. **Model-Based** [315]. **Modeling** [307, 254, 258, 673, 295, 613, 526, 647, 517, 595]. **Models** [446, 877, 172, 70, 1018, 874, 239, 395, 585, 782, 552]. **modern** [796]. **Modified** [436]. **modifiers** [530]. **Modular** [376, 405, 192]. **Modularization** [464]. **Moment** [1033]. **Moments** [997]. **Monadic** [943]. **Monitored** [947]. **Monitoring** [82, 877, 985, 721, 682]. **Monotone** [1029]. **Monotonicity** [918]. **Monte** [792]. **most** [599, 560, 813]. **Moving** [840, 762, 521, 633, 628, 584]. **MR** [388]. **Multi** [36, 218, 675, 747]. **multi-component** [747]. **multi-level** [747]. **Multi-resolution** [675]. **Multi-Valued** [36, 218]. **Multiattribute** [144, 369]. **Multibucket** [418]. **Multicast** [388, 375]. **multicore** [796]. **multicore/many** [796]. **multicore/many-core** [796]. **Multicores** [890]. **multidatabase** [544]. **Multidatabases** [440, 499]. **Multidimensional** [284, 107, 118, 654, 632, 113, 674, 609]. **Multikey** [207, 308]. **Multilevel** [196, 374]. **Multimedia** [414]. **Multiple** [901, 149, 81, 885, 907, 873, 209, 382, 311, 74, 286, 89, 550, 669, 538, 661, 694, 481]. **Multiple-Disk** [149]. **Multiple-Query** [311]. **Multiple-Valued** [89]. **Multiplicative** [986]. **Multiprocessing** [192]. **Multiprocessor** [124, 210, 211]. **MULTISAFE** [192]. **multiscale** [653]. **Multivalued** [103]. **Multiversion** [195, 589, 552]. **Multiversion-based** [589]. **Multiview** [498]. **Multiway** [543, 1072, 135, 869]. **MVDs** [298].

NAIL [519]. **Naïve** [892]. **NaLIX** [689]. **names** [835]. **Native** [587]. **Natural** [49, 205, 194, 836, 689, 334]. **Navigational** [981]. **Near** [1050, 789]. **near-duplicate** [789]. **Nearest** [874, 783, 602, 606, 641, 765]. **nearest-neighbor** [783]. **Necessary** [364]. **Negation** [926]. **Negative** [920]. **Neighbor** [1050, 874, 783, 602, 606, 765, 806]. **neighbor-based** [806]. **neighbors** [641]. **Nested** [455, 448, 164, 1019, 425, 466, 289, 396, 322, 403, 677, 644]. **Nested-Transaction** [448]. **Nesting** [226, 968]. **Network** [990, 255, 734]. **Networking** [918]. **Networks** [906, 914, 163, 962, 56, 175, 6, 830, 976, 921, 795, 758, 596, 634]. **Next** [1034, 373]. **Next-Generation** [373]. **NFQL** [334]. **NJ** [1094]. **nn** [633]. **No** [1078, 244, 403, 388]. **node** [846, 662]. **node-selecting** [846, 662]. **Noisy** [896]. **Non** [358, 632]. **non-ordered** [632]. **Non-Two-Phase** [358]. **Nondeterministic** [1032]. **Nonequivalent** [1080]. **Nonprocedural** [158, 141]. **nonrecursive** [651]. **Normal** [171, 66, 17, 406, 36, 131, 128, 466, 289, 166, 577, 489, 583]. **Normalization** [53, 320]. **Note** [50, 387]. **November** [1090]. **NT** [447]. **NT/PV** [447]. **Null** [425, 145]. **nulls** [785]. **Number** [46, 601, 670]. **Numeric** [1020]. **numerical** [759].

O [388, 770, 535, 341, 245]. **O-Efficient** [888, 827]. **Object** [139, 394, 268, 338, 414, 435, 382, 489, 310, 1095, 556, 762, 539, 531, 502, 613, 547, 804]. **Object-** [382]. **Object-Oriented** [139, 338, 414, 435, 1095, 556, 502, 547, 489]. **object-relational** [613]. **objectbase** [480]. **objective** [1068]. **Objects** [254, 290, 947, 468, 176, 880, 727, 521, 804, 628, 623, 584, 508]. **Oblivious** [942, 866, 697]. **Observing** [836]. **obstacles** [783]. **October** [1090]. **ODE** [732]. **ODMG** [512]. **Offset** [1064]. **Offset-value** [1064]. **OLAP** [614, 661]. **OLTP** [643, 872]. **On-Line** [169]. **On-the-Fly** [921]. **One** [321, 828, 1036]. **One-Access** [321]. **One-Pass** [828]. **One-time** [1036]. **Online** [903, 996, 816, 921, 762, 708]. **Only** [154]. **Ontological** [886, 517]. **ontologies** [647]. **Ontology** [894, 732, 647]. **Ontology-assisted** [732]. **Ontology-Based** [894]. **OODBMS** [490]. **opaque** [835]. **Open** [972, 422, 1031]. **Open-source** [1031]. **Operational** [177]. **Operations** [190, 394, 162, 347, 142, 32, 372, 263, 125]. **Operator** [916, 885]. **Operators** [202]. **opportunities** [697]. **Optical** [290, 245]. **Optimal** [417, 73, 1054, 1078, 148, 914, 992, 309, 299, 1000, 226, 432, 402, 1015, 32, 6, 1036, 199, 239, 751, 754, 771, 707]. **Optimality** [1025, 121, 871]. **Optimism** [225]. **Optimistic** [353, 123]. **Optimization** [85, 335, 400, 620, 355, 509, 1068, 421, 309, 271, 886, 497, 175, 362, 366, 329, 263, 311, 409, 463, 352, 71, 556, 677, 479, 652, 621, 532, 522, 858, 634, 841]. **Optimizations** [998, 924]. **optimize** [578]. **Optimized** [1049, 668, 537]. **optimizer** [680, 725]. **Optimizing** [837, 1001, 531, 664, 164, 1036, 378, 622, 908, 579]. **Optimum** [64, 45]. **OQL** [512]. **Order** [936, 1055, 1053, 269, 1067, 250, 226, 296, 1072, 867, 821, 610, 494, 810, 619]. **Order-Preserving** [269, 1053, 1067, 867]. **Orderability** [426]. **ordered** [749, 541, 632]. **Orders** [1063]. **Oregon** [1091]. **Organization** [144, 232, 95, 193, 326, 336, 89, 1, 18]. **Organizations** [287, 418, 122]. **Oriented** [282, 139, 338, 414, 273, 435, 382, 1095, 556, 502, 547, 489]. **Otherwise** [439]. **Out-of-core** [672]. **Outerjoin** [479]. **Outlier** [961]. **outlying** [727]. **Output** [1000, 775, 360]. **Output-Optimal** [1000]. **Outsourced** [884, 757, 735]. **Overcoming** [592]. **Overflow** [222, 143, 240]. **Overflow-Handling** [240]. **Overhead** [301, 586]. **overlapping** [552]. **Overview** [283, 519]. **Owner** [62]. **Owner-Coupled** [62].

packed [685]. **packed-memory** [685]. **Packing** [1025]. **Padding** [1068]. **Page** [410, 81, 567, 624]. **page-server** [624]. **PageRank** [1010]. **Pages** [197]. **Paging** [41]. **Painless** [880]. **pair** [765]. **Paper** [904, 931]. **Papers** [253, 931, 679, 768, 794, 853]. **Parallel** [998, 190, 189, 916, 1074, 1000, 214, 368, 770]. **Parallelism** [98]. **Parallelizability** [1025]. **Parallelization** [1017]. **Parallelizing** [994]. **Parameter** [993]. **parsing** [18]. **Partial** [417, 73, 11, 76, 833, 170, 287, 418, 397, 199, 200, 1072]. **Partial-Match** [73, 11, 76, 199, 200]. **Partially** [31]. **partition** [842, 285]. **partition-based** [842]. **Partitioned** [472, 225, 337, 291, 279, 331, 263, 378, 236]. **Partitioning** [234, 238, 58, 632, 592]. **Pass** [828]. **past** [628]. **PATAXÓ** [642]. **Path** [832, 569, 57, 781, 1009, 1051]. **Path-tree** [781]. **Paths** [187, 830, 857]. **Pattern** [984, 177, 943, 851, 703, 865, 629, 819, 806]. **Patterns** [937, 798, 601]. **Peer** [658]. **Penalties** [1001]. **people** [808]. **Perfect** [336]. **Perform** [239]. **Performance** [408, 259, 307, 363, 31, 189, 212, 290, 227, 288, 275, 95, 261, 407, 415, 170, 326, 369,

342, 418, 38, 30, 423, 228, 1007, 460, 19, 183, 257, 429, 360, 548, 676, 569, 485, 643, 854]. **periodicity** [500]. **Permission** [353]. **permissions** [562]. **Persistent** [1070, 1057]. **Personalized** [1010, 800]. **Personalizing** [758]. **perspective** [621]. **Perturbation** [436, 516]. **Perturbations** [955]. **Phase** [358, 279, 429]. **Physical** [168, 687, 213, 313, 27]. **Pipelined** [214]. **Pipelines** [1079]. **Pipelining** [87]. **Placement** [974, 990, 388, 375, 532]. **plain** [870]. **Plan** [934]. **Planning** [40, 1048]. **Platform** [828]. **Platforms** [1073]. **PODS** [709, 739, 656, 713, 683]. **Pointer** [42]. **Points** [148, 45, 633]. **policies** [636, 567, 757, 538]. **Policy** [32, 342, 388, 375]. **Polymorphism** [465]. **Portable** [205]. **Portland** [1091]. **positions** [628]. **Possible** [1053]. **Possible-world** [1053]. **PostGIS** [1030]. **PostgreSQL** [1030]. **Power** [1008, 650]. **Practical** [169, 978, 206, 439]. **practice** [863]. **Precisely** [466]. **Predicate** [62, 309, 33, 569]. **predicates** [509, 585, 701]. **Predicting** [452, 1034]. **Prediction** [877]. **predictive** [565]. **Preference** [568, 850]. **preferences** [758, 793]. **Prefetching** [1073, 54, 620, 676]. **Prefix** [23]. **presence** [783]. **Present** [904, 628]. **Preserving** [269, 884, 691, 1053, 693, 867, 777, 1067, 499, 728]. **Pricing** [895]. **Primary** [960]. **Principles** [1091, 229, 163, 374]. **Prioritizing** [991]. **Privacy** [763, 884, 908, 691, 744, 729, 864, 775, 728]. **Privacy-aware** [763]. **Privacy-Preserving** [884, 691, 728]. **Private** [1068, 978, 883, 895, 939, 976, 1013, 784]. **PrivBayes** [976]. **Probabilistic** [973, 875, 649, 534, 473, 539, 926, 573, 964, 925, 702, 356, 799, 738, 867, 715, 487, 804]. **probabilities** [786]. **Probability** [256, 866]. **Probing** [240]. **Problem** [936, 103, 157, 273, 220, 58, 814, 813]. **Problem-Oriented** [273]. **Problems** [66, 471, 631]. **ProbView** [487]. **Procedural** [158, 141]. **Procedure** [96]. **Procedures** [297]. **Proceedings** [1092, 1091, 1094, 1088]. **Process** [91, 126, 55]. **processes** [546]. **Processing** [971, 400, 140, 910, 916, 833, 934, 237, 184, 591, 420, 272, 878, 907, 925, 346, 917, 445, 898, 265, 270, 734, 957, 29, 1031, 13, 927, 733, 800, 692, 524, 668, 722, 744, 600, 801, 604, 712, 596, 854, 849, 694, 856, 816, 609]. **Processor** [40, 124, 56, 214, 30]. **Processors** [189, 50, 238, 741, 796]. **Product** [149, 956]. **Production** [444, 535]. **Programming** [973, 470, 243, 465, 474, 88, 134, 820, 522]. **Programs** [974, 327, 1023, 125, 364, 477]. **Progressive** [594]. **Project** [235]. **Projection** [328, 984, 387, 310, 837]. **Projections** [427]. **Prolog** [235]. **Propagation** [432, 825]. **Properties** [160, 325, 81, 871, 727]. **property** [857]. **Proportionality** [1066]. **Propositional** [951]. **Protection** [69]. **Protocol** [412, 358, 97]. **Protocols** [423, 422, 301, 506, 528, 498]. **Prototypes** [360]. **Provenance** [831, 1079, 717, 852, 780]. **Proximity** [803, 1061]. **Proxy** [582]. **Proxy-based** [582]. **Pseudo** [670]. **Pseudo-random** [670]. **publishing** [714, 555, 763, 728]. **Pufferfish** [864]. **pull** [636]. **pull-based** [636]. **PV** [447].

Quadtrees [1054]. **Quality** [912, 725]. **quality-aware** [725]. **Quantification** [457]. **Quantile** [1033]. **quantitative** [703]. **Quasi** [700, 672]. **quasi-clique** [672]. **Quasi-inverses** [700]. **Queries** [417, 832, 983, 919, 910, 1035, 1055, 1063, 932, 117, 914, 1038, 930, 48, 109, 105, 949, 926, 327, 892, 174, 390, 420, 1085, 459, 1022, 146, 1028, 960, 885, 964, 342, 1009, 943, 1036, 907, 385, 986, 427, 1051, 72, 378, 178, 1060, 377, 1010, 1061, 908, 1080, 179, 799, 512, 576, 586, 513, 548, 843, 509, 846, 568, 637, 844, 531, 773, 604,

836, 822, 497, 664, 633, 862, 758, 724, 782, 858, 540, 18, 580, 671, 371, 766, 804, 662, 606, 661, 579, 694, 734, 702, 565, 559, 819, 840, 863]. **Query** [972, 667, 455, 951, 400, 140, 40, 1008, 152, 982, 201, 355, 158, 458, 419, 979, 437, 833, 954, 876, 421, 934, 309, 334, 323, 271, 877, 886, 777, 968, 205, 175, 1042, 362, 164, 214, 960, 272, 878, 1034, 993, 899, 346, 891, 634, 898, 265, 311, 980, 409, 294, 255, 1039, 252, 220, 354, 141, 352, 450, 13, 955, 71, 46, 927, 733, 556, 524, 620, 603, 717, 677, 585, 649, 668, 722, 699, 479, 801, 630, 741, 652, 680, 712, 621, 651, 503, 532, 522, 596, 645, 721, 849, 629, 493, 723, 545, 810, 816, 735]. **query** [609, 744]. **Query-Answers** [993]. **Query-preserving** [777]. **Query-sensitive** [667]. **Querying** [989, 779, 536, 759, 349, 587, 627, 837, 698, 521, 808, 681]. **Quintary** [107]. **Quorum** [412, 448, 291]. **quorums** [564].

R [8, 117]. **R*** [276]. **Radii** [901]. **RAMP** [938]. **Random** [4, 277, 1055, 105, 935, 996, 436, 921, 516, 670]. **Random-Order** [1055]. **Range** [882, 978, 674, 1016, 870, 701]. **Rank** [1056, 652, 803, 751]. **rank-aware** [652]. **Ranked** [1063, 678]. **Ranking** [875, 649, 702, 784]. **ranking-aggregate** [702]. **Rapid** [133]. **Rationale** [343]. **RDBMS** [574, 595]. **RDF** [972, 981, 834]. **Reachability** [1038, 781]. **Reactive** [392]. **Read** [154]. **Read-Only** [154]. **Readings** [1093, 1095]. **Real** [408]. **Real-Time** [408]. **Realization** [374]. **Reasoning** [404, 790, 911, 395, 500, 820, 730, 488]. **rebalancing** [869]. **receivers** [533]. **Recognition** [1046]. **reconstruction** [767]. **Record** [186, 70, 37, 223, 368, 247]. **Record-Based** [70]. **Records** [290, 46]. **Recovery** [169, 259, 98, 230, 189, 380, 397, 228, 520, 742, 802, 624]. **Recursion** [1074, 469]. **Recursive** [126, 221, 364]. **recycling** [769]. **reduce** [586, 687]. **Reduced** [298]. **Reducing** [915]. **reduction** [549]. **Redundancy** [76, 466, 89, 750]. **Redundant** [81]. **Referees** [495]. **Reference** [213, 535]. **referential** [553]. **refinement** [687]. **refresh** [567]. **regions** [843, 809]. **Register** [51]. **Regression** [306]. **Regret** [1056, 986, 1039]. **Regret-bounded** [1039]. **Regular** [941, 975, 1014, 1009, 943, 1051, 920, 756, 848, 857]. **Regular-Expression** [920]. **regulating** [757]. **Reinforcement** [1039]. **Related** [66]. **Relation** [151, 328, 160, 347, 137, 219, 176, 217, 372, 387, 35, 204, 203]. **Relation-Based** [151]. **Relational** [971, 85, 8, 413, 65, 171, 455, 138, 66, 103, 266, 202, 190, 324, 82, 453, 437, 84, 406, 162, 53, 473, 949, 36, 131, 313, 327, 323, 174, 14, 57, 741, 390, 226, 157, 383, 146, 1018, 214, 987, 104, 351, 782, 116, 128, 350, 101, 405, 44, 366, 274, 30, 305, 239, 314, 322, 156, 281, 246, 155, 88, 183, 403, 188, 377, 352, 450, 608, 115, 166, 134, 79, 745, 548, 677, 568, 555, 777, 613, 652, 303, 561, 787, 5, 737, 541, 477, 644]. **Relations** [111, 17, 340, 343, 1075, 459, 425, 101, 466, 391, 289, 39, 378, 145, 507, 635]. **Relationship** [3, 381, 405, 388, 375, 638, 517]. **Relationships** [77, 515, 623]. **Relative** [772]. **Release** [976]. **Reliability** [112]. **Remote** [380, 445]. **Removal** [1062]. **Removing** [562]. **Reordering** [821, 479]. **Reorganization** [148, 32, 45, 10]. **Repair** [699, 1065]. **Repairability** [941]. **Repairing** [1081, 759, 611]. **Repairs** [1015]. **Repetitive** [117]. **Replicas** [330]. **Replicated** [412, 230, 393, 337, 357, 449, 416, 388, 375, 731]. **Replication** [181, 872, 564, 528, 498, 484]. **Report** [275]. **Reporting** [1044]. **Representation** [419, 163, 793]. **Representations** [998, 899]. **Representative** [917]. **Representatives** [1056]. **Representing** [627, 405, 521]. **reprinted** [1089]. **requests** [806]. **requirements** [576]. **rescue** [619].

Resident [352]. **Resolution** [440, 675]. **Resolutions** [945]. **Resolving** [181, 220]. **Resource** [97]. **Resources** [6]. **Respect** [46]. **Responding** [179]. **Response** [210, 958]. **Restart** [227, 935]. **Restoration** [520]. **Restrictions** [902]. **Restructurers** [87]. **Restructuring** [9, 99, 29]. **Result** [876, 901, 764, 755]. **Results** [979, 432, 331, 899, 329, 360, 649, 805]. **Retrieval** [73, 361, 324, 11, 290, 232, 284, 194, 321, 359, 199, 200, 295, 333, 649, 506]. **Retrospection** [102]. **Return** [755]. **Revealing** [178]. **Reverse** [785, 748, 874]. **Reversible** [1067]. **reviewing** [660]. **Revisited** [1058, 75, 970, 958, 911, 204]. **Revisiting** [846, 819]. **Rewiring** [921]. **Rewriting** [982, 637, 886, 766]. **RFID** [844, 947]. **RFID-data** [844]. **RFID-Monitored** [947]. **Rigorous** [439]. **Ring** [1078]. **Road** [914, 962]. **Robust** [726, 1064, 934, 878, 881, 384, 730]. **Robustness** [191, 1059]. **role** [647]. **Rollbacks** [397]. **Root** [1077]. **rotating** [5]. **Roth** [403]. **Route** [1048]. **Routing** [384]. **rows** [821]. **Rule** [370, 400, 409, 588, 477]. **Rule-Based** [370, 400]. **Rules** [452, 464, 444, 461, 383, 527, 537, 553].

S [834]. **Safe** [493, 494]. **Safety** [339, 377]. **Sample** [105]. **Sampling** [1050, 1058, 1085, 668, 705]. **Sampling-Based** [1085, 705]. **Satisfiability** [471]. **Scalable** [938, 712, 890, 995, 828, 993, 939, 733, 838, 476, 612]. **Scale** [905, 961, 706, 498]. **Scaling** [360]. **SCALLA** [828]. **Scan** [342]. **SCANRAW** [916]. **Scans** [341]. **Schedulers** [248]. **Scheduling** [408, 1073]. **Schema** [283, 324, 932, 126, 343, 835, 966, 99, 963, 797, 742, 501, 861, 619, 684, 700, 693, 502, 630, 523, 480, 640]. **Schema-Mapping** [963]. **Schemas** [66, 902, 839]. **SchemaSQL** [544]. **Schemata** [116, 115, 147, 166, 489]. **Scheme** [351, 321, 431, 89, 801, 781]. **Schemes** [266, 389, 849]. **Science** [1079]. **scientific** [572, 675]. **Scope** [434, 2, 451]. **score** [587]. **Scotty** [1031]. **SDD** [94, 93, 140, 112, 129, 92]. **SDD-1** [94, 93, 140, 112, 129, 92]. **SDM** [130]. **Search** [4, 978, 284, 108, 167, 874, 224, 44, 60, 1072, 312, 956, 513, 773, 783, 570, 690, 602, 796, 689, 748, 18, 764, 755, 805, 737, 808, 869, 688, 674, 765, 778, 657]. **Searching** [90, 550, 554, 348, 242, 251, 16, 286, 870]. **Second** [619]. **Second-order** [619]. **Secondary** [26]. **Secrets** [178]. **section** [656, 639, 686, 713, 710, 716, 683]. **Secure** [105, 69, 435, 812, 939, 192, 450]. **Security** [48, 68, 22, 331, 516, 113, 118, 436, 233, 106]. **Segmentations** [37, 223]. **Segmented** [27]. **Selected** [253]. **selecting** [846, 662]. **Selection** [26, 64, 1003, 223, 44, 575, 302, 924, 548, 804]. **Selective** [443]. **selectivity** [671]. **Self** [613, 338, 960, 838]. **Self-Adaptive** [338]. **Self-Join-Free** [960]. **self-managing** [838]. **Self-tuning** [613]. **Semantic** [304, 440, 355, 345, 184, 381, 163, 130, 78, 441, 409, 125, 395, 483, 556, 620, 989, 858]. **semantic-based** [483]. **Semantics** [426, 398, 138, 875, 458, 185, 462, 325, 724, 425, 176, 385, 736, 477, 255, 482, 303, 553]. **Semantics-Based** [426, 398]. **Semijoin** [211]. **semirings** [862]. **semistructured** [545]. **sense** [488]. **sensitive** [733, 667, 796]. **sensor** [726, 596]. **sentences** [560]. **Separators** [321]. **September** [1088]. **Sequence** [997, 905, 1005, 829, 579]. **Sequenced** [949]. **Sequences** [268, 782]. **Sequencing** [629]. **Sequential** [994, 348, 143, 242, 251, 16]. **Sequentiality** [54]. **serial** [770]. **Serializability** [300, 499]. **Serializable** [740, 605]. **Series** [959, 549, 791]. **server** [485, 624, 490]. **service** [681]. **service-accessed** [681]. **Services** [330, 744, 784]. **Serving** [342]. **Set** [62, 271, 305, 533, 558]. **Set-Valued** [305]. **Sets** [370, 1029, 459, 218, 588, 779, 566, 598].

Several [261]. **Shadowed** [197]. **Shared** [37, 223, 1048, 806, 812]. **Sharing** [1067, 873, 423, 384, 1080, 569, 852, 490]. **Shift** [51]. **Shift-Register** [51]. **shortcomings** [592]. **Shortest** [830, 610]. **Should** [970]. **Shrink** [655]. **SIDEREUS** [283]. **SIFT** [518]. **SIGACT** [1091]. **SIGACT-SIGMOD** [1091]. **SIGMOD** [1091, 253, 1094, 710, 709, 739, 656, 679, 904]. **SIGMOD/PODS** [739, 656]. **SIGMOD/PODS/ICDT** [709]. **Signature** [379, 472, 299, 402, 849, 505]. **Silberschatz** [403]. **SilkRoute** [555]. **Similar** [193]. **Similar-String** [193]. **Similarity** [1000, 967, 513, 570, 696, 842, 849, 868, 789, 657]. **Simple** [906, 335, 406, 174, 326, 1009, 557]. **Simplicity** [966]. **Simplification** [383, 1041, 479]. **Simplified** [160]. **SimRank** [967]. **SimRank-Based** [967]. **simulation** [865]. **Single** [1010, 660]. **Single-** [660]. **Single-Source** [1010]. **Situ** [916]. **Sixth** [1089]. **Size** [432, 899, 704]. **Sized** [942]. **Sizes** [347, 81]. **sketch** [670]. **sketch-based** [670]. **Sketches** [704]. **SkinnerDB** [1039]. **Skycube** [948, 816]. **Skyline** [948, 907, 827, 786, 720, 748, 594, 654, 734, 816]. **Skyline-Join** [907]. **Skylines** [875, 1029, 815]. **Sliding** [898, 653, 724]. **Sloth** [930]. **Small** [48, 735]. **Smart** [953]. **Snapshot** [731, 740, 605]. **snippets** [764]. **Social** [929, 921]. **Soft** [1081]. **Software** [376, 132]. **Solid** [903]. **Solid-State** [903]. **solution** [760, 648]. **Solutions** [157]. **Solving** [471, 427]. **Some** [244, 35]. **sort** [720, 655]. **sort-based** [720]. **Sort-Merge-Shrink** [655]. **Sorted** [56]. **Sorting** [1062, 1064]. **sound** [780]. **Source** [1010, 510, 1031]. **Sources** [907, 779, 589, 626, 681]. **Space** [1078, 1047, 771, 898, 1025, 121, 463, 871, 696, 621, 765]. **space-complexity** [621]. **Space-Efficient** [1047, 898]. **Space-Filling** [871, 1025]. **Space-optimal** [771]. **Space-Optimality** [121]. **Spaces** [295, 524, 513, 554, 570, 632, 734, 688]. **Spanners** [1032, 1014]. **SPARQL** [968, 857, 736]. **Sparse** [1018]. **Spatial** [910, 1066, 1002, 114, 666, 874, 559, 830, 880, 511, 633, 563, 635, 543, 606, 592, 623, 734, 754, 840]. **Spatial-Keyword** [874]. **spatio** [565]. **spatio-temporal** [565]. **Spatiotemporal** [929]. **special** [656, 639, 686, 713, 710, 709, 739, 716, 683]. **Specialized** [65, 56]. **specific** [560]. **Specification** [1004, 514, 811, 755]. **Specified** [73]. **Specifying** [468]. **Speed** [1040]. **Splitting** [309, 241]. **Spyratos** [303]. **SQL** [677, 1068, 836, 814, 1059, 164, 544, 923, 280, 1034, 385, 610, 939, 595]. **SQL-like** [164]. **standard** [603]. **Star** [175]. **State** [903, 272]. **statement** [530]. **States** [216]. **Static** [743, 452, 984, 362, 858, 691, 527]. **Statistical** [48, 119, 68, 109, 96, 105, 390, 22, 431, 331, 306, 118, 72, 233, 165, 179, 106, 715, 113]. **statistics** [653]. **Steiner** [220]. **Steps** [206]. **Still** [970]. **Stochastic** [421, 792, 815]. **Storage** [903, 171, 258, 1073, 181, 81, 41, 133, 286, 478]. **Store** [151, 1007, 769]. **Stored** [944]. **Strategies** [124, 201, 194, 223, 645, 374, 548]. **Strategy** [1003, 44, 13, 806]. **stratified** [668, 494]. **Stream** [1040, 1031, 692, 600, 746, 591, 653]. **Streaming** [878, 631, 860, 607, 806]. **Streams** [985, 891, 961, 576, 586, 620, 698, 591, 715, 557, 724, 782, 760, 737, 648, 682, 735]. **Strength** [929]. **String** [193, 912, 842, 671, 868]. **Strings** [920]. **Strong** [865, 583, 771]. **Strongly** [249, 243, 872]. **Strongly-Typed** [249, 243]. **structural** [778]. **Structure** [57, 883, 107, 224, 207, 312, 476, 612, 618]. **Structured** [832, 462, 1065, 348, 251, 16, 805, 598]. **Structures** [43, 126, 405, 24, 443, 552, 657]. **Studies** [460]. **Study** [894, 1033, 1076].

Subgraph [1043, 1036]. **Subgraphs** [893, 1083]. **Subkeys** [127]. **Submatrices** [1053, 867]. **Suboptimality** [1077]. **Subrelations** [343]. **Subsampling** [881]. **Subsequence** [1005, 791]. **subsets** [598]. **subspace** [654, 816]. **Succinct** [1016]. **Sufficient** [364]. **suffix** [770]. **Sum** [882]. **Summaries** [1057, 859]. **summarizability** [614]. **Summarizing** [635]. **Summary** [431, 346, 863]. **Summary-Table-by-Example** [346]. **Superimposed** [308]. **Support** [117, 949, 20, 309, 133, 382, 210, 409, 506, 538, 587]. **Supporting** [1079, 492, 746, 397, 500, 844]. **Surface** [1061]. **Survey** [932, 1003, 1002, 761, 802, 793]. **Swapping** [206]. **Symmetric** [207]. **Symposium** [1091]. **Synchronization** [91, 932, 55]. **Synonyms** [912]. **Synopses** [621, 573, 616, 707, 646, 723, 735]. **syntax** [494]. **Synthesis** [446, 430, 1023]. **Synthesizing** [17]. **System** [361, 139, 400, 94, 93, 140, 40, 31, 208, 127, 20, 14, 57, 112, 338, 414, 205, 219, 449, 273, 342, 44, 276, 519, 274, 34, 52, 92, 382, 19, 957, 155, 102, 183, 297, 352, 134, 692, 792, 503, 487, 596, 721, 477, 518, 8, 117, 219, 681, 29]. **System/U** [219]. **Systems** [1091, 318, 258, 98, 91, 260, 244, 150, 225, 1006, 149, 191, 213, 227, 262, 271, 275, 448, 471, 1073, 447, 81, 41, 107, 953, 67, 199, 946, 445, 373, 423, 314, 52, 281, 55, 441, 263, 270, 236, 54, 1093, 302, 403, 872, 159, 1031, 360, 388, 165, 147, 1095, 743, 512, 556, 514, 726, 823, 746, 624, 850, 18, 594, 634, 480, 579, 751, 793, 2].

Table [1086, 346, 814]. **Tableaux** [216, 161]. **Tables** [431, 969, 737]. **Tail** [469]. **Tailored** [1037]. **tampering** [719]. **tasks** [680]. **Taxonomic** [404]. **Taxonomy** [435]. **Technical** [911, 204, 203]. **Technique** [152, 87, 367, 449, 265]. **Techniques** [452, 464, 132, 346, 228, 308, 501, 761, 802, 497, 666, 706]. **Technology** [290]. **Temporal** [530, 456, 949, 323, 411, 508, 500, 536, 534, 565, 481, 701, 294]. **Temporally** [282]. **Tensors** [1018]. **Term** [167]. **Terms** [77]. **Terrain** [1061]. **Testing** [86]. **Text** [365, 510, 673, 680, 708, 587, 505]. **text-centric** [680]. **text-source** [510]. **Their** [22, 216, 187, 15, 33, 836, 915, 583]. **Them** [1050]. **Theoretic** [359, 239, 839, 750, 1012]. **Theoretical** [1025]. **Theory** [195, 1042, 895, 529, 329, 641, 188, 863, 79, 767, 773, 504]. **Theseus** [88]. **thinning** [855]. **Third** [17, 128]. **Thrashing** [429]. **Threat** [68]. **Three** [163, 923, 9, 110]. **Three-Valued** [923]. **threshold** [682]. **Throughput** [829]. **Thwarting** [753]. **Tiered** [1073]. **Tight** [601]. **Tightened** [1058]. **Time** [408, 185, 975, 222, 954, 1001, 389, 420, 362, 959, 898, 121, 210, 399, 356, 549, 492, 1036, 791]. **Time-** [898, 121]. **Time-Constrained** [420]. **Time-decaying** [1001]. **Time-Series** [959, 791]. **Timely** [1070, 1044]. **Times** [1001]. **TinyDB** [596]. **TODS** [495, 110, 904, 931, 709, 768, 794, 739]. **token** [868]. **tolerance** [692]. **Tolerant** [927, 868]. **Tolerating** [422]. **Tool** [376, 1086]. **Tools** [439]. **Top** [548, 843, 896, 898, 800, 664, 760, 678, 580, 648, 702]. **Top-** [548, 843, 896, 898, 800, 760, 678, 580, 648, 702]. **top-k** [664]. **Topmost** [948]. **Topological** [623, 635]. **topology** [865]. **TPC** [535]. **TQUEL** [294]. **Traces** [410]. **Tracing** [525]. **Tracker** [68, 96]. **tracking** [599]. **Tractable** [1063]. **Tradeoffs** [393, 416]. **Traffic** [990]. **Trajectories** [947]. **Trajectory** [962, 1041, 961]. **Trans** [244, 403, 388]. **Transaction** [446, 237, 184, 275, 448, 248, 447, 276, 397, 445, 460, 339, 374, 384, 625]. **Transaction-Processing** [445]. **Transactional** [485, 278, 838, 546]. **Transactions** [408, 938, 277, 117, 345, 154, 2, 383, 430, 872, 159, 1076, 483, 478]. **Transducer** [906]. **transducers** [714].

Transformation [118, 125, 113]. **Transformational** [40]. **Transformations** [269, 439]. **Transition** [272]. **Transitive** [363, 428, 367, 610]. **Translation** [162, 327, 366, 377]. **Transparent** [753]. **Transposed** [90]. **Traversal** [428]. **Traversals** [125]. **Tree** [412, 941, 937, 144, 1084, 174, 95, 348, 943, 900, 251, 427, 16, 798, 600, 770, 761, 802, 602, 624, 781, 796, 819, 415, 369]. **tree-edit** [600]. **Tree-Structured** [348, 251]. **Trees** [984, 4, 942, 992, 250, 108, 107, 220, 749, 23, 846, 135, 820, 818, 662, 1025, 869, 142, 121]. **TriAL** [981]. **Triangle** [888, 1022]. **Trie** [215, 11, 83, 136, 329]. **Tries** [1049]. **Triggers** [644]. **Triplestores** [981]. **TuG** [723]. **tuning** [762, 613]. **Tuple** [950, 268, 1019]. **Tuple-Generating** [950]. **Tuples** [1004, 933]. **Twelfth** [1092]. **twigs** [629]. **Two** [358, 279, 904, 342, 429, 537, 635, 499]. **two-dimensional** [537]. **Two-Headed** [342]. **two-level** [499]. **Two-Phase** [279, 429]. **Type** [512, 465, 35, 837, 523]. **type-based** [837]. **Type-checking** [512]. **Typed** [249, 243]. **Types** [353, 274, 848]. **tyranny** [526].

U [219]. **Uncertain** [917, 786, 748, 674]. **Uncertainty** [1053, 584]. **Understanding** [1071, 553, 807]. **Undoable** [1052]. **UniAD** [957]. **Unified** [1005, 3, 348, 957, 688, 1048, 664]. **Unifying** [168]. **Unions** [1035, 1055]. **Unique** [1060]. **Units** [286]. **Universal** [324, 160, 457, 137, 219, 176, 217, 431, 204, 203]. **Universal-Scheme** [431]. **Unknown** [979]. **Unknowns** [979]. **unnesting** [645]. **Unordered** [975]. **Until** [222]. **Update** [138, 324, 461, 162, 325, 383, 303, 533, 717, 852, 477]. **Updates** [903, 983, 340, 453, 897, 922, 952, 977, 1011, 1022, 351, 246, 642, 718, 611]. **Updating** [413, 340, 32, 993, 315]. **Upon** [932]. **upper** [601]. **USA** [1088]. **Use** [903, 410, 418, 306, 239, 970]. **useful** [540]. **User** [919, 69, 319, 1080, 509, 554, 613, 21]. **User-defined** [1080, 509, 554, 613]. **users** [506]. **Using** [1054, 31, 982, 456, 446, 345, 184, 877, 935, 1018, 173, 447, 828, 948, 341, 397, 986, 336, 382, 441, 1044, 778, 220, 1078, 837, 620, 1055, 290, 637, 316, 531, 600, 626, 161, 553, 1036, 632, 200, 807, 819, 611, 816]. **Utility** [986]. **utilizing** [764].

Vadalog [1047]. **valid** [492]. **valid-time** [492]. **Validated** [341]. **Validating** [860]. **Validation** [42, 590]. **Validity** [344]. **value** [1064, 835]. **Valued** [36, 923, 305, 89, 835, 218]. **Values** [933, 441, 42, 145, 651, 529]. **Variable** [329]. **Variable-Depth** [329]. **Variants** [231, 244]. **Vector** [295, 734]. **Verification** [1006, 339, 475, 735]. **Versioning** [382]. **Versions** [209]. **Versus** [353, 660, 505]. **vertex** [813]. **Vertical** [234, 915]. **Very** [1092, 1088, 1089, 1090, 969, 779]. **via** [797, 903, 820, 638, 852, 945, 996, 1039, 976]. **View** [1045, 3, 381, 351, 156, 589, 525, 542, 561, 161]. **ViewCache** [386]. **Views** [138, 982, 932, 162, 325, 825, 766, 319, 310, 811, 847, 642, 779, 637, 746, 303, 780, 644, 812, 819]. **violations** [665]. **Virtual** [31, 41, 19, 752]. **Virtue** [930]. **Visibility** [938]. **visual** [603]. **visualization** [855]. **VLDB** [1092]. **VLSI** [254]. **Voting** [357].

W3QL [503]. **W3QS** [503]. **Waiting** [407]. **Walk** [935]. **Walks** [996, 921]. **Wander** [996]. **Warehouse** [944]. **Warehouses** [903]. **warehousing** [525]. **Watermarking** [1067, 777]. **Wavelet** [616, 573]. **wavelets** [669]. **Weak** [413]. **Weaker** [918]. **Web** [989, 567, 582, 630, 503, 858, 580, 808, 587, 681, 1076]. **Web-accessible** [580]. **Weight** [402]. **Well** [984]. **Well-Designed** [984]. **WHAM** [829]. **where** [378]. **Who**

[1050, 753]. **Wide** [582, 636, 503]. **Window** [898, 1031, 724]. **windows** [653, 806]. **without** [744, 869, 178]. **workflow** [811, 514, 780]. **Workload** [706, 913]. **Workload-aware** [706]. **Workload-Driven** [913]. **Workloads** [924, 535, 752]. **Workshop** [275]. **World** [875, 1053, 788, 582, 503]. **World-Wide** [503]. **Worlds** [972, 904]. **Worst** [1078, 432, 945, 1036, 827, 750]. **Worst-Case** [432, 827, 1078, 1036, 750]. **Write** [397]. **Write-Ahead** [397].

XDB [996]. **XLynx** [856]. **XML** [627, 743, 799, 577, 889, 590, 837, 847, 603, 642, 779, 738, 848, 569, 714, 693, 555, 839, 600, 718, 591, 777, 626, 730, 860, 689, 764, 755, 640, 966, 645, 593, 646, 629, 778, 856, 583, 581]. **XPath** [774, 833, 604, 574, 617, 607]. **XQBE** [603]. **XQ}uery** [603, 745, 651, 856]. **XSD** [889]. **XSKETCH** [646]. **XSQ** [607].

years [110].

References

Yao:1977:ABA

[1] S. B. Yao. Approximating block accesses in database organization. *Communications of the ACM*, 20(4):260–261, April 1977. CODEN CACMA2. ISSN 0001-0782 (print), 1557-7317 (electronic). Also published in [25].

Hsiao:1976:ATD

[2] David K. Hsiao. ACM Transactions on Database Systems: aim and scope. *ACM Transactions on Database Systems*, 1(1):1–2, 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1976-1-1/p1-hsiao/p1-hsiao.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-1/p1-hsiao/`.

Chen:1976:ERM

[3] Peter Pin-Shan S. Chen. The entity-relationship model: Toward a unified view of data. *ACM Transactions on Database Systems*, 1(1):9–36, March 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1976-1-1/p9-chen/p9-chen.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-1/p9-chen/`. Reprinted in [1093].

Bayer:1976:EST

[4] R. Bayer and J. K. Metzger. On the encipherment of search trees and random access files. *ACM Transactions on Database Systems*, 1(1):37–52, March 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1976-1-1/p37-bayer/p37-bayer.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-1/p37-bayer/`. Also published in [1088, p. 508–510].

Lin:1976:DRA

[5] Chyuan Shiun Lin, Diane C. P. Smith, and John Miles Smith. The design of a rotating associative memory for relational database applications. *ACM Transactions on Database Systems*, 1 (1):53–65, 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1976-1-1/p53-lin/p53-lin.pdf; http:`

//www.acm.org/pubs/citations/journals/tods/1976-1-1/p53-lin/.

Mahmoud:1976:OAR

[6] Samy Mahmoud and J. S. Riordon. Optimal allocation of resources in distributed information networks. *ACM Transactions on Database Systems*, 1(1):66–78, March 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-1/p66-mahmoud/p66-mahmoud.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-1/p66-mahmoud/.

Stemple:1976:DMF

[7] David W. Stemple. A database management facility for automatic generation of database managers. *ACM Transactions on Database Systems*, 1(1):79–94, March 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-1/p79-stemple/p79-stemple.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-1/p79-stemple/. Also published in [1088, p. 252].

Astrahan:1976:SRR

[8] M. M. Astrahan, M. W. Blasgen, D. D. Chamberlin, K. P. Eswaran, J. N. Gray, P. P. Griffiths, W. F. King, R. A. Lorie, P. R. McJones, J. W. Mehl, G. R. Putzolu, I. L. Traiger, B. W. Wade, and V. Watson. System R: a relational approach to database management. *ACM Transactions on Database Systems*, 1(2):97–137, June 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-2/p97-astrahan/p97-astrahan.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-2/p97-astrahan/. Also published in/as: IBM, San Jose, Research Report. No. RJ-1738, Feb. 1976. Reprinted in [1093].

Navathe:1976:RLD

[9] Shamkant B. Navathe and James P. Fry. Restructuring for large data bases: Three levels of abstraction. *ACM Transactions on Database Systems*, 1 (2):138–158, March 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-2/p138-navathe/p138-navathe.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-2/p138-navathe/. Also published in [1088, p. 174].

Yao:1976:DDR

[10] S. B. Yao, K. S. Das, and T. J. Teorey. A dynamic database reorganization algorithm. *ACM Transactions on Database Systems*, 1(2):159–174, June 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-2/p159-yao/p159-yao.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-2/p159-yao/. Also published in/as: Purdue Un., TR-168, Nov. 1975.

Burkhard:1976:HTA

[11] Walter A. Burkhard. Hashing and trie algorithms for partial-match retrieval. *ACM Transactions on Database Systems*, 1(2):175–187, June 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1976-1-2/p175-burkhard/p175-burkhard.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-2/p175-burkhard/`. Also published in/as: UCSD, Appl. Physics and Inf. Sc, CS TR.2, Jun. 1975.

Stonebraker:1976:DII

[12] Michael Stonebraker, Eugene Wong, Peter Kreps, and Gerald Held. The design and implementation of INGRES. *ACM Transactions on Database Systems*, 1(3):189–222, September 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1976-1-3/p189-stonebraker/p189-stonebraker.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-3/p189-stonebraker/`. Reprinted in [1093]. Also published in/as: UCB, Elec. Res. Lab, Memo No. ERL-M577, Jan. 1976.

Wong:1976:DSQ

[13] Eugene Wong and Karel Youssefi. Decomposition — A strategy for query processing. *ACM Transactions on Database Systems*, 1(3):223–241, September 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1976-1-3/p223-wong/p223-wong.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-3/p223-wong/`. Also published in/as: UCB, Elec. Res. Lab, Memo No. ERL-574, Jan. 1976.

Griffiths:1976:AMR

[14] Patricia P. Griffiths and Bradford W. Wade. An authorization mechanism for a relational database system. *ACM Transactions on Database Systems*, 1(3):242–255, September 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1976-1-3/p242-griffiths/p242-griffiths.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-3/p242-griffiths/`.

Severance:1976:DFT

[15] Dennis G. Severance and Guy M. Lohman. Differential files: Their application to the maintenance of large databases. *ACM Transactions on Database Systems*, 1(3):256–267, September 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1976-1-3/p256-severance/p256-severance.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-3/p256-severance/`.

Shneiderman:1976:BSS

[16] Ben Shneiderman and Victor Goodman. Batched searching of sequential and tree structured files. *ACM Transactions on Database Systems*, 1 (3):268–275, September 1976. CODEN ATDSD3. ISSN 0362-5915 (print),

1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-3/p268-shneiderman/p268-shneiderman.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-3/p268-shneiderman/. See comments in [251]. Also published in/as: Indiana Un., CSD Tech. Ref. 0132.

Bernstein:1976:STN

[17] Philip A. Bernstein. Synthesizing third normal form relations from functional dependencies. *ACM Transactions on Database Systems*, 1(4):277–298, December 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-4/p277-bernstein/p277-bernstein.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-4/p277-bernstein/.

Liu:1976:APS

[18] Jane W. S. Liu. Algorithms for parsing search queries in systems with inverted file organization. *ACM Transactions on Database Systems*, 1(4):299–316, 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-4/p299-liu/p299-liu.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-4/p299-liu/.

Sherman:1976:PDM

[19] Stephen W. Sherman and Richard S. Brice. Performance of a database manager in a virtual memory system. *ACM Transactions on Database Systems*, 1(4):317–343, December 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-4/p317-sherman/p317-sherman.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-4/p317-sherman/.

Donovan:1976:DSA

[20] John J. Donovan. Database system approach to management decision support. *ACM Transactions on Database Systems*, 1(4):344–369, December 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-4/p344-donovan/p344-donovan.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-4/p344-donovan/.

McGee:1976:UCD

[21] William C. McGee. On user criteria for data model evaluation. *ACM Transactions on Database Systems*, 1(4):370–387, 1976. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1976-1-4/p370-mcgee/p370-mcgee.pdf; http://www.acm.org/pubs/citations/journals/tods/1976-1-4/p370-mcgee/.

Kam:1977:MSD

[22] John B. Kam and Jeffrey D. Ullman. A model of statistical databases and their security. *ACM Transactions on Database Systems*, 2(1):1–10, March 1977. CODEN ATDSD3.

ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-1/p1-kam/p1-kam.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-1/p1-kam/.

Bayer:1977:PBT

[23] Rudolf Bayer and Karl Unterauer. Prefix B-trees. *ACM Transactions on Database Systems*, 2(1):11–26, March 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-1/p11-bayer/p11-bayer.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-1/p11-bayer/. Also published in/as: IBM Yorktwon, Technical Report RJ1796, Jun. 1976.

Schkolnick:1977:CAH

[24] Mario Schkolnick. A clustering algorithm for hierarchical structures. *ACM Transactions on Database Systems*, 2(1):27–44, May 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yao:1977:ABM

[25] S. B. Yao. An attribute based model for database access cost analysis. *ACM Transactions on Database Systems*, 2(1):45–67, March 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-1/p45-yao/p45-yao.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-1/p45-yao/. Also published in [1].

Anderson:1977:MCS

[26] Henry D. Anderson and P. Bruce Berra. Minimum cost selection of secondary indexes for formatted files. *ACM Transactions on Database Systems*, 2(1):68–90, March 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-1/p68-anderson/p68-anderson.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-1/p68-anderson/.

Lorie:1977:PIL

[27] Raymond A. Lorie. Physical integrity in a large segmented database. *ACM Transactions on Database Systems*, 2 (1):91–104, March 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-1/p91-lorie/p91-lorie.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-1/p91-lorie/.

Smith:1977:DAA

[28] John Miles Smith and Diane C. P. Smith. Database abstractions: Aggregation and generalization. *ACM Transactions on Database Systems*, 2(2):105–133, June 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-2/p105-smith/p105-smith.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-2/p105-smith/.

Shu:1977:EDE

[29] N. C. Shu, B. C. Housel, R. W. Taylor, S. P. Ghosh, and V. Y. Lum. EXPRESS: a data EXtraction, Processing, and Restructuring System. *ACM Transactions on Database Systems*, 2(2):134–174, June 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1977-2-2/p134-shu/p134-shu.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-2/p134-shu/`.

Ozkarahan:1977:PER

[30] E. A. Ozkarahan, S. A. Schuster, and K. C. Sevcik. Performance evaluation of a relational associative processor. *ACM Transactions on Database Systems*, 2(2):175–195, June 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1977-2-2/p175-ozkarahan/p175-ozkarahan.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-2/p175-ozkarahan/`.

Brice:1977:EPD

[31] Richard S. Brice and Stephen W. Sherman. An extension on the performance of a database manager in a virtual memory system using partially locked virtual buffers. *ACM Transactions on Database Systems*, 2(2):196–207, June 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1977-2-2/p196-brice/p196-brice.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-2/p196-brice/`.

Lohman:1977:OPB

[32] Guy M. Lohman and John A. Muckstadt. Optimal policy for batch operations: Backup, checkpointing, reorganization, and updating. *ACM Transactions on Database Systems*, 2(3):209–222, September 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1977-2-3/p209-lohman/p209-lohman.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-3/p209-lohman/`.

Wong:1977:IHT

[33] Kai C. Wong and Murray Edelberg. Interval hierarchies and their application to predicate files. *ACM Transactions on Database Systems*, 2(3):223–232, September 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1977-2-3/p223-wong/p223-wong.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-3/p223-wong/`.

Ries:1977:ELG

[34] Daniel R. Ries and Michael Stonebraker. Effects of locking granularity in a database management system. *ACM Transactions on Database Systems*, 2(3):233–246, September 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.`

org/pubs/articles/journals/tods/1977-2-3/p233-ries/p233-ries.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-3/p233-ries/.

Schmidt:1977:SHL

[35] Joachim W. Schmidt. Some high level language constructs for data of type relation. *ACM Transactions on Database Systems*, 2(3):247–261, September 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-3/p247-schmidt/p247-schmidt.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-3/p247-schmidt/.

Fagin:1977:MVD

[36] Ronald Fagin. Multi-valued dependencies and a new normal form for relational databases. *ACM Transactions on Database Systems*, 2(3):262–278, September 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-3/p262-fagin/p262-fagin.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-3/p262-fagin/.

March:1977:DER

[37] Salvatore T. March and Dennis G. Severance. The determination of efficient record segmentations and blocking factors for shared data files. *ACM Transactions on Database Systems*, 2(3):279–296, September 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-3/p279-march/p279-march.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-3/p279-march/.

Ozkarahan:1977:AAF

[38] E. A. Ozkarahan and K. C. Sevcik. Analysis of architectural features for enhancing the performance of a database machine. *ACM Transactions on Database Systems*, 2(4):297–316, December 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-4/p297-ozkarahan/p297-ozkarahan.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-4/p297-ozkarahan/.

Rissanen:1977:ICR

[39] Jorma Rissanen. Independent components of relations. *ACM Transactions on Database Systems*, 2(4):317–325, December 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-4/p317-rissanen/p317-rissanen.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-4/p317-rissanen/.

Bonczek:1977:TGB

[40] Robert H. Bonczek, James I. Cash, and Andrew B. Whinston. A transformational grammar-based query processor for access control in a planning system. *ACM Transactions on Database Systems*, 2(4):326–338, December 1977. CODEN ATDSD3.

ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-4/p326-bonczek/p326-bonczek.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-4/p326-bonczek/.

Lang:1977:DBP

[41] Tomás Lang, Christopher Wood, and Eduardo B. Fernández. Database buffer paging in virtual storage systems. *ACM Transactions on Database Systems*, 2(4):339–351, December 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-4/p339-lang/p339-lang.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-4/p339-lang/.

Thomas:1977:VAP

[42] D. A. Thomas, B. Pagurek, and R. J. Buhr. Validation algorithms for pointer values in DBTG databases. *ACM Transactions on Database Systems*, 2(4):352–369, December 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-4/p352-thomas/p352-thomas.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-4/p352-thomas/.

Claybrook:1977:FDM

[43] Billy G. Claybrook. A facility for defining and manipulating generalized data structures. *ACM Transactions on Database Systems*, 2(4):370–406, December 1977. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1977-2-4/p370-claybrook/p370-claybrook.pdf; http://www.acm.org/pubs/citations/journals/tods/1977-2-4/p370-claybrook/.

Minker:1978:SSS

[44] Jack Minker. Search strategy and selection function for an inferential relational system. *ACM Transactions on Database Systems*, 3(1):1–31, March 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-1/p1-minker/p1-minker.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-1/p1-minker/.

Tuel:1978:ORP

[45] William G. Tuel, Jr. Optimum reorganization points for linearly growing files. *ACM Transactions on Database Systems*, 3(1):32–40, March 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-1/p32-tuel/p32-tuel.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-1/p32-tuel/.

Yu:1978:END

[46] C. T. Yu, W. S. Luk, and M. K. Siu. On the estimation of the number of desired records with respect to a given query. *ACM Transactions on Database Systems*, 3(1):41–56, March 1978. CODEN ATDSD3.

ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-1/p41-yu/p41-yu.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-1/p41-yu/.

Su:1978:CCS

[47] Stanley Y. W. Su and Ahmed Emam. CASDAL: *CAS*SM's *DA*ta *L*anguage. *ACM Transactions on Database Systems*, 3(1):57–91, March 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1978-3-1/p57-su/.

Chin:1978:SSD

[48] Francis Y. Chin. Security in statistical databases for queries with small counts. *ACM Transactions on Database Systems*, 3(1):92–104, March 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-1/p92-chin/p92-chin.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-1/p92-chin/.

Hendrix:1978:DNL

[49] Gary G. Hendrix, Earl D. Sacerdoti, Daniel Sagalowicz, and Jonathan Slocum. Developing a natural language interface to complex data. *ACM Transactions on Database Systems*, 3(2):105–147, June 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-2/p105-hendrix/p105-hendrix.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-2/p105-hendrix/.

Langdon:1978:NAP

[50] Glen G. Langdon, Jr. A note on associative processors for data management. *ACM Transactions on Database Systems*, 3(2):148–158, June 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-2/p148-langdon/p148-langdon.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-2/p148-langdon/.

Kluge:1978:DFM

[51] Werner E. Kluge. Data file management in shift-register memories. *ACM Transactions on Database Systems*, 3 (2):159–177, June 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-2/p159-kluge/p159-kluge.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-2/p159-kluge/.

Rosenkrantz:1978:SLC

[52] David J. Rosenkrantz, Richard E. Stearns, and Philip M. Lewis, II. System level concurrency control for distributed database systems. *ACM Transactions on Database Systems*, 3 (2):178–198, June 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-2/p178-rosenkrantz/p178-rosenkrantz.pdf; http://

www.acm.org/pubs/citations/journals/tods/1978-3-2/p178-rosenkrantz/.

Delobel:1978:NHD

[53] Claude Delobel. Normalization and hierarchical dependencies in the relational data model. *ACM Transactions on Database Systems*, 3(3):201–222, September 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-3/p201-delobel/p201-delobel.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-3/p201-delobel/.

Smith:1978:SPD

[54] Alan Jay Smith. Sequentiality and prefetching in database systems. *ACM Transactions on Database Systems*, 3(3):223–247, September 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-3/p223-smith/p223-smith.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-3/p223-smith/.

Schlageter:1978:PSD

[55] Gunter Schlageter. Process synchronization in database systems. *ACM Transactions on Database Systems*, 3 (3):248–271, September 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-3/p248-schlageter/p248-schlageter.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-3/p248-schlageter/. See errata report in [91].

Hollaar:1978:SMP

[56] Lee A. Hollaar. Specialized merge processor networks for combining sorted lists. *ACM Transactions on Database Systems*, 3(3):272–284, September 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-3/p272-hollaar/p272-hollaar.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-3/p272-hollaar/.

Haerder:1978:IGA

[57] Theo Haerder. Implementing a generalized access path structure for a relational database system. *ACM Transactions on Database Systems*, 3(3): 285–298, September 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-3/p285-haerder/p285-haerder.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-3/p285-haerder/.

Yu:1978:PP

[58] C. T. Yu, M. K. Siu, and K. Lam. On a partitioning problem. *ACM Transactions on Database Systems*, 3(3): 299–309, September 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-3/p299-yu/p299-yu.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-3/p299-yu/.

Fagin:1978:AM

[59] Ronald Fagin. On an authorization mechanism. *ACM Transactions on Database Systems*, 3(3):310–319, September 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-3/p310-fagin/p310-fagin.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-3/p310-fagin/.

Salton:1978:GSC

[60] G. Salton and A. Wong. Generation and search of clustered files. *ACM Transactions on Database Systems*, 3(4):321–346, December 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-4/p321-salton/p321-salton.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-4/p321-salton/.

Banerjee:1978:CCD

[61] Jayanta Banerjee, Richard I. Baum, and David K. Hsiao. Concepts and capabilities of a database computer. *ACM Transactions on Database Systems*, 3(4):347–384, December 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-4/p347-banerjee/p347-banerjee.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-4/p347-banerjee/.

Bradley:1978:EOC

[62] J. Bradley. An extended owner-coupled set data model and predicate calculus for database management. *ACM Transactions on Database Systems*, 3(4):385–416, December 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-4/p385-bradley/p385-bradley.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-4/p385-bradley/.

Shneiderman:1978:IHF

[63] Ben Shneiderman. Improving the human factors aspect of database interactions. *ACM Transactions on Database Systems*, 3(4):417–439, December 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-4/p417-shneiderman/p417-shneiderman.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-4/p417-shneiderman/.

Comer:1978:DOI

[64] Douglas Comer. The difficulty of optimum index selection. *ACM Transactions on Database Systems*, 3(4):440–445, December 1978. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1978-3-4/p440-comer/p440-comer.pdf; http://www.acm.org/pubs/citations/journals/tods/1978-3-4/p440-comer/.

Babb:1979:IRD

[65] E. Babb. Implementing a relational database by means of specialized hardware. *ACM Transactions on Database Systems*, 4(1):1–29, March 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-1/p1-babb/p1-babb.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-1/p1-babb/.

Beeri:1979:CPR

[66] Catriel Beeri and Philip A. Bernstein. Computational problems related to the design of normal form relational schemas. *ACM Transactions on Database Systems*, 4(1):30–59, March 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-1/p30-beeri/p30-beeri.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-1/p30-beeri/. Also published in/as: errata in ACM Transactions on Database Systems, Vol. 4 No. 3, Sep. 1979, pp. 396.

Lockemann:1979:DAD

[67] Peter C. Lockemann, Heinrich C. Mayr, Wolfgang H. Weil, and Wolfgang H. Wohlleber. Data abstractions for database systems. *ACM Transactions on Database Systems*, 4(1):60–75, March 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-1/p60-lockemann/p60-lockemann.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-1/p60-lockemann/.

Denning:1979:TTS

[68] Dorothy E. Denning, Peter J. Denning, and Mayer D. Schwartz. The tracker: a threat to statistical database security. *ACM Transactions on Database Systems*, 4(1):76–96, March 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-1/p76-denning/p76-denning.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-1/p76-denning/.

Dobkin:1979:SDP

[69] David Dobkin, Anita K. Jones, and Richard J. Lipton. Secure databases: Protection against user influence. *ACM Transactions on Database Systems*, 4(1):97–106, March 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-1/p97-dobkin/p97-dobkin.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-1/p97-dobkin/.

Kent:1979:LRB

[70] William Kent. Limitations of record-based information models. *ACM Transactions on Database Systems*, 4 (1):107–131, March 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-1/p107-kent/p107-kent.pdf; http://www.acm.org/pubs/

citations/journals/tods/1979-4-1/p107-kent/.

Yao:1979:OQE

[71] S. Bing Yao. Optimization of query evaluation algorithms. *ACM Transactions on Database Systems*, 4(2):133–155, June 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-2/p133-yao/p133-yao.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-2/p133-yao/.

Schwartz:1979:LQS

[72] M. D. Schwartz, D. E. Denning, and P. J. Denning. Linear queries in statistical databases. *ACM Transactions on Database Systems*, 4(2):156–167, June 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-2/p156-schwartz/p156-schwartz.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-2/p156-schwartz/.

Aho:1979:OPM

[73] Alfred V. Aho and Jeffrey D. Ullman. Optimal partial-match retrieval when fields are independently specified. *ACM Transactions on Database Systems*, 4(2):168–179, June 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-2/p168-aho/p168-aho.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-2/p168-aho/.

Thomas:1979:MCA

[74] Robert H. Thomas. A majority consensus approach to concurrency control for multiple copy databases. *ACM Transactions on Database Systems*, 4(2):180–209, June 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-2/p180-thomas/p180-thomas.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-2/p180-thomas/.

Ries:1979:LGR

[75] Daniel R. Ries and Michael R. Stonebraker. Locking granularity revisited. *ACM Transactions on Database Systems*, 4(2):210–227, June 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-2/p210-ries/p210-ries.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-2/p210-ries/.

Burkhard:1979:PMH

[76] Walter A. Burkhard. Partial-match hash coding: Benefits of redundancy. *ACM Transactions on Database Systems*, 4(2):228–239, June 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1979-4-2/p228-burkhard/p228-burkhard.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-2/p228-burkhard/.

Raghavan:1979:EDR

[77] Vijay V. Raghavan and C. T. Yu. Experiments on the determination of the relationships between terms. *ACM Transactions on Database Systems*, 4(2):240–260, June 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-2/p240-raghavan/p240-raghavan.pdf`; `http://www.acm.org/pubs/citations/journals/tods/1979-4-2/p240-raghavan/`.

Lipski:1979:SIC

[78] Witold Lipski, Jr. On semantic issues connected with incomplete information databases. *ACM Transactions on Database Systems*, 4(3):262–296, September 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-3/p262-lipski/p262-lipski.pdf`; `http://www.acm.org/pubs/citations/journals/tods/1979-4-3/p262-lipski/`.

Aho:1979:TJR

[79] A. V. Aho, C. Beeri, and J. D. Ullman. The theory of joins in relational databases. *ACM Transactions on Database Systems*, 4(3):297–314, September 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-3/p297-aho/p297-aho.pdf`; `http://www.acm.org/pubs/citations/journals/tods/1979-4-3/p297-aho/`. See corrigendum [188].

Fagin:1979:EHF

[80] Ronald Fagin, Jürg Nievergelt, Nicholas Pippenger, and H. Raymond Strong. Extendible hashing — a fast access method for dynamic files. *ACM Transactions on Database Systems*, 4(3): 315–344, September 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-3/p315-fagin/p315-fagin.pdf`; `http://www.acm.org/pubs/citations/journals/tods/1979-4-3/p315-fagin/`. Also published in/as: IBM Research Report RJ2305, Jul. 1978. See [1087].

Lam:1979:PSH

[81] Chat Yu Lam and Stuart E. Madnick. Properties of storage hierarchy systems with multiple page sizes and redundant data. *ACM Transactions on Database Systems*, 4(3):345–367, September 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/1979-4-3/p345-lam/`.

Buneman:1979:EMR

[82] O. Peter Buneman and Eric K. Clemons. Efficiently monitoring relational databases. *ACM Transactions on Database Systems*, 4(3):368–382, September 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-3/p368-buneman/p368-buneman.pdf`; `http://www.acm.org/pubs/citations/journals/tods/1979-4-3/p368-buneman/`. Also published in/as: Working paper, 76-10-08,

Dep. Decision Sciences, The Wharton School, Un. Penn, PA, Jun. 1977.

Comer:1979:HTI

[83] Douglas Comer. Heuristics for trie index minimization. *ACM Transactions on Database Systems*, 4(3):383–395, September 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-3/p383-comer/p383-comer.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-3/p383-comer/`.

Codd:1979:EDR

[84] E. F. Codd. Extending the database relational model to capture more meaning. *ACM Transactions on Database Systems*, 4(4):397–434, December 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-4/p397-codd/p397-codd.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-4/p397-codd/`. Reprinted in [1093, pp. 457–475].

Aho:1979:EOC

[85] A. V. Aho, Y. Sagiv, and J. D. Ullman. Efficient optimization of a class of relational expressions. *ACM Transactions on Database Systems*, 4(4):435–454, December 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-4/p435-aho/p435-aho.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-4/p435-aho/`.

Maier:1979:TID

[86] David Maier, Alberto O. Mendelzon, and Yehoshua Sagiv. Testing implications of data dependencies. *ACM Transactions on Database Systems*, 4(4):455–469, December 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-4/p455-maier/p455-maier.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-4/p455-maier/`.

Housel:1979:PTI

[87] Barron C. Housel. Pipelining: a technique for implementing data restructurers. *ACM Transactions on Database Systems*, 4(4):470–492, December 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-4/p470-housel/p470-housel.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-4/p470-housel/`.

Shopiro:1979:TPL

[88] Jonathan E. Shopiro. Theseus — A programming language for relational databases. *ACM Transactions on Database Systems*, 4(4):493–517, December 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-4/p493-shopiro/p493-shopiro.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-4/p493-shopiro/`.

Yamamoto:1979:DBM

[89] Sumiyasu Yamamoto, Shinsei Tazawa, Kazuhiko Ushio, and Hideto Ikeda. Design of a balanced multiple-valued file-organization scheme with the least redundancy. *ACM Transactions on Database Systems*, 4(4):518–530, December 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-4/p518-yamamoto/p518-yamamoto.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-4/p518-yamamoto/`.

Batory:1979:STF

[90] Don S. Batory. On searching transposed files. *ACM Transactions on Database Systems*, 4(4):531–544, December 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-4/p531-batory/p531-batory.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-4/p531-batory/`.

Bernstein:1979:CPS

[91] Philip A. Bernstein, Marco A. Casanova, and Nathan Goodman. Comments on "Process Synchronization in Database Systems". *ACM Transactions on Database Systems*, 4 (4):545–546, December 1979. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1979-4-4/p545-bernstein/p545-bernstein.pdf; http://www.acm.org/pubs/citations/journals/tods/1979-4-4/p545-bernstein/`. See [55].

Rothnie:1980:ISD

[92] James B. Rothnie, Jr., Philip A. Bernstein, S. Fox, N. Goodman, M. Hammer, T. A. Landers, C. Reeve, David W. Shipman, and E. Wong. Introduction to a system for distributed databases (SDD-1). *ACM Transactions on Database Systems*, 5(1):1–17, March 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1980-5-1/p1-rothnie/p1-rothnie.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-1/p1-rothnie/`.

Bernstein:1980:CCS

[93] Philip A. Bernstein, David W. Shipman, and James B. Rothnie, Jr. Concurrency control in a system for distributed databases (SDD-1). *ACM Transactions on Database Systems*, 5(1):18–51, March 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1980-5-1/p18-bernstein/p18-bernstein.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-1/p18-bernstein/`.

Bernstein:1980:CCC

[94] Philip A. Bernstein and David W. Shipman. Correctness of concurrency control mechanisms in a system for distributed databases (SDD-1). *ACM Transactions on Database Systems*, 5(1):52–68, March 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.`

org/pubs/articles/journals/tods/1980-5-1/p52-bernstein/p52-bernstein.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-1/p52-bernstein/.

Gopalakrishna:1980:PEA

[95] V. Gopalakrishna and C. E. Veni Madhavan. Performance evaluation of attribute-based tree organization. *ACM Transactions on Database Systems*, 5(1):69–87, March 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-1/p69-gopalakrishna/p69-gopalakrishna.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-1/p69-gopalakrishna/.

Denning:1980:FPF

[96] Dorothy E. Denning and Jan Schlörer. Fast procedure for finding a tracker in a statistical database. *ACM Transactions on Database Systems*, 5(1):88–102, March 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-1/p88-denning/p88-denning.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-1/p88-denning/.

Menasce:1980:LPR

[97] Daniel A. Menascé, Gerald J. Popek, and Richard R. Muntz. A locking protocol for resource coordination in distributed databases. *ACM Transactions on Database Systems*, 5(2):103–138, June 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-2/p103-menasce/p103-menasce.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-2/p103-menasce/.

Bayer:1980:PRD

[98] R. Bayer, H. Heller, and A. Reiser. Parallelism and recovery in database systems. *ACM Transactions on Database Systems*, 5(2):139–156, June 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-2/p139-bayer/p139-bayer.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-2/p139-bayer/.

Navathe:1980:SAD

[99] Shamkant B. Navathe. Schema analysis for database restructuring. *ACM Transactions on Database Systems*, 5 (2):157–184, June 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-2/p157-navathe/p157-navathe.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-2/p157-navathe/. Also published in/as: Proceedings of the Third Conference on Very Large Databases, Morgan Kaufman pubs. (Los Altos CA), 1977.

Mylopoulos:1980:LFD

[100] John Mylopoulos, Philip A. Bernstein, and Harry K. T. Wong. A language facility for designing database-

intensive applications. *ACM Transactions on Database Systems*, 5(2):185–207, June 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-2/p185-mylopoulos/p185-mylopoulos.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-2/p185-mylopoulos/.

Lozinskii:1980:CRR

[101] Eliezer L. Lozinskii. Construction of relations in relational databases. *ACM Transactions on Database Systems*, 5 (2):208–224, June 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-2/p208-lozinskii/p208-lozinskii.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-2/p208-lozinskii/.

Stonebraker:1980:RDS

[102] Michael Stonebraker. Retrospection on a database system. *ACM Transactions on Database Systems*, 5(2):225–240, June 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-2/p225-stonebraker/p225-stonebraker.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-2/p225-stonebraker/. Reprinted in [1093].

Beeri:1980:MPF

[103] Catriel Beeri. On the membership problem for functional and multivalued dependencies in relational databases. *ACM Transactions on Database Systems*, 5(3):241–259, September 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-3/p241-beeri/p241-beeri.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-3/p241-beeri/.

Klug:1980:CCR

[104] A. Klug. Calculating constraints on relational expressions. *ACM Transactions on Database Systems*, 5(3): 260–290, September 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-3/p260-klug/p260-klug.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-3/p260-klug/.

Denning:1980:SSD

[105] Dorothy E. Denning. Secure statistical databases with random sample queries. *ACM Transactions on Database Systems*, 5(3):291–315, September 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-3/p291-denning/p291-denning.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-3/p291-denning/.

Beck:1980:SMS

[106] Leland L. Beck. A security mechanism for statistical database. *ACM Transactions on Database Systems*, 5 (3):316–338, September 1980. CODEN ATDSD3. ISSN 0362-5915 (print),

1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-3/p316-beck/p316-beck.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-3/p316-beck/.

Lee:1980:QTF

[107] D. T. Lee and C. K. Wong. Quintary trees: a file structure for multidimensional database systems. *ACM Transactions on Database Systems*, 5(3):339–353, September 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-3/p339-lee/p339-lee.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-3/p339-lee/.

Kung:1980:CMB

[108] H. T. Kung and Philip L. Lehman. Concurrent manipulation of binary search trees. *ACM Transactions on Database Systems*, 5(3):354–382, September 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-3/p354-kung/p354-kung.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-3/p354-kung/.

Denning:1980:CLQ

[109] D. E. Denning. Corrigenda on linear queries in statistical databases. *ACM Transactions on Database Systems*, 5 (3):383, September 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hsiao:1980:TFT

[110] David K. Hsiao. TODS — the first three years (1976&ndash1978). *ACM Transactions on Database Systems*, 5 (4):385–403, December 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-4/p385-hsiao/p385-hsiao.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-4/p385-hsiao/.

Armstrong:1980:DFD

[111] W. W. Armstrong and C. Delobel. Decompositions and functional dependencies in relations. *ACM Transactions on Database Systems*, 5(4):404–430, December 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-4/p404-armstrong/p404-armstrong.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-4/p404-armstrong/.

Hammer:1980:RMS

[112] Michael Hammer and David Shipman. Reliability mechanisms for SDD-1: a system for distributed databases. *ACM Transactions on Database Systems*, 5(4):431–466, December 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1980-5-4/p431-hammer/p431-hammer.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-4/p431-hammer/.

Schloer:1980:SSD

[113] Jan Schlöer. Security of statistical databases: multidimensional transformation. *ACM Transactions on Database Systems*, 5(4):467–492, December 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/1980-5-4/p467-schler/`.

Herot:1980:SMD

[114] Christopher F. Herot. Spatial management of data. *ACM Transactions on Database Systems*, 5(4):493–513, December 1980. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1980-5-4/p493-herot/p493-herot.pdf; http://www.acm.org/pubs/citations/journals/tods/1980-5-4/p493-herot/`.

Zaniolo:1981:DRD

[115] Carlo Zaniolo and Michel A. Melkanoff. On the design of relational database schemata. *ACM Transactions on Database Systems*, 6(1):1–47, March 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1981-6-1/p1-zaniolo/p1-zaniolo.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-1/p1-zaniolo/`.

Lien:1981:HSR

[116] Y. Edmund Lien. Hierarchical schemata for relational databases. *ACM Transactions on Database Systems*, 6(1):48–69, March 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1981-6-1/p48-lien/p48-lien.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-1/p48-lien/`.

Chamberlin:1981:SRT

[117] D. D. Chamberlin, M. M. Astrahan, W. F. King, R. A. Lorie, J. W. Mehl, T. G. Price, M. Schkolnick, P. Griffiths Selinger, D. R. Slutz, B. W. Wade, and R. A. Yost. Support for repetitive transactions and ad hoc queries in System R. *ACM Transactions on Database Systems*, 6(1):70–94, March 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1981-6-1/p70-chamberlin/p70-chamberlin.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-1/p70-chamberlin/`. Also published in/as: IBM Research Report RJ2551(33151), May. 1979.

Schlorer:1981:SSD

[118] Jan Schlörer. Security of statistical databases: Multidimensional transformation. *ACM Transactions on Database Systems*, 6(1):95–112, March 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1981-6-1/p95-schlorer/p95-schlorer.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-1/p95-schlorer/`.

Chin:1981:SDD

[119] Francis Y. Chin and Gultekin Özsoyoğlu. Statistical database design. *ACM Transactions on Database Systems*, 6 (1):113–139, March 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-1/p113-chin/p113-chin.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-1/p113-chin/.

Shipman:1981:FDM

[120] David W. Shipman. The functional data model and the data language DAPLEX. *ACM Transactions on Database Systems*, 6(1):140–173, March 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-1/p140-shipman/p140-shipman.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-1/p140-shipman/. Reprinted in [1093].

Rosenberg:1981:TSO

[121] Arnold L. Rosenberg and Lawrence Snyder. Time- and space-optimality in B-Trees. *ACM Transactions on Database Systems*, 6(1):174–193, March 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-1/p174-rosenberg/p174-rosenberg.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-1/p174-rosenberg/.

Scholl:1981:NFO

[122] Michel Scholl. New file organizations based on dynamic hashing. *ACM Transactions on Database Systems*, 6 (1):194–211, March 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-1/p194-scholl/p194-scholl.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-1/p194-scholl/.

Kung:1981:OMC

[123] H. T. Kung and John T. Robinson. On optimistic methods for concurrency control. *ACM Transactions on Database Systems*, 6(2):213–226, June 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-2/p213-kung/p213-kung.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-2/p213-kung/. Reprinted in [1093].

Boral:1981:PAS

[124] Haran Boral and David J. DeWitt. Processor allocation strategies for multiprocessor database machines. *ACM Transactions on Database Systems*, 6(2):227–254, June 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-2/p227-boral/p227-boral.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-2/p227-boral/.

Su:1981:TDT

[125] Stanley Y. W. Su, Herman Lam, and Der Her Lo. Transformation of data traversals and operations in application programs to account for semantic changes of databases. *ACM Transactions on Database Systems*, 6(2):255–294, June 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-2/p255-su/p255-su.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-2/p255-su/.

Clemons:1981:DES

[126] Eric K. Clemons. Design of an external schema facility to define and process recursive structures. *ACM Transactions on Database Systems*, 6(2):295–311, June 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-2/p295-clemons/p295-clemons.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-2/p295-clemons/.

Davida:1981:DES

[127] George I. Davida, David L. Wells, and John B. Kam. A database encryption system with subkeys. *ACM Transactions on Database Systems*, 6(2):312–328, June 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-2/p312-davida/p312-davida.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-2/p312-davida/.

Ling:1981:ITN

[128] Tok Wang Ling, Frank W. Tompa, and Tiko Kameda. An improved third normal form for relational databases. *ACM Transactions on Database Systems*, 6(2):329–346, June 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-2/p329-ling/p329-ling.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-2/p329-ling/.

McLean:1981:CSC

[129] Gordon McLean, Jr. Comments on SDD-1 concurrency control mechanisms. *ACM Transactions on Database Systems*, 6(2):347–350, June 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-2/p347-mclean/p347-mclean.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-2/p347-mclean/.

Hammer:1981:DDS

[130] Michael Hammer and Dennis Mc Leod. Database description with SDM: a semantic database model. *ACM Transactions on Database Systems*, 6(3):351–386, September 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-3/p351-hammer/p351-hammer.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-3/p351-hammer/. Reprinted in [1093]. Also published in [1095].

Fagin:1981:NFR

[131] Ronald Fagin. A normal form for relational databases that is based on domains and keys. *ACM Transactions on Database Systems*, 6(3):387–415, September 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1981-6-3/p387-fagin/p387-fagin.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-3/p387-fagin/`.

Hong:1981:AHS

[132] Y. C. Hong and Stanley Y. W. Su. Associative hardware and software techniques for integrity control. *ACM Transactions on Database Systems*, 6(3):416–440, September 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1981-6-3/p416-hong/p416-hong.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-3/p416-hong/`.

March:1981:FMS

[133] Salvatore T. March, Dennis G. Severance, and Michael Wilens. Frame memory: a storage architecture to support rapid design and implementation of efficient databases. *ACM Transactions on Database Systems*, 6(3):441–463, September 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1981-6-3/p441-march/p441-march.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-3/p441-march/`.

vandeRiet:1981:HLP

[134] Reind P. van de Riet, Anthony I. Wasserman, Martin L. Kersten, and Wiebren de Jonge. High-level programming features for improving the efficiency of a relational database system. *ACM Transactions on Database Systems*, 6(3):464–485, September 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1981-6-3/p464-van_de_riet/p464-van_de_riet.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-3/p464-van_de_riet/`. Also published in/as: UCSF, Lab. of Med. Inf. Science, Tech. Rpt. 44, Feb. 1980.

Culik:1981:DMT

[135] K. Culik II, Th. Ottmann, and D. Wood. Dense multiway trees. *ACM Transactions on Database Systems*, 6 (3):486–512, September 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/1981-6-3/p486-culic/`.

Comer:1981:AHF

[136] Douglas Comer. Analysis of a heuristic for full trie minimization. *ACM Transactions on Database Systems*, 6(3):513–537, September 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1981-6-3/p513-comer/p513-comer.`

pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-3/p513-comer/.

Kent:1981:CAU

[137] W. Kent. Consequences of assuming a universal relation. *ACM Transactions on Database Systems*, 6(4):539–556, December 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-4/p539-kent/p539-kent.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-4/p539-kent/. See remark [203].

Bancilhon:1981:USR

[138] F. B. Bancilhon and N. Spyratos. Update semantics of relational views. *ACM Transactions on Database Systems*, 6(4):557–575, December 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-4/p557-bancilhon/p557-bancilhon.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-4/p557-bancilhon/. See comment [303].

Baroody:1981:OOA

[139] A. James Baroody, Jr. and David J. DeWitt. An object-oriented approach to database system implementation. *ACM Transactions on Database Systems*, 6(4):576–601, December 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-4/p576-baroody/p576-baroody.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-4/p576-baroody/.

Bernstein:1981:QPS

[140] Philip A. Bernstein, Nathan Goodman, Eugene Wong, Christopher L. Reeve, and James B. Rothnie, Jr. Query processing in a system for distributed databases (SDD-1). *ACM Transactions on Database Systems*, 6(4):602–625, December 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-4/p602-bernstein/p602-bernstein.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-4/p602-bernstein/.

Welty:1981:HFC

[141] Charles Welty and David W. Stemple. Human factors comparison of a procedural and a nonprocedural query language. *ACM Transactions on Database Systems*, 6(4):626–649, December 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-4/p626-welty/p626-welty.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-4/p626-welty/.

Lehman:1981:ELC

[142] Philip L. Lehman and S. Bing Yao. Efficient locking for concurrent operations on B-Trees. *ACM Transactions on Database Systems*, 6(4):650–670, December 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/

tods/1981-6-4/p650-lehman/p650-lehman.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-4/p650-lehman/.

Larson:1981:AIS

[143] Per-Åke Larson. Analysis of index-sequential files with overflow chaining. *ACM Transactions on Database Systems*, 6(4):671–680, December 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1981-6-4/p671-larson/p671-larson.pdf; http://www.acm.org/pubs/citations/journals/tods/1981-6-4/p671-larson/.

Comer:1981:EKD

[144] D. Comer. Extended K-d tree database organization: a dynamic multiattribute file corresponds to leaves in the tree. *ACM Transactions on Database Systems*, 6(3):??, September 1981. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zaniolo:1982:DRN

[145] C. Zaniolo. Database relations with null values. *ACM Transactions on Database Systems*, 1(1):??, March 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Katz:1982:DCD

[146] R. H. Katz and E. Wong. Decompiling CODASYL DML into relational queries. *ACM Transactions on Database Systems*, 7(1):1–23, March 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-1/p1-katz/p1-katz.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-1/p1-katz/.

Zaniolo:1982:FAD

[147] Carlo Zaniolo and Michel A. Melkanoff. A formal approach to the definition and the design of conceptual schemata for database systems. *ACM Transactions on Database Systems*, 7(1):24–59, March 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-1/p24-zaniolo/p24-zaniolo.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-1/p24-zaniolo/.

Batory:1982:OFD

[148] D. S. Batory. Optimal file designs and reorganization points. *ACM Transactions on Database Systems*, 7(1):60–81, March 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-1/p60-batory/p60-batory.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-1/p60-batory/. Also published in/as: University of Toronto, TR-CSRG-110, 1980.

Du:1982:DAC

[149] H. C. Du and J. S. Sobolewski. Disk allocation for Cartesian product files on multiple-disk systems. *ACM Transactions on Database Systems*, 7(1):82–101, March 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644

(electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-1/p82-du/p82-du.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-1/p82-du/.

Dahl:1982:DSD

[150] Verónica Dahl. On database systems development through logic. *ACM Transactions on Database Systems*, 7 (1):102–123, March 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-1/p102-dahl/p102-dahl.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-1/p102-dahl/.

Addis:1982:RBL

[151] T. R. Addis. A relation-based language interpreter for a content addressable file store. *ACM Transactions on Database Systems*, 7(2):125–163, June 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-2/p125-addis/p125-addis.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-2/p125-addis/.

Buneman:1982:ITD

[152] Peter Buneman, Robert E. Frankel, and Rishiyur Nikhil. An implementation technique for database query languages. *ACM Transactions on Database Systems*, 7(2):164–186, June 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-2/p164-buneman/p164-buneman.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-2/p164-buneman/.

Obermarck:1982:DDD

[153] Ron Obermarck. Distributed deadlock detection algorithm. *ACM Transactions on Database Systems*, 7(2):187–208, June 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-2/p187-obermarck/p187-obermarck.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-2/p187-obermarck/.

Garcia-Molina:1982:ROT

[154] Héctor García-Molina and Gio Wiederhold. Read-only transactions in a distributed database. *ACM Transactions on Database Systems*, 7(2):209–234, June 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-2/p209-garcia-molina/p209-garcia-molina.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-2/p209-garcia-molina/.

Shneiderman:1982:AAR

[155] Ben Shneiderman and Glenn Thomas. An architecture for automatic relational database system conversion. *ACM Transactions on Database Systems*, 7(2):235–257, June 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-2/p235-shneiderman/

p235-shneiderman.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-2/p235-shneiderman/.

Roussopoulos:1982:VIR

[156] Nicholas Roussopoulos. View indexing in relational databases. *ACM Transactions on Database Systems*, 7(2):258–290, June 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-2/p258-roussopoulos/p258-roussopoulos.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-2/p258-roussopoulos/.

Jacobs:1982:IRL

[157] Barry E. Jacobs, Alan R. Aronson, and Anthony C. Klug. On interpretations of relational languages and solutions to the implied constraint problem. *ACM Transactions on Database Systems*, 7(2):291–315, June 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-2/p291-jacobs/p291-jacobs.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-2/p291-jacobs/.

Chamberlin:1982:HFC

[158] Donald D. Chamberlin. On "human factors comparison of a procedural and a nonprocedural query language". *ACM Transactions on Database Systems*, 7(2):316–317, June 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Traiger:1982:TCD

[159] Irving L. Traiger, Jim Gray, Cesare A. Galtieri, and Bruce G. Lindsay. Transactions and consistency in distributed database systems. *ACM Transactions on Database Systems*, 7(3):323–342, September 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-3/p323-traiger/p323-traiger.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-3/p323-traiger/.

Fagin:1982:SUR

[160] Ronald Fagin, Alberto O. Mendelzon, and Jeffrey D. Ullman. A simplified universal relation assumption and its properties. *ACM Transactions on Database Systems*, 7(3):343–360, September 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-3/p343-fagin/p343-fagin.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-3/p343-fagin/.

Klug:1982:DVD

[161] Anthony Klug and Rod Price. Determining View dependencies using tableaux. *ACM Transactions on Database Systems*, 7(3):361–380, September 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-3/p361-klug/p361-klug.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-3/p361-klug/.

Dayal:1982:CTU

[162] Umeshwar Dayal and Philip A. Bernstein. On the correct translation of update operations on relational views. *ACM Transactions on Database Systems*, 7(3):381–416, September 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1982-7-3/p381-dayal/p381-dayal.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-3/p381-dayal/`.

Griffith:1982:TPR

[163] Robert L. Griffith. Three principles of representation for semantic networks. *ACM Transactions on Database Systems*, 7(3):417–442, September 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1982-7-3/p417-griffith/p417-griffith.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-3/p417-griffith/`.

Kim:1982:OSL

[164] Won Kim. On optimizing an SQL-like nested query. *ACM Transactions on Database Systems*, 7(3):443–469, September 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1982-7-3/p443-kim/p443-kim.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-3/p443-kim/`.

Wong:1982:SAI

[165] Eugene Wong. A statistical approach to incomplete information in database systems. *ACM Transactions on Database Systems*, 7(3):470–488, September 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1982-7-3/p470-wong/p470-wong.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-3/p470-wong/`.

Zaniolo:1982:NNF

[166] Carlo Zaniolo. A new normal form for the design of relational database schemata. *ACM Transactions on Database Systems*, 7(3):489–499, September 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1982-7-3/p489-zaniolo/p489-zaniolo.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-3/p489-zaniolo/`.

Lam:1982:CSA

[167] K. Lam and C. T. Yu. A clustered search algorithm incorporating arbitrary term dependencies. *ACM Transactions on Database Systems*, 7(3):500–508, September 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1982-7-3/p500-lam/p500-lam.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-3/p500-lam/`.

Batory:1982:UMP

[168] D. S. Batory and C. C. Gotlieb. A unifying model of physical databases. *ACM Transactions on Database Systems*, 7(4):509–539, December 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-4/p509-batory/p509-batory.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-4/p509-batory/.

Aghili:1982:PGD

[169] Houtan Aghili and Dennis G. Severance. Practical guide to the design of differential files for recovery of online databases. *ACM Transactions on Database Systems*, 7(4):540–565, December 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-4/p540-aghili/p540-aghili.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-4/p540-aghili/.

Larson:1982:PAL

[170] Per-Åke Larson. Performance analysis of linear hashing with partial expansions. *ACM Transactions on Database Systems*, 7(4):566–587, December 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-4/p566-larson/p566-larson.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-4/p566-larson/.

Babb:1982:JNF

[171] E. Babb. Joined normal form: a storage encoding for relational databases. *ACM Transactions on Database Systems*, 7(4):588–614, December 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-4/p588-babb/p588-babb.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-4/p588-babb/.

Heyman:1982:MMD

[172] Daniel P. Heyman. Mathematical models of database degradation. *ACM Transactions on Database Systems*, 7(4):615–631, December 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-4/p615-heyman/p615-heyman.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-4/p615-heyman/.

Korth:1982:DFU

[173] Henry F. Korth. Deadlock freedom using edge locks. *ACM Transactions on Database Systems*, 7(4):632–652, December 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1982-7-4/p632-korth/p632-korth.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-4/p632-korth/.

Goodman:1982:TQS

[174] Nathan Goodman and Oded Shmueli.

Tree queries: a simple class of relational queries. *ACM Transactions on Database Systems*, 7(4):653–677, December 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1982-7-4/p653-goodman/p653-goodman.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-4/p653-goodman/`.

Kerschberg:1982:QOS

[175] Larry Kerschberg, Peter D. Ting, and S. Bing Yao. Query optimization in star computer networks. *ACM Transactions on Database Systems*, 7(4):678–711, December 1982. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1982-7-4/p678-kerschberg/p678-kerschberg.pdf; http://www.acm.org/pubs/citations/journals/tods/1982-7-4/p678-kerschberg/`.

Maier:1983:MOS

[176] David Maier and Jeffrey D. Ullman. Maximal objects and the semantics of universal relation databases. *ACM Transactions on Database Systems*, 8(1):1–14, March 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-1/p1-maier/p1-maier.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-1/p1-maier/`. Also published in/as: SUNY, Stony Brook, CS, TR 80/016, 1980.

Haskin:1983:OCH

[177] Roger L. Haskin and Lee A. Hollaar. Operational characteristics of a hardware-based pattern matcher. *ACM Transactions on Database Systems*, 8(1):15–40, March 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-1/p15-haskin/p15-haskin.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-1/p15-haskin/`.

Sicherman:1983:AQR

[178] George L. Sicherman, Wiebren De Jonge, and Reind P. Van De Riet. Answering queries without revealing secrets. *ACM Transactions on Database Systems*, 8(1):41–59, March 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-1/p41-sicherman/p41-sicherman.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-1/p41-sicherman/`. Also published in/as: reprinted in deJonge thesis, Jun. 1985.

deJonge:1983:CSD

[179] Wiebren de Jonge. Compromising statistical databases responding to queries about means. *ACM Transactions on Database Systems*, 8(1):60–80, March 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-1/p60-de_jonge/p60-de_jonge.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-1/p60-de_jonge/`. Also pub-

lished in/as: reprinted in Jun. 1985 thesis.

Graham:1983:FD

[180] Marc H. Graham. Functions in databases. *ACM Transactions on Database Systems*, 8(1):81–109, March 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-1/p81-graham/p81-graham.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-1/p81-graham/`.

Katz:1983:RCG

[181] R. H. Katz and E. Wong. Resolving conflicts in global storage design through replication. *ACM Transactions on Database Systems*, 8(1):110–135, March 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-1/p110-katz/p110-katz.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-1/p110-katz/`.

Lomet:1983:BIE

[182] David B. Lomet. Bounded index exponential hashing. *ACM Transactions on Database Systems*, 8(1):136–165, March 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-1/p136-lomet/p136-lomet.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-1/p136-lomet/`.

Stonebraker:1983:PER

[183] Michael Stonebraker, John Woodfill, Jeff Ranstrom, Marguerite Murphy, Marc Meyer, and Eric Allman. Performance enhancements to a relational database system. *ACM Transactions on Database Systems*, 8(2):167–185, June 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-2/p167-stonebraker/p167-stonebraker.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-2/p167-stonebraker/`.

Garcia-Molina:1983:USK

[184] Héctor García-Molina. Using semantic knowledge for transaction processing in a distributed database. *ACM Transactions on Database Systems*, 8(2):186–213, June 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-2/p186-garcia-molina/p186-garcia-molina.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-2/p186-garcia-molina/`.

Clifford:1983:FST

[185] James Clifford and David S. Warren. Formal semantics for time in databases. *ACM Transactions on Database Systems*, 8(2):214–254, June 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-2/p214-clifford/p214-clifford.pdf; http://www.acm.org/pubs/`

citations/journals/tods/1983-8-2/p214-clifford/.

Bitton:1983:DRE

[186] Dina Bitton and David J. DeWitt. Duplicate record elimination in large data files. *ACM Transactions on Database Systems*, 8(2):255–265, June 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-2/p255-bitton/p255-bitton.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-2/p255-bitton/.

Sagiv:1983:CGC

[187] Yehoshua Sagiv. A characterization of globally consistent databases and their correct access paths. *ACM Transactions on Database Systems*, 8(2):266–286, June 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-2/p266-sagiv/p266-sagiv.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-2/p266-sagiv/.

Ullman:1983:CTJ

[188] Jeffrey D. Ullman. Corrigendum: The theory of joins in relational databases. *ACM Transactions on Database Systems*, 8(2):287, June 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). See [79].

Cardenas:1983:PRA

[189] Alfonso F. Cardenas, Farid Alavian, and Algirdas Avizienis. Performance of recovery architectures in parallel associative database processors. *ACM Transactions on Database Systems*, 8(3):291–323, September 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-3/p291-cardenas/p291-cardenas.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-3/p291-cardenas/.

Bitton:1983:PAE

[190] Dina Bitton, Haran Boral, David J. DeWitt, and W. Kevin Wilkinson. Parallel algorithms for the execution of relational database operations. *ACM Transactions on Database Systems*, 8(3):324–353, September 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-3/p324-bitton/p324-bitton.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-3/p324-bitton/.

Eager:1983:ARD

[191] Derek L. Eager and Kenneth C. Sevcik. Achieving robustness in distributed database systems. *ACM Transactions on Database Systems*, 8(3):354–381, September 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-3/p354-eager/p354-eager.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-3/p354-eager/.

Trueblood:1983:MMM

[192] Robert P. Trueblood, H. Rex Hartson, and Johannes J. Martin. MULTISAFE — A modular multiprocessing approach to secure database management. *ACM Transactions on Database Systems*, 8(3):382–409, September 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-3/p382-trueblood/p382-trueblood.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-3/p382-trueblood/`.

Ito:1983:HFO

[193] Tetsuro Ito and Makoto Kizawa. Hierarchical file organization and its application to similar-string matching. *ACM Transactions on Database Systems*, 8(3):410–433, September 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-3/p410-ito/p410-ito.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-3/p410-ito/`.

Kolodner:1983:IRS

[194] Janet L. Kolodner. Indexing and retrieval strategies for natural language fact retrieval. *ACM Transactions on Database Systems*, 8(3):434–464, September 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-3/p434-kolodner/p434-kolodner.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-3/p434-kolodner/`.

Bernstein:1983:MCC

[195] Philip A. Bernstein and Nathan Goodman. Multiversion concurrency control — theory and algorithms. *ACM Transactions on Database Systems*, 8(4):465–483, December 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-4/p465-bernstein/p465-bernstein.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-4/p465-bernstein/`.

Lynch:1983:MAN

[196] Nancy A. Lynch. Multilevel atomicity — A new correctness criterion for database concurrency control. *ACM Transactions on Database Systems*, 8(4):484–502, December 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1983-8-4/p484-lynch/p484-lynch.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-4/p484-lynch/`.

Hecht:1983:SMF

[197] Matthew S. Hecht and John D. Gabbe. Shadowed management of free disk pages with a linked list. *ACM Transactions on Database Systems*, 8(4):503–514, December 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/`

1983-8-4/p503-hecht/p503-hecht.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-4/p503-hecht/.

Malhotra:1983:EIA

[198] A. Malhotra, H. M. Markowitz, and D. P. Pazel. EAS-E: An integrated approach to application development. *ACM Transactions on Database Systems*, 8(4):515–542, December 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-4/p515-malhotra/p515-malhotra.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-4/p515-malhotra/.

Moran:1983:CDO

[199] Shlomo Moran. On the complexity of designing optimal partial-match retrieval systems. *ACM Transactions on Database Systems*, 8(4):543–551, December 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-4/p543-moran/p543-moran.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-4/p543-moran/.

Ramamohanarao:1983:PMR

[200] K. Ramamohanarao, John W. Lloyd, and James A. Thom. Partial-match retrieval using hashing and descriptors. *ACM Transactions on Database Systems*, 8(4):552–576, December 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-4/p552-ramamohanarao/p552-ramamohanarao.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-4/p552-ramamohanarao/.

Ceri:1983:CQE

[201] S. Ceri and G. Pelagatti. Correctness of query execution strategies in distributed databases. *ACM Transactions on Database Systems*, 8(4):577–607, December 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-4/p577-ceri/p577-ceri.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-4/p577-ceri/.

Biskup:1983:FCR

[202] Joachim Biskup. A foundation of Codd's relational maybe operators. *ACM Transactions on Database Systems*, 8(4):608–636, December 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-4/p608-biskup/p608-biskup.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-4/p608-biskup/.

Ullman:1983:KCA

[203] Jeffrey D. Ullman. On Kent's "Consequences of assuming a universal relation" (Technical correspondence). *ACM Transactions on Database Systems*, 8(4):637–643, December 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644

(electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-4/p637-ullman/p637-ullman.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-4/p637-ullman/. See [137].

Kent:1983:URR

[204] William Kent. The universal relation revisited (technical correspondence). *ACM Transactions on Database Systems*, 8(4):644–648, December 1983. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1983-8-4/p644-kent/p644-kent.pdf; http://www.acm.org/pubs/citations/journals/tods/1983-8-4/p644-kent/.

Kaplan:1984:DPN

[205] S. Jerrold Kaplan. Designing a portable natural language database query system. *ACM Transactions on Database Systems*, 9(1):1–19, March 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-1/p1-kaplan/p1-kaplan.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-1/p1-kaplan/.

Reiss:1984:PDS

[206] Steven P. Reiss. Practical data-swapping: The first steps. *ACM Transactions on Database Systems*, 9(1):20–37, March 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-1/p20-reiss/p20-reiss.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-1/p20-reiss/.

Nievergelt:1984:GFA

[207] J. Nievergelt, Hans Hinterberger, and Kenneth C. Sevcik. The grid file: An adaptable, symmetric multikey file structure. *ACM Transactions on Database Systems*, 9(1):38–71, March 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-1/p38-nievergelt/p38-nievergelt.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-1/p38-nievergelt/.

Buchanan:1984:DMS

[208] Jack R. Buchanan, Richard D. Fennell, and Hanan Samet. A database management system for the Federal Courts. *ACM Transactions on Database Systems*, 9(1):72–88, March 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-1/p72-buchanan/p72-buchanan.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-1/p72-buchanan/.

Papadimitriou:1984:CCM

[209] Christos H. Papadimitriou and Paris C. Kanellakis. On concurrency control by multiple versions. *ACM Transactions on Database Systems*, 9(1):89–99, March 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/

1984-9-1/p89-papadimitriou/p89-papadimitriou.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-1/p89-papadimitriou/.

Shultz:1984:RTA

[210] Roger K. Shultz and Roy J. Zingg. Response time analysis of multiprocessor computers for database support. *ACM Transactions on Database Systems*, 9 (1):100–132, March 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-1/p100-shultz/p100-shultz.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-1/p100-shultz/.

Valduriez:1984:JSA

[211] Patrick Valduriez and Georges Gardarin. Join and semijoin algorithms for a multiprocessor database machine. *ACM Transactions on Database Systems*, 9(1):133–161, March 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-1/p133-valduriez/p133-valduriez.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-1/p133-valduriez/.

Christodoulakis:1984:ICA

[212] S. Christodoulakis. Implications of certain assumptions in database performance evaluation. *ACM Transactions on Database Systems*, 9(2):163–186, June 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-2/p163-christodoulakis/p163-christodoulakis.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-2/p163-christodoulakis/.

Effelsberg:1984:LIP

[213] Wolfgang Effelsberg and Mary E. S. Loomis. Logical, internal, and physical reference behavior in CODASYL database systems. *ACM Transactions on Database Systems*, 9(2):187–213, June 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-2/p187-effelsberg/p187-effelsberg.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-2/p187-effelsberg/.

Kim:1984:PPR

[214] Won Kim, Daniel Gajski, and David J. Kuck. A parallel pipelined relational query processor. *ACM Transactions on Database Systems*, 9(2):214–242, June 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-2/p214-kim/p214-kim.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-2/p214-kim/.

Al-Suwaiyel:1984:ATC

[215] M. Al-Suwaiyel and E. Horowitz. Algorithms for trie compaction. *ACM Transactions on Database Systems*, 9 (2):243–263, June 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1984-9-2/p243-ai-suwaiyel/.

Mendelzon:1984:DST

[216] Alberto O. Mendelzon. Database states and their tableaux. *ACM Transactions on Database Systems*, 9(2):264–282, June 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-2/p264-mendelzon/p264-mendelzon.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-2/p264-mendelzon/.

Maier:1984:FUR

[217] David Maier, Jeffrey D. Ullman, and Moshe Y. Vardi. On the foundations of the universal relation model. *ACM Transactions on Database Systems*, 9(2):283–308, June 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-2/p283-maier/p283-maier.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-2/p283-maier/.

Katsuno:1984:ECF

[218] Hirofumi Katsuno. An extension of conflict-free multi-valued dependency sets. *ACM Transactions on Database Systems*, 9(2):309–326, June 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-2/p309-katsuno/p309-katsuno.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-2/p309-katsuno/.

Korth:1984:SUD

[219] Henry F. Korth, Gabriel M. Kuper, Joan Feigenbaum, Allen Van Gelder, and Jeffrey D. Ullman. System/U: a database system based on the universal relation assumption. *ACM Transactions on Database Systems*, 9(3):331–347, September 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-3/p331-korth/p331-korth.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-3/p331-korth/.

Wald:1984:RQI

[220] Joseph A. Wald and Paul G. Sorenson. Resolving the query inference problem using Steiner trees. *ACM Transactions on Database Systems*, 9(3):348–368, September 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-3/p348-wald/p348-wald.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-3/p348-wald/.

Ramamohanarao:1984:RLH

[221] K. Ramamohanarao and R. Sacks-Davis. Recursive linear hashing. *ACM Transactions on Database Systems*, 9(3):369–391, September 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-3/p369-ramamohanarao/p369-ramamohanarao.pdf; http://www.acm.org/pubs/citations/journals/

tods/1984-9-3/p369-ramamohanarao/.

Cooper:1984:ATU

[222] Robert B. Cooper and Martin K. Solomon. The average time until bucket overflow. *ACM Transactions on Database Systems*, 9(3):392–408, September 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-3/p392-cooper/p392-cooper.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-3/p392-cooper/.

March:1984:SER

[223] Salvatore T. March and Gary D. Scudder. On the selection of efficient record segmentations and backup strategies for large shared databases. *ACM Transactions on Database Systems*, 9(3):409–438, September 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-3/p409-march/p409-march.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-3/p409-march/.

Manber:1984:CCD

[224] Udi Manber and Richard E. Ladner. Concurrency control in a dynamic search structure. *ACM Transactions on Database Systems*, 9(3):439–455, September 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1984-9-3/p439-manbar/. Also published in/as: ACM Proc. on Database Systems, Boston, Apr. 1982, pp. 268–282.

Davidson:1984:OCP

[225] Susan B. Davidson. Optimism and consistency in partitioned distributed database systems. *ACM Transactions on Database Systems*, 9(3):456–481, September 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-3/p456-davidson/p456-davidson.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-3/p456-davidson/.

Ibaraki:1984:ONO

[226] Toshihide Ibaraki and Tiko Kameda. On the optimal nesting order for computing N-relational joins. *ACM Transactions on Database Systems*, 9(3): 482–502, September 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-3/p482-ibaraki/p482-ibaraki.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-3/p482-ibaraki/.

Elhardt:1984:DCH

[227] Klaus Elhardt and Rudolf Bayer. A database cache for high performance and fast restart in database systems. *ACM Transactions on Database Systems*, 9(4):503–525, December 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-4/p503-elhardt/p503-

elhardt.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-4/p503-elhardt/.

Reuter:1984:PAR

[228] Andreas Reuter. Performance analysis of recovery techniques. *ACM Transactions on Database Systems*, 9(4): 526–559, December 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-4/p526-reuter/p526-reuter.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-4/p526-reuter/.

Effelsberg:1984:PDB

[229] Wolfgang Effelsberg and Theo Haerder. Principles of database buffer management. *ACM Transactions on Database Systems*, 9(4):560–595, December 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-4/p560-effelsberg/p560-effelsberg.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-4/p560-effelsberg/.

Bernstein:1984:ACC

[230] Philip A. Bernstein and Nathan Goodman. An algorithm for concurrency control and recovery in replicated distributed databases. *ACM Transactions on Database Systems*, 9(4):596–615, December 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-4/p596-bernstein/p596-bernstein.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-4/p596-bernstein/.

Chen:1984:ANV

[231] Wen Chin Chen and Jeffrey Scott Vitter. Analysis of new variants of coalesced hashing. *ACM Transactions on Database Systems*, 9(4):616–645, December 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-4/p616-chen/p616-chen.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-4/p616-chen/.

Deogun:1984:OCF

[232] J. S. Deogun, V. V. Raghavan, and T. K. W. Tsou. Organization of clustered files for consecutive retrieval. *ACM Transactions on Database Systems*, 9(4):646–671, December 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-4/p646-deogun/p646-deogun.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-4/p646-deogun/.

Traub:1984:SSS

[233] J. F. Traub, Y. Yemini, and H. Wozniakowski. The statistical security of a statistical database. *ACM Transactions on Database Systems*, 9(4): 672–679, December 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Navathe:1984:VPA

[234] Shamkant Navathe, Stefano Ceri, Gio Wiederhold, and Jinglie Dou.

Vertical partitioning algorithms for database design. *ACM Transactions on Database Systems*, 9(4):680–710, December 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1984-9-4/p680-navathe/p680-navathe.pdf; http://www.acm.org/pubs/citations/journals/tods/1984-9-4/p680-navathe/. Also published in/as: Stanford Un., TR-CS-82-957, Jan. 1983, revised Aug. 1983.

Maier:1984:DFG

[235] D. Maier. Databases in the fifth generation project: Is Prolog a database language? *ACM Transactions on Database Systems*, 9(2):??, June 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). Also published in/as: ACM SIGMOD, 1984.

Skeen:1984:IAP

[236] D. Skeen and D. D. Wright. Increasing availability in partitioned database systems. *ACM Transactions on Database Systems*, ??(??):290–299, April 1984. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Franaszek:1985:LCT

[237] Peter Franaszek and John T. Robinson. Limitations of concurrency in transaction processing. *ACM Transactions on Database Systems*, 10(1):1–28, March 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-1/p1-franaszek/p1-franaszek.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-1/p1-franaszek/; http://www.acm.org/pubs/toc/Abstracts/tods/3160.html.

Sacca:1985:DPC

[238] Domenico Sacca and Gio Wiederhold. Database partitioning in a cluster of processors. *ACM Transactions on Database Systems*, 10(1):29–56, March 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-1/p29-sacca/p29-sacca.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-1/p29-sacca/; http://www.acm.org/pubs/toc/Abstracts/tods/3161.html. Also published in [1090, 242–247], and IBM Research Report No. RJ-4076, 1983.

Pramanik:1985:UGT

[239] Sakti Pramanik and David Ittner. Use of graph-theoretic models for optimal relational database accesses to perform join. *ACM Transactions on Database Systems*, 10(1):57–74, March 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-1/p57-pramanik/p57-pramanik.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-1/p57-pramanik/; http://www.acm.org/pubs/toc/Abstracts/tods/3325.html.

Larson:1985:LHO

[240] Per-Åke Larson. Linear hashing with overflow-handling by linear probing. *ACM Transactions on Database Systems*, 10(1):75–89,

March 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-1/p75-larson/p75-larson.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-1/p75-larson/; http://www.acm.org/pubs/toc/Abstracts/tods/3324.html.

Veklerov:1985:ADH

[241] Eugene Veklerov. Analysis of dynamic hashing with deferred splitting. *ACM Transactions on Database Systems*, 10(1):90–96, March 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-1/p90-veklerov/p90-veklerov.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-1/p90-veklerov/.

Palvia:1985:EBS

[242] Prashant Palvia. Expressions for batched searching of sequential and hierarchical files. *ACM Transactions on Database Systems*, 10(1):97–106, March 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-1/p97-palvia/p97-palvia.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-1/p97-palvia/; http://www.acm.org/pubs/toc/Abstracts/tods/3326.html.

Bever:1985:DHS

[243] Martin Bever and Peter C. Lockemann. Database hosting in strongly-typed programming languages. *ACM Transactions on Database Systems*, 10(1):107–126, March 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-1/p107-bever/p107-bever.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-1/p107-bever/; http://www.acm.org/pubs/toc/Abstracts/tods/3327.html.

Chen:1985:AAS

[244] Wen Chin Chen and Jeffrey Scott Vitter. Addendum to: "Analysis of Some New Variants of Coalesced Hashing" [ACM trans. database systems **9** (1984), no. 4, 616–645]. *ACM Transactions on Database Systems*, 10(1):127, March 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Vitter:1985:EIO

[245] Jeffrey Scott Vitter. An efficient I/O interface for optical disks. *ACM Transactions on Database Systems*, 10(2):129–162, June 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-2/p129-vitter/p129-vitter.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-2/p129-vitter/; http://www.acm.org/pubs/toc/Abstracts/tods/3862.html.

Schkolnick:1985:ECU

[246] M. Schkolnick and P. Tiberio. Estimating the cost of updates in a relational database. *ACM Transactions on Database Systems*, 10(2):163–179, June 1985. CODEN ATDSD3.

ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-2/p163-schkolnick/p163-schkolnick.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-2/p163-schkolnick/; http://www.acm.org/pubs/toc/Abstracts/tods/3863.html.

Yu:1985:ARC

[247] C. T. Yu, Cheing-Mei Suen, K. Lam, and M. K. Siu. Adaptive record clustering. *ACM Transactions on Database Systems*, 10(2):180–204, June 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-2/p180-yu/p180-yu.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-2/p180-yu/; http://www.acm.org/pubs/toc/Abstracts/tods/3861.html.

Katoh:1985:CTS

[248] Naoki Katoh, Toshihide Ibaraki, and Tiko Kameda. Cautious transaction schedulers with admission control. *ACM Transactions on Database Systems*, 10(2):205–229, June 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-2/p205-katoh/p205-katoh.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-2/p205-katoh/; http://www.acm.org/pubs/toc/Abstracts/tods/3860.html.

Albano:1985:GST

[249] Antonio Albano, Luca Cardelli, and Renzo Orsini. Galileo: a strongly-typed, interactive conceptual language. *ACM Transactions on Database Systems*, 10(2):230–260, June 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-2/p230-albano/p230-albano.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-2/p230-albano/; http://www.acm.org/pubs/toc/Abstracts/tods/3859.html. Also published in [1095].

Huang:1985:HBT

[250] Shou-Hsuan Stephen Huang. Height-balanced trees of order (β, γ, δ). *ACM Transactions on Database Systems*, 10(2):261–284, June 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-2/p261-huang/p261-huang.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-2/p261-huang/.

Piwowarski:1985:CBS

[251] Marek Piwowarski. Comments on batched searching of sequential and tree-structured files. *ACM Transactions on Database Systems*, 10(2):285–287, June 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-2/p285-piwowarski/p285-piwowarski.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-2/p285-piwowarski/; http://www.acm.org/pubs/toc/Abstracts/tods/214294.html. See [16, 168].

Ullman:1985:ILQ

[252] Jeffrey D. Ullman. Implementation of logical query languages for databases. *ACM Transactions on Database Systems*, 10(3):289–321, September 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1985-10-3/p289-ullman/p289-ullman.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-3/p289-ullman/; http://www.acm.org/pubs/toc/Abstracts/tods/3980.html`. Sep., YEAR = 1985.

Anonymous:1985:SPA

[253] Anonymous. Selected papers from the 1985 ACM SIGMOD Conference. *ACM Transactions on Database Systems*, 10 (3):289–346, September 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Batory:1985:MCV

[254] D. S. Batory and Won Kim. Modeling concepts for VLSI CAD objects. *ACM Transactions on Database Systems*, 10(3):322–346, September 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1985-10-3/p322-batory/p322-batory.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-3/p322-batory/; http://www.acm.org/pubs/toc/Abstracts/tods/4018.html`. Also published in/as: ACM-SIGMOD 1985.

Subieta:1985:SQL

[255] Kazimierz Subieta. Semantics of query languages for network databases. *ACM Transactions on Database Systems*, 10 (3):347–394, September 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1985-10-3/p347-subieta/p347-subieta.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-3/p347-subieta/; http://www.acm.org/pubs/toc/Abstracts/tods/214293.html`.

Liew:1985:DDP

[256] Chong K. Liew, Uinam J. Choi, and Chung J. Liew. A data distortion by probability distribution. *ACM Transactions on Database Systems*, 10(3):395–411, September 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1985-10-3/p395-liew/p395-liew.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-3/p395-liew/; http://www.acm.org/pubs/toc/Abstracts/tods/4017.html`.

Tay:1985:LPC

[257] Y. C. Tay, Nathan Goodman, and Rajan Suri. Locking performance in centralized databases. *ACM Transactions on Database Systems*, 10(4):415–462, December 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1985-10-4/p415-tay/p415-tay.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-4/p415-tay/`

; http://www.acm.org/pubs/toc/Abstracts/tods/4880.html.

Batory:1985:MSA

[258] D. S. Batory. Modeling the storage architectures of commercial database systems. *ACM Transactions on Database Systems*, 10(4):463–528, December 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-4/p463-batory/p463-batory.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-4/p463-batory/; http://www.acm.org/pubs/toc/Abstracts/tods/5392.html.

Agrawal:1985:ICC

[259] Rakesh Agrawal and David J. Dewitt. Integrated concurrency control and recovery mechanisms: Design and performance evaluation. *ACM Transactions on Database Systems*, 10(4):529–564, December 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-4/p529-agrawal/p529-agrawal.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-4/p529-agrawal/; http://www.acm.org/pubs/toc/Abstracts/tods/4958.html.

Borgida:1985:LFF

[260] Alexander Borgida. Language features for flexible handling of exceptions in information systems. *ACM Transactions on Database Systems*, 10(4):565–603, December 1985. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1985-10-4/p565-borgida/p565-borgida.pdf; http://www.acm.org/pubs/citations/journals/tods/1985-10-4/p565-borgida/; http://www.acm.org/pubs/toc/Abstracts/tods/4995.html. Also published in/as: Rutgers Un., TR-LCSR-70, rev. Mar. 1985.

Hagmann:1986:PAS

[261] Robert Brian Hagmann and Domenico Ferrari. Performance analysis of several back-end database architectures. *ACM Transactions on Database Systems*, 11(1):1–26, March 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-1/p1-hagmann/p1-hagmann.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-1/p1-hagmann/; http://www.acm.org/pubs/toc/Abstracts/tods/5242.html.

Garcia-Molina:1986:ABA

[262] Héctor García-Molina, Frank Pittelli, and Susan Davidson. Applications of Byzantine agreement in database systems. *ACM Transactions on Database Systems*, 11(1):27–47, March 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-1/p27-molina/p27-molina.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-1/p27-molina/; http://www.acm.org/pubs/toc/Abstracts/tods/5243.html.

Segev:1986:OJO

[263] Arie Segev. Optimization of join operations in horizontally partitioned database systems. *ACM Transactions on Database Systems*, 11(1):48–80, March 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-1/p48-segev/p48-segev.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-1/p48-segev/; http://www.acm.org/pubs/toc/Abstracts/tods/5241.html.

Gyssens:1986:CJD

[264] Marc Gyssens. On the complexity of join dependencies. *ACM Transactions on Database Systems*, 11(1):81–108, March 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-1/p81-gyssens/p81-gyssens.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-1/p81-gyssens/; http://www.acm.org/pubs/toc/Abstracts/tods/5237.html.

Sacco:1986:FTE

[265] Giovanni Maria Sacco. Fragmentation: a technique for efficient query processing. *ACM Transactions on Database Systems*, 11(2):113–133, June 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-2/p113-sacco/p113-sacco.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-2/p113-sacco/; http://www.acm.org/pubs/toc/Abstracts/tods/5638.html. Also published in/as: University of Torino, TR., Aug. 1983.

Beeri:1986:IAL

[266] Catriel Beeri and Michael Kifer. An integrated approach to logical design of relational database schemes. *ACM Transactions on Database Systems*, 11(2):134–158, June 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-2/p134-beeri/p134-beeri.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-2/p134-beeri/; http://www.acm.org/pubs/toc/Abstracts/tods/214291.html.

Mendelson:1986:IIC

[267] Haim Mendelson and Aditya N. Saharia. Incomplete information costs and database design. *ACM Transactions on Database Systems*, 11(2):159–185, June 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-2/p159-mendelson/p159-mendelson.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-2/p159-mendelson/; http://www.acm.org/pubs/toc/Abstracts/tods/5678.html.

Ginsburg:1986:CTS

[268] Seymour Ginsburg and Katsumi Tanaka. Computation-tuple sequences and object histories. *ACM Transactions on Database Systems*, 11(2):186–212, June 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644

(electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-2/p186-ginsburg/p186-ginsburg.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-2/p186-ginsburg/; http://www.acm.org/pubs/toc/Abstracts/tods/5924.html.

Garg:1986:OPK

[269] Anil K. Garg and C. C. Gotlieb. Order-preserving key transformations. *ACM Transactions on Database Systems*, 11(2):213–234, June 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-2/p213-garg/p213-garg.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-2/p213-garg/; http://www.acm.org/pubs/toc/Abstracts/tods/5923.html.

Shapiro:1986:JPD

[270] Leonard D. Shapiro. Join processing in database systems with large main memories. *ACM Transactions on Database Systems*, 11(3):239–264, September 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-3/p239-shapiro/p239-shapiro.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-3/p239-shapiro/; http://www.acm.org/pubs/toc/Abstracts/tods/6315.html.

Gavish:1986:SQO

[271] Bezalel Gavish and Arie Segev. Set query optimization in distributed database systems. *ACM Transactions on Database Systems*, 11(3):265–293, September 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-3/p265-gavish/p265-gavish.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-3/p265-gavish/; http://www.acm.org/pubs/toc/Abstracts/tods/6488.html.

Lafortune:1986:STM

[272] Stéphane Lafortune and Eugene Wong. A state transition model for distributed query processing. *ACM Transactions on Database Systems*, 11(3):294–322, September 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-3/p294-lafortune/p294-lafortune.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-3/p294-lafortune/; http://www.acm.org/pubs/toc/Abstracts/tods/6460.html.

Lozinskii:1986:POI

[273] Eliezer L. Lozinskii. A problem-oriented inferential database system. *ACM Transactions on Database Systems*, 11(3):323–356, September 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-3/p323-lozinskii/p323-lozinskii.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-3/p323-lozinskii/; http://www.acm.org/pubs/toc/Abstracts/tods/6419.html.

Osborn:1986:DRD

[274] Sylvia L. Osborn and T. E. Heaven. The design of a relational database system with abstract data types for domains. *ACM Transactions on Database Systems*, 11(3):357–373, September 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-3/p357-osborn/p357-osborn.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-3/p357-osborn/; http://www.acm.org/pubs/toc/Abstracts/tods/6461.html.

Gawlick:1986:RIW

[275] Dieter Gawlick. Report on the international workshop on high-performance transaction systems. *ACM Transactions on Database Systems*, 11(4):375–377, December 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-4/p375-gawlick/p375-gawlick.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-4/p375-gawlick/; http://www.acm.org/pubs/toc/Abstracts/tods/17346.html.

Mohan:1986:TMR

[276] C. Mohan, B. Lindsay, and R. Obermarck. Transaction management in the R* distributed database management system. *ACM Transactions on Database Systems*, 11(4):378–396, December 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-4/p378-mohan/p378-mohan.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-4/p378-mohan/; http://www.acm.org/pubs/toc/Abstracts/tods/7266.html.

Bayer:1986:CTR

[277] Rudolf Bayer. Consistency of transactions and random batch. *ACM Transactions on Database Systems*, 11(4):397–404, December 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-4/p397-bayer/p397-bayer.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-4/p397-bayer/; http://www.acm.org/pubs/toc/Abstracts/tods/214287.html.

ONeil:1986:ETM

[278] Patrick E. O'Neil. The Escrow transactional method. *ACM Transactions on Database Systems*, 11(4):405–430, December 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-4/p405-o_neil/p405-o_neil.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-4/p405-o_neil/; http://www.acm.org/pubs/toc/Abstracts/tods/7265.html.

Hsu:1986:PTP

[279] Meichun Hsu and Arvola Chan. Partitioned two-phase locking. *ACM Transactions on Database Systems*, 11(4):431–446, December 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://

www.acm.org/pubs/articles/journals/tods/1986-11-4/p431-hsu/p431-hsu.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-4/p431-hsu/; http://www.acm.org/pubs/toc/Abstracts/tods/7477.html.

Luk:1986:EEL

[280] W. S. Luk and Steve Kloster. ELFS: English language from SQL. *ACM Transactions on Database Systems*, 11 (4):447–472, December 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sacco:1986:BMR

[281] Giovanni Maria Sacco and Mario Schkolnick. Buffer management in relational database systems. *ACM Transactions on Database Systems*, 11(4): 473–498, December 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-4/p473-sacco/p473-sacco.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-4/p473-sacco/; http://www.acm.org/pubs/toc/Abstracts/tods/7336.html.

Ariav:1986:TOD

[282] Gad Ariav. A temporally oriented data model. *ACM Transactions on Database Systems*, 11(4):499–527, December 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1986-11-4/p499-ariav/p499-ariav.pdf; http://www.acm.org/pubs/citations/journals/tods/1986-11-4/p499-ariav/; http://www.acm.org/pubs/toc/Abstracts/tods/7350.html.

Albano:1986:OSG

[283] Antonio Albano, S. Alfo, Luca Cardelli, and Renzo Orsini. An overview of SIDEREUS: a graphical database schema editor for Galileo. *ACM Transactions on Database Systems*, 11 (??):568–571, ???? 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Durand:1986:FMS

[284] Charles Durand. Forward multidimensional search with applications to information retrieval. *ACM Transactions on Database Systems*, ??(??):??, September 1986. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). Submitted.

Spyratos:1987:PMD

[285] Nicolas Spyratos. The partition model: a deductive database model. *ACM Transactions on Database Systems*, 12(1):1–37, March 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-1/p1-spyratos/p1-spyratos.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-1/p1-spyratos/; http://www.acm.org/pubs/toc/Abstracts/tods/22718.html. Also published in/as: Institut National de la Recherche en Informatique et Automatique, TR-286, Apr. 1983.

Wu:1987:ASM

[286] C. T. Wu and Walter A. Burkhard. Associative searching in multiple storage units. *ACM Transactions on*

Database Systems, 12(1):38–64, March 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-1/p38-wu/p38-wu.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-1/p38-wu/; http://www.acm.org/pubs/toc/Abstracts/tods/12048.html. Discusses interpolation hashing, a multidimensional variant of linear hashing.

Lomet:1987:PEF

[287] David B. Lomet. Partial expansions for file organizations with an index. *ACM Transactions on Database Systems*, 12(1):65–84, March 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-1/p65-lomet/p65-lomet.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-1/p65-lomet/; http://www.acm.org/pubs/toc/Abstracts/tods/12049.html.

Fedorowicz:1987:DPE

[288] Jane Fedorowicz. Database performance evaluation in an indexed file environment. *ACM Transactions on Database Systems*, 12(1):85–110, March 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-1/p85-fedorowicz/p85-fedorowicz.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-1/p85-fedorowicz/; http://www.acm.org/pubs/toc/Abstracts/tods/13675.html.

Ozsoyoglu:1987:NNF

[289] Z. Meral Özsoyoğlu and Li-Yan Yuan. A new normal form for nested relations. *ACM Transactions on Database Systems*, 12(1):111–136, March 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-1/p111-ozsoyoglu/p111-ozsoyoglu.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-1/p111-ozsoyoglu/; http://www.acm.org/pubs/toc/Abstracts/tods/13676.html.

Christodoulakis:1987:ARP

[290] Stavros Christodoulakis. Analysis of retrieval performance for records and objects using optical disk technology. *ACM Transactions on Database Systems*, 12(2):137–169, June 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-2/p137-christodoulakis/p137-christodoulakis.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-2/p137-christodoulakis/; http://www.acm.org/pubs/toc/Abstracts/tods/23015.html.

Herlihy:1987:DQA

[291] Maurice Herlihy. Dynamic quorum adjustment for partitioned data. *ACM Transactions on Database Systems*, 12(2):170–194, June 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-2/p170-herlihy/p170-herlihy.pdf; http://www.acm.org/

pubs/citations/journals/tods/1987-12-2/p170-herlihy/; http://www.acm.org/pubs/toc/Abstracts/tods/22953.html.

Ellis:1987:CLH

[292] Carla Schlatter Ellis. Concurrency in linear hashing. *ACM Transactions on Database Systems*, 12(2):195–217, June 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-2/p195-ellis/p195-ellis.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-2/p195-ellis/; http://www.acm.org/pubs/toc/Abstracts/tods/22954.html. Also published in [1091].

Valduriez:1987:JI

[293] Patrick Valduriez. Join indices. *ACM Transactions on Database Systems*, 12(2):218–246, June 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-2/p218-valduriez/p218-valduriez.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-2/p218-valduriez/; http://www.acm.org/pubs/toc/Abstracts/tods/22955.html. Compares join indices with inverted indices, clustered indices, B+ trees, linked lists, and hybrid hash techniques.

Snodgrass:1987:TQL

[294] Richard Snodgrass. The Temporal Query Language TQUEL. *ACM Transactions on Database Systems*, 12(2):247–298, June 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-2/p247-snodgrass/p247-snodgrass.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-2/p247-snodgrass/; http://www.acm.org/pubs/toc/Abstracts/tods/22956.html.

Wong:1987:MIR

[295] S. K. M. Wong, W. Ziarko, V. V. Raghavan, and P. C. N. Wong. On modeling of information retrieval concepts in vector spaces. *ACM Transactions on Database Systems*, 12(2):299–321, June 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-2/p299-wong/p299-wong.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-2/p299-wong/; http://www.acm.org/pubs/toc/Abstracts/tods/22957.html.

Rybinski:1987:FOL

[296] Henryk Rybiński. On first-order-logic databases. *ACM Transactions on Database Systems*, 12(3):325–349, September 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-3/p325-rybinski/p325-rybinski.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-3/p325-rybinski/; http://www.acm.org/pubs/toc/Abstracts/tods/27630.html.

Stonebraker:1987:EDS

[297] Michael Stonebraker, Jeff Anton, and Eric Hanson. Extending

a database system with procedures. *ACM Transactions on Database Systems*, 12(3):350–376, September 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-3/p350-stonebraker/p350-stonebraker.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-3/p350-stonebraker/; http://www.acm.org/pubs/toc/Abstracts/tods/27631.html. Also published in/as: UCB/ERL memo M85/59, 1985.

Ozsoyoglu:1987:RMM

[298] Z. Meral Özsoyoğlu and Li-Yan Yuan. Reduced MVDs and minimal covers. *ACM Transactions on Database Systems*, 12(3):377–394, September 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1987-12-3/p377-ozsoyoolu/; http://www.acm.org/pubs/toc/Abstracts/tods/214286.html.

Faloutsos:1987:OSE

[299] Christos Faloutsos and Stavros Christodoulakis. Optimal signature extraction and information loss. *ACM Transactions on Database Systems*, 12(3):395–428, September 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-3/p395-faloutsos/p395-faloutsos.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-3/p395-faloutsos/; http://www.acm.org/pubs/toc/Abstracts/tods/214285.html.

Ibaraki:1987:SC

[300] Toshihide Ibaraki, Tiko Kameda, and Toshimi Minoura. Serializability with constraints. *ACM Transactions on Database Systems*, 12(3):429–452, September 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-3/p429-ibaraki/p429-ibaraki.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-3/p429-ibaraki/; http://www.acm.org/pubs/toc/Abstracts/tods/214284.html.

Wolfson:1987:OLC

[301] Ouri Wolfson. The overhead of locking (and commit) protocols in distributed databases. *ACM Transactions on Database Systems*, 12(3):453–471, September 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-3/p453-wolfson/p453-wolfson.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-3/p453-wolfson/; http://www.acm.org/pubs/toc/Abstracts/tods/28053.html.

Su:1987:CBD

[302] Stanley Y. W. Su, Jozo Dujmovic, D. S. Batory, S. B. Navathe, and Richard Elnicki. A cost-benefit decision model: Analysis, comparison, and selection of data management systems. *ACM Transactions on Database Systems*, 12(3):472–520, September 1987. CODEN ATDSD3.

ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-3/p472-su/p472-su.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-3/p472-su/; http://www.acm.org/pubs/toc/Abstracts/tods/33403.html.

Keller:1987:CBS

[303] Arthur M. Keller. Comment on Bancilhon and Spyratos' "Update semantics and relational views". *ACM Transactions on Database Systems*, 12(3): 521–523, September 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-3/p521-keller/p521-keller.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-3/p521-keller/; http://www.acm.org/pubs/toc/Abstracts/tods/214296.html. See [138].

Abiteboul:1987:IFS

[304] Serge Abiteboul and Richard Hull. IFO: a formal semantic database model. *ACM Transactions on Database Systems*, 12(4):525–565, December 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-4/p525-abiteboul/p525-abiteboul.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-4/p525-abiteboul/; http://www.acm.org/pubs/toc/Abstracts/tods/32205.html. Also published in/as: ACM SIGACT-SIGMOD Symp. on Principles of Database Systems, 1984 (short version). Also published in/as: USC CSD, TR-84-304, Apr. 1984.

Ozsoyoglu:1987:ERA

[305] G. Özsoyoğlu, Z. M. Özsoyoğlu, and V. Matos. Extending relational algebra and relational calculus with set-valued attributes and aggregate functions. *ACM Transactions on Database Systems*, 12(4):566–592, December 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-4/p566-ozsoyoglu/p566-ozsoyoglu.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-4/p566-ozsoyoglu/; http://www.acm.org/pubs/toc/Abstracts/tods/32219.html.

Palley:1987:URM

[306] Michael A. Palley and Jeffrey S. Simonoff. The use of regression methodology for the compromise of confidential information in statistical databases. *ACM Transactions on Database Systems*, 12(4):593–608, December 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-4/p593-palley/p593-palley.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-4/p593-palley/; http://www.acm.org/pubs/toc/Abstracts/tods/42174.html.

Agrawal:1987:CCP

[307] Rakesh Agrawal, Michael J. Carey, and Miron Livny. Concurrency control performance modeling: Alternatives and implications. *ACM Transactions on Database Systems*, 12(4):609–654, December 1987. CODEN ATDSD3.

ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-4/p609-agrawal/p609-agrawal.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-4/p609-agrawal/; http://www.acm.org/pubs/toc/Abstracts/tods/32220.html. Also published in/as: ACM SIGMOD Conf. on the Management of Data, 1985.

Sacks-Davis:1987:MAM

[308] R. Sacks-Davis, A. Kent, and K. Ramamohanarao. Multikey access methods based on superimposed coding techniques. *ACM Transactions on Database Systems*, 12(4):655–696, December 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1987-12-4/p655-sacks-davis/p655-sacks-davis.pdf; http://www.acm.org/pubs/citations/journals/tods/1987-12-4/p655-sacks-davis/; http://www.acm.org/pubs/toc/Abstracts/tods/32222.html.

Elhardt:1987:SQO

[309] K. Elhardt. Support for query optimization by optimal predicate splitting. *ACM Transactions on Database Systems*, ??(??):??, March 1987. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). Accepted.

Vianu:1988:DFO

[310] Victor Vianu. A dynamic framework for object projection views. *ACM Transactions on Database Systems*, 13(1):1–22, March 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-1/p1-vianu/p1-vianu.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-1/p1-vianu/; http://www.acm.org/pubs/toc/Abstracts/tods/42202.html.

Sellis:1988:MQO

[311] Timos K. Sellis. Multiple-query optimization. *ACM Transactions on Database Systems*, 13(1):23–52, March 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-1/p23-sellis/p23-sellis.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-1/p23-sellis/; http://www.acm.org/pubs/toc/Abstracts/tods/42203.html.

Shasha:1988:CSS

[312] Dennis Shasha and Nathan Goodman. Concurrent search structure algorithms. *ACM Transactions on Database Systems*, 13(1):53–90, March 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-1/p53-shasha/p53-shasha.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-1/p53-shasha/; http://www.acm.org/pubs/toc/Abstracts/tods/42204.html.

Finkelstein:1988:PDD

[313] S. J. Finkelstein, M. Schkolnick, and P. Tiberio. Physical database design

for relational databases. *ACM Transactions on Database Systems*, 13(1):91–128, March 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-1/p91-finkelstein/p91-finkelstein.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-1/p91-finkelstein/; http://www.acm.org/pubs/toc/Abstracts/tods/42205.html. Also published in/as: IBM Research Report No. RJ5034, Nov. 1986, preprint IBM Aug. 1985.

Raju:1988:FFD

[314] K. V. S. V. N. Raju and Arun K. Majumdar. Fuzzy functional dependencies and lossless join decomposition of fuzzy relational database systems. *ACM Transactions on Database Systems*, 13(2):129–166, June 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-2/p129-raju/p129-raju.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-2/p129-raju/; http://www.acm.org/pubs/toc/Abstracts/tods/42344.html.

Winslett:1988:MBA

[315] Marianne Winslett. A model-based approach to updating databases with incomplete information. *ACM Transactions on Database Systems*, 13(2):167–196, June 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-2/p167-winslett/p167-winslett.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-2/p167-winslett/; http://www.acm.org/pubs/toc/Abstracts/tods/42386.html.

Eich:1988:DCC

[316] Margaret H. Eich and David L. Wells. Database concurrency control using data flow graphs. *ACM Transactions on Database Systems*, 13(2):197–227, June 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-2/p197-eich/p197-eich.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-2/p197-eich/; http://www.acm.org/pubs/toc/Abstracts/tods/42345.html.

Batory:1988:ICE

[317] D. S. Batory, T. Y. Leung, and T. E. Wise. Implementation concepts for an extensible data model and data language. *ACM Transactions on Database Systems*, 13(3):231–262, September 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-3/p231-batory/p231-batory.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-3/p231-batory/; http://www.acm.org/pubs/toc/Abstracts/tods/45062.html. Also published in/as: Un. Texas, TR-86-24, Oct. 1986.

Apers:1988:DAD

[318] Peter M. G. Apers. Data allocation in distributed database systems. *ACM Transactions on Database Systems*, 13(3):263–304, September 1988. CODEN ATDSD3. ISSN

0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-3/p263-apers/p263-apers.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-3/p263-apers/; http://www.acm.org/pubs/toc/Abstracts/tods/45063.html.

Storey:1988:MCU

[319] Veda C. Storey and Robert C. Goldstein. A methodology for creating user views in database design. *ACM Transactions on Database Systems*, 13(3):305–338, September 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-3/p305-storey/p305-storey.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-3/p305-storey/; http://www.acm.org/pubs/toc/Abstracts/tods/45064.html.

Diederich:1988:NMF

[320] Jim Diederich and Jack Milton. New methods and fast algorithms for database normalization. *ACM Transactions on Database Systems*, 13(3): 339–365, September 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-3/p339-diederich/p339-diederich.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-3/p339-diederich/; http://www.acm.org/pubs/toc/Abstracts/tods/44499.html. Also published in/as: UCD, Math, revised Jun. 1987.

Larson:1988:LHS

[321] Per-Åke Larson. Linear hashing with separators — A dynamic hashing scheme achieving one-access retrieval. *ACM Transactions on Database Systems*, 13(3):366–388, September 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-3/p366-larson/p366-larson.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-3/p366-larson/; http://www.acm.org/pubs/toc/Abstracts/tods/44500.html.

Roth:1988:EAC

[322] Mark A. Roth, Henry F. Korth, and Abraham Silberschatz. Extended algebra and calculus for nested relational databases. *ACM Transactions on Database Systems*, 13(4):389–417, December 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-4/p389-roth/p389-roth.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-4/p389-roth/; http://www.acm.org/pubs/toc/Abstracts/tods/49347.html. See comment [403].

Gadia:1988:HRM

[323] Shashi K. Gadia. A homogeneous relational model and query languages for temporal databases. *ACM Transactions on Database Systems*, 13(4): 418–448, December 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/

tods/1988-13-4/p418-gadia/p418-gadia.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-4/p418-gadia/; http://www.acm.org/pubs/toc/Abstracts/tods/50065.html.

Brosda:1988:URR

[324] Volkert Brosda and Gottfried Vossen. Update and retrieval in a relational database through a universal schema interface. *ACM Transactions on Database Systems*, 13(4):449–485, December 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-4/p449-brosda/p449-brosda.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-4/p449-brosda/; http://www.acm.org/pubs/toc/Abstracts/tods/49884.html.

Gottlob:1988:PUS

[325] Georg Gottlob, Paolo Paolini, and Roberto Zicari. Properties and update semantics of consistent views. *ACM Transactions on Database Systems*, 13 (4):486–524, December 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-4/p486-gottlob/p486-gottlob.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-4/p486-gottlob/; http://www.acm.org/pubs/toc/Abstracts/tods/50068.html.

Lomet:1988:SBD

[326] David B. Lomet. A simple bounded disorder file organization with good performance. *ACM Transactions on Database Systems*, 13(4):525–551, December 1988. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1988-13-4/p525-lomet/p525-lomet.pdf; http://www.acm.org/pubs/citations/journals/tods/1988-13-4/p525-lomet/; http://www.acm.org/pubs/toc/Abstracts/tods/50067.html.

Freytag:1989:TRQ

[327] Johann Christoph Freytag and Nathan Goodman. On the translation of relational queries into iterative programs. *ACM Transactions on Database Systems*, 14(1):1–27, March 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-1/p1-freytag/p1-freytag.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-1/p1-freytag/.

Ahad:1989:ECP

[328] Rafiul Ahad, K. V. Bapa Rao, and Dennis McLeod. On estimating the cardinality of the projection of a database relation. *ACM Transactions on Database Systems*, 14(1):28–40, March 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-1/p28-ahad/p28-ahad.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-1/p28-ahad/; http://www.acm.org/pubs/toc/Abstracts/tods/62034.html.

Ramesh:1989:VDT

[329] R. Ramesh, A. J. G. Babu, and J. Peter Kincaid. Variable-depth trie index optimization: Theory and experimental results. *ACM Transactions on Database Systems*, 14(1):41–74, March 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1989-14-1/p41-ramesh/p41-ramesh.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-1/p41-ramesh/; http://www.acm.org/pubs/toc/Abstracts/tods/77249.html`.

Gladney:1989:DRD

[330] H. M. Gladney. Data replicas in distributed information services. *ACM Transactions on Database Systems*, 14(1):75–97, March 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1989-14-1/p75-gladney/p75-gladney.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-1/p75-gladney/; http://www.acm.org/pubs/toc/Abstracts/tods/62035.html`. *Reviews*: Computing Reviews, Vol. 30, No. 11, November 1989.

McLeish:1989:FRS

[331] Mary McLeish. Further results on the security of partitioned dynamic statistical databases. *ACM Transactions on Database Systems*, 14(1):98–113, March 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1989-14-1/p98-mcleish/p98-mcleish.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-1/p98-mcleish/; http://www.acm.org/pubs/toc/Abstracts/tods/62036.html`.

Bic:1989:ADD

[332] Lubomir Bic and Robert L. Hartmann. AGM: a dataflow database machine. *ACM Transactions on Database Systems*, 14(1):114–146, March 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1989-14-1/p114-bic/p114-bic.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-1/p114-bic/; http://www.acm.org/pubs/toc/Abstracts/tods/62037.html`.

Yu:1989:FER

[333] C. T. Yu, W. Meng, and S. Park. A framework for effective retrieval. *ACM Transactions on Database Systems*, 14(2):147–167, June 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1989-14-2/p147-yu/p147-yu.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-2/p147-yu/; http://www.acm.org/pubs/toc/Abstracts/tods/63519.html`.

Embley:1989:NNF

[334] David W. Embley. NFQL: The Natural Forms Query Language. *ACM Transactions on Database Systems*, 14(2):168–211, June 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1989-14-2/p168-embley/p168-`

embley.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-2/p168-embley/; http://www.acm.org/pubs/toc/Abstracts/tods/64125.html. Also published in/as: Brigham Young Un., TR-CS-87-6, Mar. 1987.

Atzeni:1989:EOS

[335] Paolo Atzeni and Edward P. F. Chan. Efficient optimization of simple chase join expressions. *ACM Transactions on Database Systems*, 14(2):212–230, June 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-2/p212-atzeni/p212-atzeni.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-2/p212-atzeni/; http://www.acm.org/pubs/toc/Abstracts/tods/63520.html.

Ramakrishna:1989:FOU

[336] M. V. Ramakrishna and Per-Åke Larson. File organization using composite perfect hashing. *ACM Transactions on Database Systems*, 14(2):231–263, June 1, 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-2/p231-ramakrishna/p231-ramakrishna.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-2/p231-ramakrishna/; http://www.acm.org/pubs/toc/Abstracts/tods/63521.html.

ElAbaddi:1989:MAP

[337] Amr El Abaddi and Sam Toueg. Maintaining availability in partitioned replicated databases. *ACM Transactions on Database Systems*, 14(2):264–290, June 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-2/p264-abbadi/p264-abbadi.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-2/p264-abbadi/; http://www.acm.org/pubs/toc/Abstracts/tods/63501.html. Also published in/as: ACM SIGACT-SIGMOD Symp. on Principles of Database Systems, Cambridge MA, Mar. 1986.

Hudson:1989:CSA

[338] Scott E. Hudson and Roger King. Cactis: a self-adaptive, concurrent implementation of an object-oriented database management system. *ACM Transactions on Database Systems*, 14(3):291–321, September 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-3/p291-hudson/p291-hudson.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-3/p291-hudson/; http://www.acm.org/pubs/toc/Abstracts/tods/68013.html.

Sheard:1989:AVD

[339] Tim Sheard and David Stemple. Automatic verification of database transaction safety. *ACM Transactions on Database Systems*, 14(3):322–368, September 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-3/p322-sheard/p322-

sheard.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-3/p322-sheard/; http://www.acm.org/pubs/toc/Abstracts/tods/68014.html. Also published in/as: U. Mass, COINS TR-88-29, Apr. 1988, also TR-86-30, 1986.

Blakeley:1989:UDR

[340] José A. Blakeley, Neil Coburn, and Per-Åke Larson. Updating derived relations: Detecting irrelevant and autonomously computable updates. *ACM Transactions on Database Systems*, 14(3):369–400, September 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-3/p369-blakeley/p369-blakeley.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-3/p369-blakeley/; http://www.acm.org/pubs/toc/Abstracts/tods/68015.html. Also published in/as: Indiana Un., TR-235, Nov. 1987. Also published in [1092].

Mackert:1989:ISU

[341] Lothar F. Mackert and Guy M. Lohman. Index scans using a finite LRU buffer: a validated I/O model. *ACM Transactions on Database Systems*, 14(3):401–424, September 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-3/p401-mackert/p401-mackert.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-3/p401-mackert/; http://www.acm.org/pubs/toc/Abstracts/tods/68016.html. Also published in/as: IBM, TR-RC-4836, Sep. 1985.

Manolopoulos:1989:PTH

[342] Y. Manolopoulos and J. G. Kollias. Performance of a two-headed disk system when serving database queries under the scan policy. *ACM Transactions on Database Systems*, 14(3):425–442, September 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-3/p425-manolopoulos/p425-manolopoulos.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-3/p425-manolopoulos/; http://www.acm.org/pubs/toc/Abstracts/tods/68017.html.

Dreizen:1989:ISR

[343] Howard M. Dreizen and Shi-Kuo Chang. Imprecise schema: a rationale for relations with embedded subrelations. *ACM Transactions on Database Systems*, 14(4):447–479, December 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-4/p447-dreizen/p447-dreizen.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-4/p447-dreizen/; http://www.acm.org/pubs/toc/Abstracts/tods/76903.html.

Motro:1989:IVC

[344] Amihai Motro. Integrity = validity + completeness. *ACM Transactions on Database Systems*, 14(4):480–502, December 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644

(electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-4/p480-motro/p480-motro.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-4/p480-motro/; http://www.acm.org/pubs/toc/Abstracts/tods/76904.html.

Farrag:1989:USK

[345] Abdel Aziz Farrag and M. Tamer Özsu. Using semantic knowledge of transactions to increase concurrency. *ACM Transactions on Database Systems*, 14(4):503–525, December 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-4/p503-farrag/p503-farrag.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-4/p503-farrag/; http://www.acm.org/pubs/toc/Abstracts/tods/76905.html. Accepted. Also published in/as: Un. Alberta, DCS, TR-85-11, Jul. 1985.

Ozsoyoglu:1989:QPT

[346] Gultekin Özsoyoğlu, Victor Matos, and Z. Meral Özsoyoğlu. Query processing techniques in the summary-table-by-example database query language. *ACM Transactions on Database Systems*, 14(4):526–573, December 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-4/p526-ozsoyoglu/p526-ozsoyoglu.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-4/p526-ozsoyoglu/; http://www.acm.org/pubs/toc/Abstracts/tods/76906.html.

Grady:1989:EJO

[347] Danièle Grady and Claude Puech. On the effect of join operations on relation sizes. *ACM Transactions on Database Systems*, 14(4):574–603, December 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-4/p574-grady/p574-grady.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-4/p574-grady/; http://www.acm.org/pubs/toc/Abstracts/tods/76907.html.

Lang:1989:UAB

[348] Sheau-Dong Lang, James R. Driscoll, and Jiann H. Jou. A unified analysis of batched searching of sequential and tree-structured files. *ACM Transactions on Database Systems*, 14 (4):604–618, December 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1989-14-4/p604-lang/p604-lang.pdf; http://www.acm.org/pubs/citations/journals/tods/1989-14-4/p604-lang/; http://www.acm.org/pubs/toc/Abstracts/tods/76908.html.

Motro:1989:QDK

[349] A. Motro and Q. Yuan. Querying database knowledge. *ACM Transactions on Database Systems*, 14(4):??, December 1989. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). Also published in [1094].

Liu:1990:IMI

[350] Ken-Chih C. Liu and Rajshekhar Sunderraman. Indefinite and maybe information in relational databases. *ACM Transactions on Database Systems*, 15(1):1–39, March 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-1/p1-liu/p1-liu.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-1/p1-liu/; http://www.acm.org/pubs/toc/Abstracts/tods/77644.html.

Langerak:1990:VUR

[351] Rom Langerak. View updates in relational databases with an independent scheme. *ACM Transactions on Database Systems*, 15(1):40–66, March 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-1/p40-langerak/p40-langerak.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-1/p40-langerak/; http://www.acm.org/pubs/toc/Abstracts/tods/77645.html.

Whang:1990:QOM

[352] Kyu-Young Y. Whang and Ravi Krishnamurthy. Query optimization in a memory-resident domain relational calculus database system. *ACM Transactions on Database Systems*, 15(1):67–95, March 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-1/p67-whang/p67-whang.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-1/p67-whang/; http://www.acm.org/pubs/toc/Abstracts/tods/77646.html.

Herlihy:1990:AVA

[353] Maurice Herlihy. Apologizing versus asking permission: Optimistic concurrency control for abstract data types. *ACM Transactions on Database Systems*, 15(1):96–124, March 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-1/p96-herlihy/p96-herlihy.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-1/p96-herlihy/; http://www.acm.org/pubs/toc/Abstracts/tods/77647.html.

Wald:1990:EAF

[354] Joseph A. Wald and Paul G. Sorenson. Explaining ambiguity in a formal query language. *ACM Transactions on Database Systems*, 15(2):125–161, June 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-2/p125-wald/p125-wald.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-2/p125-wald/; http://www.acm.org/pubs/toc/Abstracts/tods/78923.html.

Chakravarthy:1990:LBA

[355] Upen S. Chakravarthy, John Grant, and Jack Minker. Logic-based approach to semantic query optimization. *ACM Transactions on Database Systems*, 15(2):162–207, June 1990. CODEN ATDSD3. ISSN

0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-2/p162-chakravarthy/p162-chakravarthy.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-2/p162-chakravarthy/; http://www.acm.org/pubs/toc/Abstracts/tods/78924.html.

Whang:1990:LTP

[356] Kyu-Young Whang, Brad T. Vander-Zanden, and Howard M. Taylor. A linear-time probabilistic counting algorithm for database applications. *ACM Transactions on Database Systems*, 15(2):208–229, June 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-2/p208-whang/p208-whang.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-2/p208-whang/; http://www.acm.org/pubs/toc/Abstracts/tods/78925.html. A probabilistic technique called linear counting, based on hashing, for counting the number of unique values in the presence of duplicates is presented in this paper.

Jajodia:1990:DVA

[357] Sushil Jajodia and David Mutchler. Dynamic voting algorithms for maintaining the consistency of a replicated database. *ACM Transactions on Database Systems*, 15(2):230–280, June 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-2/p230-jajodia/p230-jajodia.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-2/p230-jajodia/; http://www.acm.org/pubs/toc/Abstracts/tods/78926.html.

Dasgupta:1990:FCC

[358] Partha Dasgupta and Zvi M. Kedem. The five-color concurrency control protocol: Non-two-phase locking in general databases. *ACM Transactions on Database Systems*, 15(2):281–307, June 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-2/p281-dasgupta/p281-dasgupta.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-2/p281-dasgupta/; http://www.acm.org/pubs/toc/Abstracts/tods/78927.html.

Moore:1990:DTA

[359] James C. Moore, William B. Richmond, and Andrew B. Whinston. A decision-theoretic approach to information retrieval. *ACM Transactions on Database Systems*, 15(3):311–340, September 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-3/p311-moore/p311-moore.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-3/p311-moore/; http://www.acm.org/pubs/toc/Abstracts/tods/88597.html.

Westland:1990:SOC

[360] J. Christopher Westland. Scaling up output capacity and performance results from information systems prototypes. *ACM Transactions*

on Database Systems, 15(3):341–358, September 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-3/p341-westland/p341-westland.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-3/p341-westland/; http://www.acm.org/pubs/toc/Abstracts/tods/87943.html.

Alonso:1990:DCI

[361] Rafael Alonso, Daniel Barbara, and Héctor García-Molina. Data caching issues in an information retrieval system. *ACM Transactions on Database Systems*, 15(3):359–384, September 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-3/p359-alonso/p359-alonso.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-3/p359-alonso/; http://www.acm.org/pubs/toc/Abstracts/tods/87848.html.

Kifer:1990:CTQ

[362] Michael Kifer and Eliezer L. Lozinskii. On compile-time query optimization in deductive databases by means of static filtering. *ACM Transactions on Database Systems*, 15(3):385–426, September 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-3/p385-kifer/p385-kifer.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-3/p385-kifer/; http://www.acm.org/pubs/toc/Abstracts/tods/87121.html.

Agrawal:1990:DTC

[363] Rakesh Agrawal, Shaul Dar, and H. V. Jagadish. Direct transitive closure algorithms: Design and performance evaluation. *ACM Transactions on Database Systems*, 15(3):427–458, September 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-3/p427-agrawal/p427-agrawal.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-3/p427-agrawal/; http://www.acm.org/pubs/toc/Abstracts/tods/88888.html.

Zhang:1990:NSC

[364] Weining Zhang, Clement T. Yu, and Daniel Troy. Necessary and sufficient conditions to linearize doubly recursive programs in logic databases. *ACM Transactions on Database Systems*, 15(3):459–482, September 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-3/p459-zhang/p459-zhang.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-3/p459-zhang/; http://www.acm.org/pubs/toc/Abstracts/tods/89237.html.

Can:1990:CEC

[365] Fazli Can and Esen A. Ozkarahan. Concepts and effectiveness of the cover-coefficient-based clustering methodology for text databases. *ACM Transactions on Database Systems*, 15(4):

483–517, December 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-4/p483-can/p483-can.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-4/p483-can/; http://www.acm.org/pubs/toc/Abstracts/tods/99938.html.

Nakano:1990:TOR

[366] Ryohei Nakano. Translation with optimization from relational calculus to relational algebra having aggregate functions. *ACM Transactions on Database Systems*, 15(4):518–557, December 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-4/p518-nakano/p518-nakano.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-4/p518-nakano/; http://www.acm.org/pubs/toc/Abstracts/tods/99943.html.

Jagadish:1990:CTM

[367] H. V. Jagadish. A compression technique to materialize transitive closure. *ACM Transactions on Database Systems*, 15(4):558–598, December 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-4/p558-jagadish/p558-jagadish.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-4/p558-jagadish/; http://www.acm.org/pubs/toc/Abstracts/tods/99944.html.

Omiecinski:1990:PAR

[368] Edward Omiecinski and Peter Scheuermann. A parallel algorithm for record clustering. *ACM Transactions on Database Systems*, 15(4):599–624, December 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-4/p599-omiecinski/p599-omiecinski.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-4/p599-omiecinski/; http://www.acm.org/pubs/toc/Abstracts/tods/99947.html.

Lomet:1990:HTM

[369] David B. Lomet and Betty Salzberg. The hB-Tree: a multiattribute indexing method with good guaranteed performance. *ACM Transactions on Database Systems*, 15(4):625–658, December 1990. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1990-15-4/p625-lomet/p625-lomet.pdf; http://www.acm.org/pubs/citations/journals/tods/1990-15-4/p625-lomet/; http://www.acm.org/pubs/toc/Abstracts/tods/99949.html.

Abiteboul:1991:RBL

[370] Serge Abiteboul and Stéphane Grumbach. A rule-based language with functions and sets. *ACM Transactions on Database Systems*, 16(1):1–30, March 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-1/p1-abiteboul/p1-

abiteboul.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-1/p1-abiteboul/; http://www.acm.org/pubs/toc/Abstracts/tods/103141.html.

Mendelzon:1991:FDH

[371] Alberto O. Mendelzon and Peter T. Wood. Functional dependencies in Horn clause queries. *ACM Transactions on Database Systems*, 16(1):31–55, March 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-1/p31-mendelzon/p31-mendelzon.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-1/p31-mendelzon/; http://www.acm.org/pubs/toc/Abstracts/tods/103142.html.

Meghini:1991:COF

[372] C. Meghini and C. Thanos. The complexity of operations on a fragmented relation. *ACM Transactions on Database Systems*, 16(1):56–87, March 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-1/p56-meghini/p56-meghini.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-1/p56-meghini/; http://www.acm.org/pubs/toc/Abstracts/tods/103143.html.

Rabitti:1991:MAN

[373] Fausto Rabitti, Elisa Bertino, Won Kim, and Darrell Woelk. A model of authorization for next-generation database systems. *ACM Transactions on Database Systems*, 16(1):88–131, March 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-1/p88-rabitti/p88-rabitti.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-1/p88-rabitti/; http://www.acm.org/pubs/toc/Abstracts/tods/103144.html.

Weikum:1991:PRS

[374] Gerhard Weikum. Principles and realization strategies of multilevel transaction management. *ACM Transactions on Database Systems*, 16(1):132–180, March 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-1/p132-weikum/p132-weikum.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-1/p132-weikum/; http://www.acm.org/pubs/toc/Abstracts/tods/103145.html.

Wolfson:1991:MPR

[375] Ouri Wolfson and Amir Milo. The multicast policy and its relationship to replicated data placement. *ACM Transactions on Database Systems*, 16 (1):181–205, March 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-1/p181-wolfson/p181-wolfson.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-1/p181-wolfson/; http://www.acm.org/pubs/toc/Abstracts/tods/103146.html. See corrigendum in [388].

Casanova:1991:STM

[376] M. A. Casanova, A. L. Furtado, and L. Tucherman. A software tool for modular database design. *ACM Transactions on Database Systems*, 16(2):209–234, June 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-2/p209-casanova/p209-casanova.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-2/p209-casanova/; http://www.acm.org/pubs/toc/Abstracts/tods/103711.html.

VanGelder:1991:STR

[377] Allen Van Gelder and Rodney W. Topor. Safety and translation of relational calculus queries. *ACM Transactions on Database Systems*, 16(2):235–278, June 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-2/p235-van_gelder/p235-van_gelder.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-2/p235-van_gelder/; http://www.acm.org/pubs/toc/Abstracts/tods/103712.html.

Shasha:1991:OEQ

[378] Dennis Shasha and Tsong-Li L. Wang. Optimizing equijoin queries in distributed databases where relations are hash-partitioned. *ACM Transactions on Database Systems*, 16(2):279–308, June 1, 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-2/p279-shasha/p279-shasha.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-2/p279-shasha/; http://www.acm.org/pubs/toc/Abstracts/tods/103713.html.

Cesarini:1991:DHM

[379] F. Cesarini and G. Soda. A dynamic hash method with signature. *ACM Transactions on Database Systems*, 16(2):309–337, June 1, 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-2/p309-cesarini/p309-cesarini.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-2/p309-cesarini/; http://www.acm.org/pubs/toc/Abstracts/tods/103714.html.

King:1991:MRB

[380] Richard P. King, Nagui Halim, Héctor García-Molina, and Christos A. Polyzois. Management of a remote backup copy for disaster recovery. *ACM Transactions on Database Systems*, 16(2):338–368, June 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-2/p338-king/p338-king.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-2/p338-king/; http://www.acm.org/pubs/toc/Abstracts/tods/103715.html.

Gogolla:1991:TSV

[381] Martin Gogolla and Uwe Hohenstein. Towards a semantic view of an extended entity-relationship model. *ACM Transactions on Database*

Systems, 16(3):369–416, September 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-3/p369-gogolla/p369-gogolla.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-3/p369-gogolla/; http://www.acm.org/pubs/toc/Abstracts/tods/111200.html.

Sciore:1991:UAS

[382] Edward Sciore. Using annotations to support multiple kinds of versioning in an object- oriented database system. *ACM Transactions on Database Systems*, 16(3):417–438, September 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-3/p417-sciore/p417-sciore.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-3/p417-sciore/; http://www.acm.org/pubs/toc/Abstracts/tods/111205.html.

Karabeg:1991:SRC

[383] Dino Karabeg and Victor Vianu. Simplification rules and complete axiomatization for relational update transactions. *ACM Transactions on Database Systems*, 16(3):439–475, September 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-3/p439-karabeg/p439-karabeg.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-3/p439-karabeg/; http://www.acm.org/pubs/toc/Abstracts/tods/111208.html.

Yu:1991:RTR

[384] Philip S. Yu, Avraham Leff, and Yann-Hang Lee. On robust transaction routing and load sharing. *ACM Transactions on Database Systems*, 16(3):476–512, September 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-3/p476-yu/p476-yu.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-3/p476-yu/; http://www.acm.org/pubs/toc/Abstracts/tods/111210.html.

Negri:1991:FSS

[385] M. Negri, G. Pelagatti, and L. Sbattella. Formal semantics of SQL queries. *ACM Transactions on Database Systems*, 16(3):513–534, September 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-3/p513-negri/p513-negri.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-3/p513-negri/; http://www.acm.org/pubs/toc/Abstracts/tods/111212.html.

Roussopoulos:1991:IAM

[386] Nicholas Roussopoulos. An incremental access method for ViewCache: Concept, algorithms, and cost analysis. *ACM Transactions on Database Systems*, 16(3):535–563, September 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/

1991-16-3/p535-roussopoulos/p535-roussopoulos.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-3/p535-roussopoulos/; http://www.acm.org/pubs/toc/Abstracts/tods/111215.html.

Mukkamala:1991:NEC

[387] Ravi Mukkamala and Sushil Jajodia. A note on estimating the cardinality of the projection of a database relation. *ACM Transactions on Database Systems*, 16(3):564–566, September 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-3/p564-mukkamala/p564-mukkamala.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-3/p564-mukkamala/; http://www.acm.org/pubs/toc/Abstracts/tods/111218.html.

Wolfson:1991:CMP

[388] O. Wolfson and A. Milo. Corrigendum: "The Multicast Policy and its Relationship to Replicated Data Placement" [ACM Trans. Database Systems **16** (1991), no. 1, 181–205, by O. Wolfson and A. Milo] (MR 92a:68042). *ACM Transactions on Database Systems*, 16 (3):567, September 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). See [375].

Hernandez:1991:CTM

[389] Héctor J. Hernández and Edward P. F. Chan. Constant-time-maintainable BCNF database schemes. *ACM Transactions on Database Systems*, 16(4): 571–599, December 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-4/p571-hernandez/p571-hernandez.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-4/p571-hernandez/; http://www.acm.org/pubs/toc/Abstracts/tods/115301.html.

Hou:1991:SEA

[390] Wen-Chi Hou and Gultekin Özsoyoğlu. Statistical estimators for aggregate relational algebra queries. *ACM Transactions on Database Systems*, 16(4): 600–654, December 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-4/p600-hou/p600-hou.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-4/p600-hou/; http://www.acm.org/pubs/toc/Abstracts/tods/115300.html.

Negri:1991:DJN

[391] M. Negri and G. Pelagatti. Distributive join: a new algorithm for joining relations. *ACM Transactions on Database Systems*, 16(4):655–669, December 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-4/p655-negri/p655-negri.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-4/p655-negri/; http://www.acm.org/pubs/toc/Abstracts/tods/115299.html.

Moerkotte:1991:RCC

[392] Guido Moerkotte and Peter C. Lockemann. Reactive consistency control

in deductive databases. *ACM Transactions on Database Systems*, 16(4): 670–702, December 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-4/p670-moerkotte/p670-moerkotte.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-4/p670-moerkotte/; http://www.acm.org/pubs/toc/Abstracts/tods/115298.html.

Carey:1991:CDT

[393] Michael J. Carey and Miron Livny. Conflict detection tradeoffs for replicated data. *ACM Transactions on Database Systems*, 16(4):703–746, December 1991. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1991-16-4/p703-carey/p703-carey.pdf; http://www.acm.org/pubs/citations/journals/tods/1991-16-4/p703-carey/; http://www.acm.org/pubs/toc/Abstracts/tods/115289.html.

Cattell:1992:OOB

[394] R. G. G. Cattell and J. Skeen. Object operations benchmark. *ACM Transactions on Database Systems*, 17(1):1–31, March 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-1/p1-cattell/p1-cattell.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-1/p1-cattell/; http://www.acm.org/pubs/toc/Abstracts/tods/128766.html.

Weddell:1992:RAF

[395] Grant E. Weddell. Reasoning about functional dependencies generalized for semantic data models. *ACM Transactions on Database Systems*, 17(1):32–64, March 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-1/p32-weddell/p32-weddell.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-1/p32-weddell/; http://www.acm.org/pubs/toc/Abstracts/tods/128767.html.

Paredaens:1992:CNA

[396] Jan Paredaens and Dirk Van Gucht. Converting nested algebra expressions into flat algebra expressions. *ACM Transactions on Database Systems*, 17(1):65–93, March 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-1/p65-paredaens/p65-paredaens.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-1/p65-paredaens/; http://www.acm.org/pubs/toc/Abstracts/tods/128768.html.

Mohan:1992:ATR

[397] C. Mohan, Don Haderle, Bruce Lindsay, Hamid Pirahesh, and Peter Schwarz. ARIES: a transaction recovery method supporting fine-granularity locking and partial rollbacks using write-ahead logging. *ACM Transactions on Database Systems*, 17(1):94–162, March 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.

org/pubs/articles/journals/tods/1992-17-1/p94-mohan/p94-mohan.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-1/p94-mohan/; http://www.acm.org/pubs/toc/Abstracts/tods/128770.html. Also published in/as: IBM Almaden Res. Ctr, Res. R. No. RJ-6649, Jan. 1989, 45 pp.

Badrinath:1992:SBC

[398] B. R. Badrinath and Krithi Ramamritham. Semantics-based concurrency control: Beyond commutativity. *ACM Transactions on Database Systems*, 17(1):163–199, March 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-1/p163-badrinath/p163-badrinath.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-1/p163-badrinath/; http://www.acm.org/pubs/toc/Abstracts/tods/128771.html.

Wang:1992:CTM

[399] Ke Wang and Marc H. Graham. Constant-time maintainability: a generalization of independence. *ACM Transactions on Database Systems*, 17(2):201–246, June 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-2/p201-wang/p201-wang.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-2/p201-wang/; http://www.acm.org/pubs/toc/Abstracts/tods/128904.html.

Becker:1992:RBO

[400] Ludger Becker and Ralf Hartmut Güting. Rule-based optimization and query processing in an extensible geometric database system. *ACM Transactions on Database Systems*, 17(2):247–303, June 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-2/p247-becker/p247-becker.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-2/p247-becker/; http://www.acm.org/pubs/toc/Abstracts/tods/128905.html.

Franaszek:1992:CCH

[401] Peter A. Franaszek, John T. Robinson, and Alexander Thomasian. Concurrency control for high contention environments. *ACM Transactions on Database Systems*, 17(2):304–345, June 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-2/p304-franaszek/p304-franaszek.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-2/p304-franaszek/; http://www.acm.org/pubs/toc/Abstracts/tods/128906.html.

Leng:1992:OWA

[402] Chun-Wu Roger Leng and Dik Lun Lee. Optimal weight assignment for signature generation. *ACM Transactions on Database Systems*, 17(2):346–373, June 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/

1992-17-2/p346-leng/p346-leng.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-2/p346-leng/; http://www.acm.org/pubs/toc/Abstracts/tods/128907.html.

Tansel:1992:MRH

[403] Abdullah U. Tansel and Lucy Garnett. On M. A. Roth, H. F. Korth and A. Silberschatz: "Extended Algebra and Calculus for Nested Relational Databases" [ACM Trans. Database Systems **13** (1988), no. 4, 389–417]. *ACM Transactions on Database Systems*, 17(2):374–383, June 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-2/p374-tansel/p374-tansel.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-2/p374-tansel/; http://www.acm.org/pubs/toc/Abstracts/tods/128908.html. See [322].

Bergamaschi:1992:TRC

[404] Sonia Bergamaschi and Claudio Sartori. On taxonomic reasoning in conceptual design. *ACM Transactions on Database Systems*, 17(3):385–422, September 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-3/p385-bergamaschi/p385-bergamaschi.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-3/p385-bergamaschi/; http://www.acm.org/pubs/toc/Abstracts/tods/132272.html.

Markowitz:1992:REE

[405] Victor M. Markowitz and Arie Shoshani. Representing extended entity-relationship structures in relational databases: a modular approach. *ACM Transactions on Database Systems*, 17(3):423–464, September 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-3/p423-markowitz/p423-markowitz.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-3/p423-markowitz/; http://www.acm.org/pubs/toc/Abstracts/tods/132273.html.

Date:1992:SCG

[406] C. J. Date and Ronald Fagin. Simple conditions for guaranteeing higher normal forms in relational databases. *ACM Transactions on Database Systems*, 17(3):465–476, September 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-3/p465-date/p465-date.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-3/p465-date/; http://www.acm.org/pubs/toc/Abstracts/tods/132274.html.

Hsu:1992:PEC

[407] Meichun Hsu and Bin Zhang. Performance evaluation of cautious waiting. *ACM Transactions on Database Systems*, 17(3):477–512, September 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-3/p477-hsu/p477-hsu.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-3/p477-hsu/

; http://www.acm.org/pubs/toc/Abstracts/tods/132275.html.

Abbott:1992:SRT

[408] Robert K. Abbott and Héctor García-Molina. Scheduling real-time transactions: a performance evaluation. *ACM Transactions on Database Systems*, 17(3):513–560, September 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-3/p513-abbott/p513-abbott.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-3/p513-abbott/; http://www.acm.org/pubs/toc/Abstracts/tods/132276.html.

Siegel:1992:MAR

[409] Michael Siegel, Edward Sciore, and Sharon Salveter. A method for automatic rule derivation to support semantic query optimization. *ACM Transactions on Database Systems*, 17(4):563–600, December 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-4/p563-siegel/p563-siegel.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-4/p563-siegel/; http://www.acm.org/pubs/toc/Abstracts/tods/146932.html.

Kamel:1992:IDC

[410] Nabil Kamel and Roger King. Intelligent database caching through the use of page answers and page traces. *ACM Transactions on Database Systems*, 17(4):601–646, December 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-4/p601-kamel/p601-kamel.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-4/p601-kamel/; http://www.acm.org/pubs/toc/Abstracts/tods/146933.html.

Maiocchi:1992:ADT

[411] Roberto Maiocchi, Barbara Pernici, and Federico Barbic. Automatic deduction of temporal information. *ACM Transactions on Database Systems*, 17(4):647–688, December 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-4/p647-maiocchi/p647-maiocchi.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-4/p647-maiocchi/; http://www.acm.org/pubs/toc/Abstracts/tods/146934.html.

Agrawal:1992:GTQ

[412] D. Agrawal and A. El Abbadi. The generalized tree quorum protocol: An efficient approach for managing replicated data. *ACM Transactions on Database Systems*, 17(4):689–717, December 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1992-17-4/p689-agrawal/p689-agrawal.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-4/p689-agrawal/; http://www.acm.org/pubs/toc/Abstracts/tods/146935.html.

Atzeni:1992:URD

[413] Paolo Atzeni and Riccardo Torlone. Updating relational databases through weak instance interfaces. *ACM Transactions on Database Systems*, 17(4): 718–745, December 1992. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1992-17-4/p718-atzeni/p718-atzeni.pdf; http://www.acm.org/pubs/citations/journals/tods/1992-17-4/p718-atzeni/; http://www.acm.org/pubs/toc/Abstracts/tods/146936.html`.

Ishikawa:1993:MLI

[414] Hiroshi Ishikawa, Fumio Suzuki, Fumihiko Kozakura, Akifumi Makinouchi, Mika Miyagishima, Yoshio Izumida, Masaaki Aoshima, and Yasuo Yamane. The model, language, and implementation of an object-oriented multimedia knowledge base management system. *ACM Transactions on Database Systems*, 18(1):1–50, March 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1993-18-1/p1-ishikawa/p1-ishikawa.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-1/p1-ishikawa/; http://www.acm.org/pubs/toc/Abstracts/tods/151285.html`.

Johnson:1993:PCB

[415] Theodore Johnson and Dennis Shasha. The performance of current B-Tree algorithms. *ACM Transactions on Database Systems*, 18(1):51–101, March 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1993-18-1/p51-johnson/p51-johnson.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-1/p51-johnson/; http://www.acm.org/pubs/toc/Abstracts/tods/151286.html`. "Current" in the title should be "Concurrent".

Kumar:1993:CAT

[416] Akhil Kumar and Arie Segev. Cost and availability tradeoffs in replicated data concurrency control. *ACM Transactions on Database Systems*, 18(1):102–131, March 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1993-18-1/p102-kumar/p102-kumar.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-1/p102-kumar/; http://www.acm.org/pubs/toc/Abstracts/tods/151287.html`.

Abdel-Ghaffar:1993:ODA

[417] Khaled A. S. Abdel-Ghaffar and Amr El Abbadi. Optimal disk allocation for partial match queries. *ACM Transactions on Database Systems*, 18(1):132–156, March 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1993-18-1/p132-abdel-ghaffar/p132-abdel-ghaffar.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-1/p132-abdel-ghaffar/; http://www.acm.org/pubs/toc/Abstracts/tods/151288.html`.

Matsliach:1993:PAF

[418] Gabriel Matsliach. Performance analysis of file organizations that use multibucket data leaves with partial expansions. *ACM Transactions on Database Systems*, 18(1):157–180, March 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-1/p157-matsliach/p157-matsliach.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-1/p157-matsliach/; http://www.acm.org/pubs/toc/Abstracts/tods/151289.html.

Chomicki:1993:FRI

[419] Jan Chomicki and Tomasz Imieliński. Finite representation of infinite query answers. *ACM Transactions on Database Systems*, 18(2):181–223, June 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-2/p181-chomicki/p181-chomicki.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-2/p181-chomicki/; http://www.acm.org/pubs/toc/Abstracts/tods/151635.html.

Hou:1993:PTC

[420] Wen-Chi Hou and Gultekin Özsoyoğlu. Processing time-constrained aggregate queries in CASE-DB. *ACM Transactions on Database Systems*, 18(2):224–261, June 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-2/p224-hou/p224-hou.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-2/p224-hou/; http://www.acm.org/pubs/toc/Abstracts/tods/151636.html.

Drenick:1993:SQO

[421] P. E. Drenick and E. J. Smith. Stochastic query optimization in distributed databases. *ACM Transactions on Database Systems*, 18(2):262–288, June 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-2/p262-drenick/p262-drenick.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-2/p262-drenick/; http://www.acm.org/pubs/toc/Abstracts/tods/151637.html.

Rothermel:1993:OCP

[422] Kurt Rothermel and Stefan Pappe. Open commit protocols tolerating commission failures. *ACM Transactions on Database Systems*, 18(2):289–332, June 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-2/p289-rothermel/p289-rothermel.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-2/p289-rothermel/; http://www.acm.org/pubs/toc/Abstracts/tods/151638.html.

Rahm:1993:EPE

[423] Erhard Rahm. Empirical performance evaluation of concurrency and coherency control protocols for database sharing systems. *ACM Transactions on Database Systems*, 18(2):333–377, June 1993. CODEN ATDSD3.

ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-2/p333-rahm/p333-rahm.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-2/p333-rahm/; http://www.acm.org/pubs/toc/Abstracts/tods/151639.html.

Kuper:1993:LDM

[424] Gabriel M. Kuper and Moshe Y. Vardi. The logical data model. *ACM Transactions on Database Systems*, 18(3): 379–413, September 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-3/p379-kuper/p379-kuper.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-3/p379-kuper/; http://www.acm.org/pubs/toc/Abstracts/tods/155274.html.

Levene:1993:SNE

[425] Mark Levene and George Loizou. Semantics for null extended nested relations. *ACM Transactions on Database Systems*, 18(3):414–459, September 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-3/p414-levene/p414-levene.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-3/p414-levene/; http://www.acm.org/pubs/toc/Abstracts/tods/155275.html.

Agrawal:1993:COS

[426] Divyakant Agrawal, Amr El Abbadi, and Ambuj K. Singh. Consistency and orderability: Semantics-based correctness criteria for databases. *ACM Transactions on Database Systems*, 18 (3):460–486, September 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-3/p460-agrawal/p460-agrawal.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-3/p460-agrawal/; http://www.acm.org/pubs/toc/Abstracts/tods/155276.html.

Sagiv:1993:SQT

[427] Yehoshua Sagiv and Oded Shmueli. Solving queries by tree projections. *ACM Transactions on Database Systems*, 18(3):487–511, September 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-3/p487-sagiv/p487-sagiv.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-3/p487-sagiv/; http://www.acm.org/pubs/toc/Abstracts/tods/155277.html.

Ioannidis:1993:TCA

[428] Yannis Ioannidis, Raghu Ramakrishnan, and Linda Winger. Transitive closure algorithms based on graph traversal. *ACM Transactions on Database Systems*, 18(3):512–576, September 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-3/p512-ioannidis/p512-ioannidis.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-3/p512-ioannidis/; http://www.

acm.org/pubs/toc/Abstracts/tods/155273.html.

Thomasian:1993:TPL

[429] Alexander Thomasian. Two-phase locking performance and its thrashing behavior. *ACM Transactions on Database Systems*, 18(4):579–625, December 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-4/p579-thomasian/p579-thomasian.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-4/p579-thomasian/; http://www.acm.org/pubs/toc/Abstracts/tods/169720.html.

Qian:1993:DSD

[430] Xiaolei Qian. The deductive synthesis of database transactions. *ACM Transactions on Database Systems*, 18 (4):626–677, December 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-4/p626-qian/p626-qian.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-4/p626-qian/; http://www.acm.org/pubs/toc/Abstracts/tods/169716.html.

Malvestuto:1993:USA

[431] Francesco M. Malvestuto. A universal-scheme approach to statistical databases containing homogeneous summary tables. *ACM Transactions on Database Systems*, 18(4):678–708, December 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-4/p678-malvestuto/p678-malvestuto.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-4/p678-malvestuto/; http://www.acm.org/pubs/toc/Abstracts/tods/169712.html.

Ioannidis:1993:OHL

[432] Yannis E. Ioannidis and Stavros Christodoulakis. Optimal histograms for limiting worst-case error propagation in the size of join results. *ACM Transactions on Database Systems*, 18(4):709–748, December 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1993-18-4/p709-ioannidis/p709-ioannidis.pdf; http://www.acm.org/pubs/citations/journals/tods/1993-18-4/p709-ioannidis/; http://www.acm.org/pubs/toc/Abstracts/tods/169708.html.

Anonymous:1993:AI

[433] Anonymous. 1993 author index. *ACM Transactions on Database Systems*, 18 (4):749–750, December 1993. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kim:1994:CS

[434] Won Kim. Charter and scope. *ACM Transactions on Database Systems*, 19(1):1–??, March 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Olivier:1994:TSO

[435] Martin S. Olivier and Sebastiaan H. von Solms. A taxonomy for secure object-oriented

databases. *ACM Transactions on Database Systems*, 19(1):3–46, March 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-1/p3-olivier/p3-olivier.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-1/p3-olivier/; http://www.acm.org/pubs/toc/Abstracts/tods/174640.html.

Tendick:1994:MRP

[436] Patrick Tendick and Norman Matloff. A modified random perturbation method for database security. *ACM Transactions on Database Systems*, 19(1):47–63, March 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-1/p47-tendick/p47-tendick.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-1/p47-tendick/; http://www.acm.org/pubs/toc/Abstracts/tods/174641.html.

Clifford:1994:CHR

[437] James Clifford, Albert Croker, and Alexander Tuzhilin. On completeness of historical relational query languages. *ACM Transactions on Database Systems*, 19(1):64–116, March 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-1/p64-clifford/p64-clifford.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-1/p64-clifford/; http://www.acm.org/pubs/toc/Abstracts/tods/174642.html.

Salem:1994:AL

[438] Kenneth Salem, Héctor García-Molina, and Jeannie Shands. Altruistic locking. *ACM Transactions on Database Systems*, 19(1):117–165, March 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-1/p117-salem/p117-salem.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-1/p117-salem/; http://www.acm.org/pubs/toc/Abstracts/tods/174639.html.

Rosenthal:1994:TTR

[439] Arnon Rosenthal and David Reiner. Tools and transformations — rigorous and otherwise — for practical database design. *ACM Transactions on Database Systems*, 19(2):167–211, June 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-2/p167-rosenthal/p167-rosenthal.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-2/p167-rosenthal/; http://www.acm.org/pubs/toc/Abstracts/tods/176568.html.

Bright:1994:ARS

[440] M. W. Bright, A. R. Hurson, and S. Pakzad. Automated resolution of semantic heterogeneity in multidatabases. *ACM Transactions on Database Systems*, 19(2):212–253, June 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644

(electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-2/p212-bright/p212-bright.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-2/p212-bright/; http://www.acm.org/pubs/toc/Abstracts/tods/176569.html.

Sciore:1994:USV

[441] Edward Sciore, Michael Siegel, and Arnon Rosenthal. Using semantic values to facilitate interoperability among heterogeneous information systems. *ACM Transactions on Database Systems*, 19(2):254–290, June 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-2/p254-sciore/p254-sciore.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-2/p254-sciore/; http://www.acm.org/pubs/toc/Abstracts/tods/176570.html.

Subrahmanian:1994:AKB

[442] V. S. Subrahmanian. Amalgamating knowledge bases. *ACM Transactions on Database Systems*, 19(2):291–331, June 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-2/p291-subrahmanian/p291-subrahmanian.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-2/p291-subrahmanian/; http://www.acm.org/pubs/toc/Abstracts/tods/176571.html.

Yan:1994:ISS

[443] Tak W. Yan and Héctor García-Molina. Index structures for selective dissemination of information under the Boolean model. *ACM Transactions on Database Systems*, 19(2):332–364, June 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-2/p332-yan/p332-yan.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-2/p332-yan/; http://www.acm.org/pubs/toc/Abstracts/tods/176573.html.

Ceri:1994:AGP

[444] Stefano Ceri, Piero Fraternali, Stefano Paraboschi, and Letizia Tanca. Automatic generation of production rules for integrity maintenance. *ACM Transactions on Database Systems*, 19(3):367–422, September 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-3/p367-ceri/p367-ceri.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-3/p367-ceri/; http://www.acm.org/pubs/toc/Abstracts/tods/185828.html.

Polyzois:1994:ERB

[445] Christos A. Polyzois and Héctor García-Molina. Evaluation of remote backup algorithms for transaction-processing systems. *ACM Transactions on Database Systems*, 19(3):423–449, September 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-3/p423-polyzois/p423-polyzois.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-

3/p423-polyzois/; http://www.acm.org/pubs/toc/Abstracts/tods/185836.html.

Chrysanthis:1994:SET

[446] Panos K. Chrysanthis and Krithi Ramamritham. Synthesis of extended transaction models using ACTA. *ACM Transactions on Database Systems*, 19(3):450–491, September 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-3/p450-chrysanthis/p450-chrysanthis.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-3/p450-chrysanthis/; http://www.acm.org/pubs/toc/Abstracts/tods/185843.html.

Korth:1994:FAC

[447] Henry F. Korth and Greg Speegle. Formal aspects of concurrency control in long-duration transaction systems using the NT/PV model. *ACM Transactions on Database Systems*, 19(3):492–535, September 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-3/p492-korth/p492-korth.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-3/p492-korth/; http://www.acm.org/pubs/toc/Abstracts/tods/185854.html.

Goldman:1994:QCN

[448] Kenneth J. Goldman and Nancy Lynch. Quorum consensus in nested-transaction systems. *ACM Transactions on Database Systems*, 19(4):537–585, December 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-4/p537-goldman/p537-goldman.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-4/p537-goldman/; http://www.acm.org/pubs/toc/Abstracts/tods/195666.html.

Krishnakumar:1994:BIT

[449] Narayanan Krishnakumar and Arthur J. Bernstein. Bounded ignorance: a technique for increasing concurrency in a replicated system. *ACM Transactions on Database Systems*, 19(4):586–625, December 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-4/p586-krishnakumar/p586-krishnakumar.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-4/p586-krishnakumar/; http://www.acm.org/pubs/toc/Abstracts/tods/195670.html.

Winslett:1994:FQL

[450] Marianne Winslett, Kenneth Smith, and Xiaolei Qian. Formal query languages for secure relational databases. *ACM Transactions on Database Systems*, 19(4):626–662, December 1994. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1994-19-4/p626-winslett/p626-winslett.pdf; http://www.acm.org/pubs/citations/journals/tods/1994-19-4/p626-winslett/; http://www.acm.org/pubs/toc/Abstracts/tods/195675.html.

Kim:1995:CS

[451] Won Kim. Charter and scope. *ACM Transactions on Database Systems*, 20(1):1–2, March 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Aiken:1995:SAT

[452] Alexander Aiken, Joseph M. Hellerstein, and Jennifer Widom. Static analysis techniques for predicting the behavior of active database rules. *ACM Transactions on Database Systems*, 20(1):3–41, March 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-1/p3-aiken/p3-aiken.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-1/p3-aiken/; http://www.acm.org/pubs/toc/Abstracts/tods/202107.html.

Chen:1995:DUR

[453] Weidong Chen. Declarative updates of relational databases. *ACM Transactions on Database Systems*, 20(1):42–70, March 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-1/p42-chen/p42-chen.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-1/p42-chen/; http://www.acm.org/pubs/toc/Abstracts/tods/202110.html.

Jagadish:1995:IDM

[454] H. V. Jagadish. The INCINERATE data model. *ACM Transactions on Database Systems*, 20(1):71–110, March 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-1/p71-jagadish/p71-jagadish.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-1/p71-jagadish/; http://www.acm.org/pubs/toc/Abstracts/tods/202113.html.

Baekgaard:1995:ICN

[455] Lars Baekgaard and Leo Mark. Incremental computation of nested relational query expressions. *ACM Transactions on Database Systems*, 20(2):111–148, June 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-2/p111-baekgaard/p111-baekgaard.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-2/p111-baekgaard/; http://www.acm.org/pubs/toc/Abstracts/tods/210198.html.

Chomicki:1995:ECT

[456] Jan Chomicki. Efficient checking of temporal integrity constraints using bounded history encoding. *ACM Transactions on Database Systems*, 20(2):149–186, June 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-2/p149-chomicki/p149-chomicki.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-2/p149-chomicki/; http://www.acm.org/pubs/toc/Abstracts/tods/210200.html.

Graefe:1995:FAU

[457] Goetz Graefe and Richard L. Cole. Fast algorithms for universal quantification

in large databases. *ACM Transactions on Database Systems*, 20(2):187–236, June 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-2/p187-graefe/p187-graefe.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-2/p187-graefe/; http://www.acm.org/pubs/toc/Abstracts/tods/210202.html.

Chen:1995:QED

[458] Weidong Chen. Query evaluation in deductive databases with alternating fixpoint semantics. *ACM Transactions on Database Systems*, 20(3):239–287, September 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-3/p239-chen/p239-chen.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-3/p239-chen/; http://www.acm.org/pubs/toc/Abstracts/tods/211416.html.

Ioannidis:1995:CCQ

[459] Yannis E. Ioannidis and Raghu Ramakrishnan. Containment of conjunctive queries: Beyond relations as sets. *ACM Transactions on Database Systems*, 20(3):288–324, September 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-3/p288-ioannidis/p288-ioannidis.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-3/p288-ioannidis/; http://www.acm.org/pubs/toc/Abstracts/tods/211419.html.

Shasha:1995:TCA

[460] Dennis Shasha, François Llirbat, Eric Simon, and Patrick Valduriez. Transaction chopping: Algorithms and performance studies. *ACM Transactions on Database Systems*, 20(3):325–363, September 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-3/p325-shasha/p325-shasha.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-3/p325-shasha/; http://www.acm.org/pubs/toc/Abstracts/tods/211427.html.

Chen:1995:EML

[461] I.-Min A. Chen, Richard Hull, and Dennis McLeod. An execution model for limited ambiguity rules and its application to derived data update. *ACM Transactions on Database Systems*, 20(4):365–413, December 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-4/p365-chen/p365-chen.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-4/p365-chen/; http://www.acm.org/pubs/toc/Abstracts/tods/219039.html.

Fraternali:1995:SAD

[462] Piero Fraternali and Letizia Tanca. A structured approach for the definition of the semantics of active databases. *ACM Transactions on Database Systems*, 20(4):414–471, December 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.

org/pubs/articles/journals/tods/1995-20-4/p414-fraternali/p414-fraternali.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-4/p414-fraternali/; http://www.acm.org/pubs/toc/Abstracts/tods/219042.html.

Srivastava:1995:SOD

[463] Divesh Srivastava, S. Sudarshan, Raghu Ramakrishnan, and Jeffrey F. Naughton. Space optimization in deductive databases. *ACM Transactions on Database Systems*, 20(4):472–516, December 1995. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1995-20-4/p472-srivastava/p472-srivastava.pdf; http://www.acm.org/pubs/citations/journals/tods/1995-20-4/p472-srivastava/; http://www.acm.org/pubs/toc/Abstracts/tods/219056.html.

Baralis:1996:MTA

[464] Elena Baralis, Stefano Ceri, and Stefano Paraboschi. Modularization techniques for active rules design. *ACM Transactions on Database Systems*, 21(1):1–29, March 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-1/p1-baralis/p1-baralis.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-1/p1-baralis/; http://www.acm.org/pubs/toc/Abstracts/tods/227605.html.

Buneman:1996:PTI

[465] Peter Buneman and Atsushi Ohori. Polymorphism and type inference in database programming. *ACM Transactions on Database Systems*, 21(1):30–76, March 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-1/p30-buneman/p30-buneman.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-1/p30-buneman/; http://www.acm.org/pubs/toc/Abstracts/tods/227609.html.

Mok:1996:NFP

[466] Wai Yin Mok, Yiu-Kai Ng, and David W. Embley. A normal form for precisely characterizing redundancy in nested relations. *ACM Transactions on Database Systems*, 21(1):77–106, March 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-1/p77-mok/p77-mok.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-1/p77-mok/; http://www.acm.org/pubs/toc/Abstracts/tods/227612.html.

Mumick:1996:MC

[467] Inderpal Singh Mumick, Sheldon J. Finkelstein, Hamid Pirahesh, and Raghu Ramakrishnan. Magic conditions. *ACM Transactions on Database Systems*, 21(1):107–155, March 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-1/p107-mumick/p107-mumick.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-1/p107-mumick/; http://www.

acm.org/pubs/toc/Abstracts/tods/227624.html.

Liu:1996:BBS

[468] Ling Liu and Robert Meersman. The building blocks for specifying communication behavior of complex objects: An activity-driven approach. *ACM Transactions on Database Systems*, 21(2):157–207, June 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-2/p157-liu/p157-liu.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-2/p157-liu/; http://www.acm.org/pubs/toc/Abstracts/tods/232622.html.

Ross:1996:TRE

[469] Kenneth A. Ross. Tail recursion elimination in deductive databases. *ACM Transactions on Database Systems*, 21(2):208–237, June 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-2/p208-ross/p208-ross.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-2/p208-ross/; http://www.acm.org/pubs/toc/Abstracts/tods/232628.html.

Bell:1996:IDD

[470] Colin Bell, Anil Nerode, Raymond T. Ng, and V. S. Subrahmanian. Implementing deductive databases by mixed integer programming. *ACM Transactions on Database Systems*, 21(2):238–269, June 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-2/p238-bell/p238-bell.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-2/p238-bell/; http://www.acm.org/pubs/toc/Abstracts/tods/232691.html.

Guo:1996:SSI

[471] Sha Guo, Wei Sun, and Mark A. Weiss. Solving satisfiability and implication problems in database systems. *ACM Transactions on Database Systems*, 21(2):270–293, June 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-2/p270-guo/p270-guo.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-2/p270-guo/; http://www.acm.org/pubs/toc/Abstracts/tods/232692.html.

Ciaccia:1996:DKB

[472] Paolo Ciaccia, Paolo Tiberio, and Pavel Zezula. Declustering of key-based partitioned signature files. *ACM Transactions on Database Systems*, 21(3):295–338, September 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-3/p295-ciaccia/p295-ciaccia.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-3/p295-ciaccia/; http://www.acm.org/pubs/toc/Abstracts/tods/232755.html.

Dey:1996:PRM

[473] Debabrata Dey and Sumit Sarkar. A probabilistic relational model and algebra. *ACM Transactions on Database*

Systems, 21(3):339–369, September 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-3/p339-dey/p339-dey.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-3/p339-dey/; http://www.acm.org/pubs/toc/Abstracts/tods/232796.html.

Ghandeharizadeh:1996:HED

[474] Shahram Ghandeharizadeh, Richard Hull, and Dean Jacobs. Heraclitus: Elevating deltas to be first-class citizens in a database programming language. *ACM Transactions on Database Systems*, 21(3):370–426, September 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-3/p370-ghandeharizadeh/p370-ghandeharizadeh.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-3/p370-ghandeharizadeh/; http://www.acm.org/pubs/toc/Abstracts/tods/232801.html.

Kuo:1996:MVD

[475] Dean Kuo. Model and verification of a data manager based on ARIES. *ACM Transactions on Database Systems*, 21(4):427–479, December 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-4/p427-kuo/p427-kuo.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-4/p427-kuo/.

Litwin:1996:LSD

[476] Witold Litwin, Marie-Anna Neimat, and Donovan A. Schneider. LH* — a scalable, distributed data structure. *ACM Transactions on Database Systems*, 21(4):480–525, December 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-4/p480-litwin/p480-litwin.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-4/p480-litwin/.

Raschid:1996:SUR

[477] Louiqa Raschid and Jorge Lobo. Semantics for update rule programs and implementation in a relational database management system. *ACM Transactions on Database Systems*, 21(4):526–572, December 1996. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1996-21-4/p526-raschid/p526-raschid.pdf; http://www.acm.org/pubs/citations/journals/tods/1996-21-4/p526-raschid/.

Keen:1997:EEL

[478] John S. Keen and William J. Dally. Extended ephemeral logging: log storage management for applications with long lived transactions. *ACM Transactions on Database Systems*, 22(1):1–42, March 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-1/p1-keen/p1-keen.pdf; http://www.acm.org/pubs/

citations/journals/tods/1997-22-1/p1-keen/.

Galindo-Legaria:1997:OSR

[479] César Galindo-Legaria and Arnon Rosenthal. Outerjoin simplification and reordering for query optimization. *ACM Transactions on Database Systems*, 22(1):43–74, March 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-1/p43-galindo-legaria/p43-galindo-legaria.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-1/p43-galindo-legaria/.

Peters:1997:AMD

[480] Randel J. Peters and M. Tamer Özsu. An axiomatic model of dynamic schema evolution in object-base systems. *ACM Transactions on Database Systems*, 22(1):75–114, March 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-1/p75-peters/p75-peters.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-1/p75-peters/.

Wang:1997:LDT

[481] X. Sean Wang, Claudio Bettini, Alexander Brodsky, and Sushil Jajodia. Logical design for temporal databases with multiple granularities. *ACM Transactions on Database Systems*, 22(2):115–170, June 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-2/p115-wang/p115-wang.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-2/p115-wang/.

Clifford:1997:SND

[482] James Clifford, Curtis Dyreson, Tomás Isakowitz, Christian S. Jensen, and Richard T. Snodgrass. On the semantics of "now" in databases. *ACM Transactions on Database Systems*, 22(2):171–214, June 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-2/p171-clifford/p171-clifford.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-2/p171-clifford/.

Ammann:1997:AFM

[483] Paul Ammann, Sushil Jajodia, and Indrakshi Ray. Applying formal methods to semantic-based decomposition of transactions. *ACM Transactions on Database Systems*, 22(2):215–254, June 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-2/p215-ammann/p215-ammann.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-2/p215-ammann/.

Wolfson:1997:ADR

[484] Ouri Wolfson, Sushil Jajodia, and Yixiu Huang. An adaptive data replication algorithm. *ACM Transactions on Database Systems*, 22(2):255–314, June 1997. CODEN ATDSD3.

ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-2/p255-wolfson/p255-wolfson.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-2/p255-wolfson/.

Franklin:1997:TCS

[485] Michael J. Franklin, Michael J. Carey, and Miron Livny. Transactional client-server cache consistency: alternatives and performance. *ACM Transactions on Database Systems*, 22(3):315–363, September 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-3/p315-franklin/p315-franklin.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-3/p315-franklin/; http://www.acm.org:80/pubs/citations/journals/tods/1997-22-3/p315-franklin/.

Eiter:1997:DD

[486] Thomas Eiter, Georg Gottlob, and Heikki Mannila. Disjunctive Datalog. *ACM Transactions on Database Systems*, 22(3):364–418, September 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-3/p364-eiter/p364-eiter.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-3/p364-eiter/; http://www.acm.org:80/pubs/citations/journals/tods/1997-22-3/p364-eiter/.

Lakshmanan:1997:PFP

[487] Laks V. S. Lakshmanan, Nicola Leone, Robert Ross, and V. S. Subrahmanian. ProbView: a flexible probabilistic database system. *ACM Transactions on Database Systems*, 22(3):419–469, September 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-3/p419-lakshmanan/p419-lakshmanan.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-3/p419-lakshmanan/; http://www.acm.org:80/pubs/citations/journals/tods/1997-22-3/p419-lakshmanan/.

Storey:1997:DDC

[488] Veda C. Storey, Roger H. L. Chiang, Debabrata Dey, Robert C. Goldstein, and Shankar Sundaresan. Database design with common sense business reasoning and learning. *ACM Transactions on Database Systems*, 22(4):471–512, December 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-4/p471-storey/p471-storey.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-4/p471-storey/; http://www.acm.org:80/pubs/citations/journals/tods/1997-22-4/p471-storey/.

Tari:1997:ONF

[489] Zahir Tari, John Stokes, and Stefano Spaccapietra. Object normal forms and dependency constraints for object-oriented schemata. *ACM Transactions on Database Systems*, 22(4):513–569, December 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.

org/pubs/articles/journals/tods/1997-22-4/p513-tari/p513-tari.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-4/p513-tari/.

Zaharioudakis:1997:AFG

[490] Markos Zaharioudakis, Michael J. Carey, and Michael J. Franklin. Adaptive, fine-grained sharing in a client-server OODBMS: a callback-based approach. *ACM Transactions on Database Systems*, 22(4):570–627, December 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1997-22-4/p570-zaharioudakis/p570-zaharioudakis.pdf; http://www.acm.org/pubs/citations/journals/tods/1997-22-4/p570-zaharioudakis/.

Anonymous:1997:AI

[491] Anonymous. 1997 author index. *ACM Transactions on Database Systems*, 22 (4):628–??, ???? 1997. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Dyreson:1998:SVT

[492] Curtis E. Dyreson and Richard T. Snodgrass. Supporting valid-time indeterminacy. *ACM Transactions on Database Systems*, 23(1):1–57, March 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1998-23-1/p1-dyreson/p1-dyreson.pdf; http://www.acm.org/pubs/citations/journals/tods/1998-23-1/p1-dyreson/; http://www.acm.org:80/pubs/citations/journals/tods/1998-23-1/p1-dyreson/.

Revesz:1998:SQL

[493] Peter Z. Revesz. Safe query languages for constraint databases. *ACM Transactions on Database Systems*, 23(1):58–99, March 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1998-23-1/p58-revesz/p58-revesz.pdf; http://www.acm.org/pubs/citations/journals/tods/1998-23-1/p58-revesz/; http://www.acm.org:80/pubs/citations/journals/tods/1998-23-1/p58-revesz/.

Stolboushkin:1998:SSD

[494] Alexei P. Stolboushkin and Michael A. Taitslin. Safe stratified datalog with integer order does not have syntax. *ACM Transactions on Database Systems*, 23(1):100–109, March 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/articles/journals/tods/1998-23-1/p100-stolboushkin/p100-stolboushkin.pdf; http://www.acm.org/pubs/citations/journals/tods/1998-23-1/p100-stolboushkin/.

Anonymous:1998:TR

[495] Anonymous. TODS referees. *ACM Transactions on Database Systems*, 23 (1):110–111, March 1998.

Anonymous:1998:C

[496] Anonymous. Corrigenda. *ACM Transactions on Database Systems*, 23(1): 112, March 1998.

Hellerstein:1998:OTQ

[497] Joseph M. Hellerstein. Optimization techniques for queries with expensive methods. *ACM Transactions on Database Systems*, 23(2):113–157, June 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1998-23-2/p113-hellerstein/p113-hellerstein.pdf; http://www.acm.org/pubs/citations/journals/tods/1998-23-2/p113-hellerstein/; http://www.acm.org:80/pubs/citations/journals/tods/1998-23-2/p113-hellerstein/`.

Liu:1998:MAP

[498] Xiangning Liu, Abdelsalam Helal, and Weimin Du. Multiview access protocols for large-scale replication. *ACM Transactions on Database Systems*, 23(2):158–198, June 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1998-23-2/p158-liu/p158-liu.pdf; http://www.acm.org/pubs/citations/journals/tods/1998-23-2/p158-liu/; http://www.acm.org:80/pubs/citations/journals/tods/1998-23-2/p158-liu/`.

Mehrotra:1998:ECM

[499] Sharad Mehrotra, Rajeev Rastogi, Henry F. Korth, and Abraham Silberschatz. Ensuring consistency in multidatabases by preserving two-level serializability. *ACM Transactions on Database Systems*, 23(2):199–230, June 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1998-23-2/p199-mehrotra/p199-mehrotra.pdf; http://www.acm.org/pubs/citations/journals/tods/1998-23-2/p199-mehrotra/; http://www.acm.org:80/pubs/citations/journals/tods/1998-23-2/p199-mehrotra/`.

Bertino:1998:ACM

[500] Elisa Bertino, Claudio Bettini, Elena Ferrari, and Pierangela Samarati. An access control model supporting periodicity constraints and temporal reasoning. *ACM Transactions on Database Systems*, 23(3):231–285, September 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/1998-23-3/p231-bertino/; http://www.acm.org:80/pubs/citations/journals/tods/1998-23-3/p231-bertino/`.

Castano:1998:CSA

[501] S. Castano, V. De Antonellis, M. G. Fugini, and B. Pernici. Conceptual schema analysis: techniques and applications. *ACM Transactions on Database Systems*, 23(3):286–333, September 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1998-23-3/p286-castano/p286-castano.pdf; http://www.acm.org/pubs/citations/journals/tods/1998-23-3/p286-castano/; http://www.acm.org:80/pubs/citations/journals/tods/1998-23-3/p286-castano/`.

Formica:1998:EMC

[502] A. Formica, H. D. Groger, and

M. Missikoff. An efficient method for checking object-oriented database schema correctness. *ACM Transactions on Database Systems*, 23(3):334–369, September 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1998-23-3/p334-formica/p334-formica.pdf`; `http://www.acm.org/pubs/citations/journals/tods/1998-23-3/p334-formica/`; `http://www.acm.org:80/pubs/citations/journals/tods/1998-23-3/p334-formica/`.

Konopnicki:1998:IGW

[503] David Konopnicki and Oded Shmueli. Information gathering in the World-Wide Web: the W3QL query language and the W3QS system. *ACM Transactions on Database Systems*, 23(4):369–410, December 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1998-23-4/p369-konopnicki/p369-konopnicki.pdf`; `http://www.acm.org/pubs/citations/journals/tods/1998-23-4/p369-konopnicki/`; `http://www.acm.org:80/pubs/citations/journals/tods/1998-23-4/p369-konopnicki/`.

Sistla:1998:TTC

[504] A. Prasad Sistla, Ouri Wolfson, Yelena Yesha, and Robert Sloan. Towards a theory of cost management for digital libraries and electronic commerce. *ACM Transactions on Database Systems*, 23(4):411–452, December 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1998-23-4/p411-sistla/p411-sistla.pdf`; `http://www.acm.org/pubs/citations/journals/tods/1998-23-4/p411-sistla/`; `http://www.acm.org:80/pubs/citations/journals/tods/1998-23-4/p411-sistla/`.

Zobel:1998:IFV

[505] Justin Zobel, Alistair Moffat, and Kotagiri Ramamohanarao. Inverted files versus signature files for text indexing. *ACM Transactions on Database Systems*, 23(4):453–490, December 1998. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1998-23-4/p453-zobel/p453-zobel.pdf`; `http://www.acm.org/pubs/citations/journals/tods/1998-23-4/p453-zobel/`; `http://www.acm.org:80/pubs/citations/journals/tods/1998-23-4/p453-zobel/`.

Datta:1999:BPS

[506] Anindya Datta, Debra E. Vandermeer, Aslihan Celik, and Vijay Kumar. Broadcast protocols to support efficient retrieval from databases by mobile users. *ACM Transactions on Database Systems*, 24(1):1–79, March 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/1999-24-1/p1-datta/`.

Levene:1999:DDI

[507] Mark Levene and George Loizou. Database design for incomplete relations. *ACM Transactions on Database Systems*, 24(1):80–126, March 1999.

CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1999-24-1/p80-levene/.

Wijsen:1999:TFC

[508] Jef Wijsen. Temporal FDs on complex objects. *ACM Transactions on Database Systems*, 24(1):127–176, March 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1999-24-1/p127-wijsen/.

Chaudhuri:1999:OQU

[509] Surajit Chaudhuri and Kyuseok Shim. Optimization of queries with user-defined predicates. *ACM Transactions on Database Systems*, 24(2):177–228, June 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1999-24-2/p177-chaudhuri/.

Gravano:1999:GTS

[510] Luis Gravano, Héctor García-Molina, and Anthony Tomasic. GlOSS: text-source discovery over the Internet. *ACM Transactions on Database Systems*, 24(2):229–264, June 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1999-24-2/p229-gravano/.

Hjaltason:1999:DBS

[511] Gísli R. Hjaltason and Hanan Samet. Distance browsing in spatial databases. *ACM Transactions on Database Systems*, 24(2):265–318, June 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1999-24-2/p265-hjaltason/.

Alagic:1999:TCO

[512] Suad Alagíc. Type-checking OQL queries in the ODMG type systems. *ACM Transactions on Database Systems*, 24(3):319–360, September 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1999-24-3/p319-alagic/.

Bozkaya:1999:ILM

[513] Tolga Bozkaya and Meral Ozsoyoglu. Indexing large metric spaces for similarity search queries. *ACM Transactions on Database Systems*, 24(3):361–404, September 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1999-24-3/p361-bozkaya/.

Casati:1999:SIE

[514] Fabio Casati, Stefano Ceri, Stefano Paraboschi, and Guiseppe Pozzi. Specification and implementation of exceptions in workflow management systems. *ACM Transactions on Database Systems*, 24(3):405–451, September 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL http://www.acm.org/pubs/citations/journals/tods/1999-24-3/p405-casati/.

Dey:1999:IDD

[515] Debabrata Dey, Veda C. Storey, and Terence M. Barron. Improving database design through the analysis of relationships. *ACM Transactions on Database Systems*, 24(4):453–486, December 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/1999-24-4/p453-dey/p453-dey.pdf; http://www.acm.org/pubs/citations/journals/tods/1999-24-4/p453-dey/`.

Muralidhar:1999:SRD

[516] Krishnamurty Muralidhar and Rathindra Sarathy. Security of random data perturbation methods. *ACM Transactions on Database Systems*, 24(4): 487–493, December 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/1999-24-4/p487-muralidhar/`.

Wand:1999:OAR

[517] Yair Wand, Veda C. Storey, and Ron Weber. An ontological analysis of the relationship construct in conceptual modeling. *ACM Transactions on Database Systems*, 24(4):494–528, December 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/1999-24-4/p494-wand/`.

Yan:1999:SID

[518] Tak W. Yan and Hector Garcia-Molina. The SIFT information dissemination system. *ACM Transactions on Database Systems*, 24(4):529–565, December 1999. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/1999-24-4/p529-yan/`.

Morris:19xx:DON

[519] K. Morris, J. D. Ullman, and A. VanGelder. Design overview of the NAIL! system. *ACM Transactions on Database Systems*, ??(??):??, ???? 19xx. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). Also published in/as: Proc. of International Conference on Logic Programming, BCS 3, 1986. Also published in/as: Stanford Un., CSD, TR-CS-86-1108.

Spiegler:19xx:DRA

[520] I. Spiegler and Y. Noff. Dynamic recovery as an alternative to data base restoration. *ACM Transactions on Database Systems*, ??(??):??, ???? 19xx. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). Submitted, March 1987.

Guting:2000:FRQ

[521] Ralf Hartmut Güting, Michael H. Böhlen, Martin Erwig, Christian S. Jensen, Nikos A. Lorentzos, Markus Schneider, and Michalis Vazirgiannis. A foundation for representing and querying moving objects. *ACM Transactions on Database Systems*, 25(1):1–42, March 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/2000-25-1/p1-guting/p1-guting.pdf; http://www.acm.org/pubs/citations/journals/tods/2000-25-1/p1-guting/`.

Kossmann:2000:IDP

[522] Donald Kossmann and Konrad Stocker. Iterative dynamic programming: a new class of query optimization algorithms. *ACM Transactions on Database Systems*, 25(1):43–82, March 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/2000-25-1/p43-kossmann/p43-kossmann.pdf; http://www.acm.org/pubs/citations/journals/tods/2000-25-1/p43-kossmann/`.

Lerner:2000:MCT

[523] Barbara Staudt Lerner. A model for compound type changes encountered in schema evolution. *ACM Transactions on Database Systems*, 25(1):83–127, March 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/2000-25-1/p83-lerner/p83-lerner.pdf; http://www.acm.org/pubs/citations/journals/tods/2000-25-1/p83-lerner/`.

Bohm:2000:CMQ

[524] Christian Böhm. A cost model for query processing in high dimensional data spaces. *ACM Transactions on Database Systems*, 25(2):129–178, June 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/2000-25-2/p129-bohm/p129-bohm.pdf; http://www.acm.org/pubs/citations/journals/tods/2000-25-2/p129-bohm/`.

Cui:2000:TLV

[525] Yingwei Cui, Jennifer Widom, and Janet L. Wiener. Tracing the lineage of view data in a warehousing environment. *ACM Transactions on Database Systems*, 25(2):179–227, June 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/2000-25-2/p179-cui/p179-cui.pdf; http://www.acm.org/pubs/citations/journals/tods/2000-25-2/p179-cui/`.

Parsons:2000:EIT

[526] Jeffrey Parsons and Yair Wand. Emancipating instances from the tyranny of classes in information modeling. *ACM Transactions on Database Systems*, 25(2):228–268, June 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/2000-25-2/p228-parsons/p228-parsons.pdf; http://www.acm.org/pubs/citations/journals/tods/2000-25-2/p228-parsons/`.

Baralis:2000:AAS

[527] Elena Baralis and Jennifer Widom. An algebraic approach to static analysis of active database rules. *ACM Transactions on Database Systems*, 25(3):269–332, September 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/2000-25-3/p269-baralis/`.

Kemme:2000:NAD

[528] Bettina Kemme and Gustavo Alonso.

A new approach to developing and implementing eager database replication protocols. *ACM Transactions on Database Systems*, 25(3):333–379, September 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/2000-25-3/p333-kemme/`.

Meo:2000:TDV

[529] Rosa Meo. Theory of dependence values. *ACM Transactions on Database Systems*, 25(3):380–406, September 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/citations/journals/tods/2000-25-3/p380-meo/`.

Bohlen:2000:TSM

[530] Michael H. Böhlen, Christian S. Jensen, and Richard T. Snodgrass. Temporal statement modifiers. *ACM Transactions on Database Systems*, 25 (4):407–456, 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/2000-25-4/p407-bohlen/p407-bohlen.pdf; http://www.acm.org/pubs/citations/journals/tods/2000-25-4/p407-bohlen/`.

Fegaras:2000:OOQ

[531] Leonidas Fegaras and David Maier. Optimizing object queries using an effective calculus. *ACM Transactions on Database Systems*, 25(4): 457–516, 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/2000-25-4/p457-fegaras/p457-fegaras.pdf; http://www.acm.org/pubs/citations/journals/tods/2000-25-4/p457-fegaras/`.

Kossmann:2000:CII

[532] Donald Kossmann, Michael J. Franklin, Gerhard Drasch, and Wig Ag. Cache investment: integrating query optimization and distributed data placement. *ACM Transactions on Database Systems*, 25(4):517–558, 2000. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `http://www.acm.org/pubs/articles/journals/tods/2000-25-4/p517-kossmann/p517-kossmann.pdf; http://www.acm.org/pubs/citations/journals/tods/2000-25-4/p517-kossmann/`.

Andries:2001:AUM

[533] Marc Andries, Luca Cabibbo, Jan Paredaens, and Jan van den Bussche. Applying an update method to a set of receivers. *ACM Transactions on Database Systems*, 26(1):1–40, March 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Dekhtyar:2001:PTD

[534] Alex Dekhtyar, Robert Ross, and V. S. Subrahmanian. Probabilistic temporal databases, I: algebra. *ACM Transactions on Database Systems*, 26(1):41–95, March 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hsu:2001:RBP

[535] Windsor W. Hsu, Alan Jay Smith, and Honesty C. Young. I/O reference behavior of production database work-

loads and the TPC benchmarks — an analysis at the logical level. *ACM Transactions on Database Systems*, 26 (1):96–143, March 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chomicki:2001:QAD

[536] Jan Chomicki, David Toman, and Michael H. Böhlen. Querying ATSQL databases with temporal logic. *ACM Transactions on Database Systems*, 26 (2):145–178, June 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fukuda:2001:DMO

[537] Takeshi Fukuda, Yasuhiko Morimoto, Shimichi Morishita, and Takeshi Tokuyama. Data mining with optimized two-dimensional association rules. *ACM Transactions on Database Systems*, 26(2):179–213, June 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jajodia:2001:FSM

[538] Sushil Jajodia, Pierangela Samarati, Maria Luisa Sapino, and V. S. Subrahmanian. Flexible support for multiple access control policies. *ACM Transactions on Database Systems*, 26 (2):214–260, June 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Eiter:2001:POB

[539] Thomas Eiter, James J. Lu, Thomas Lukasiewicz, and V. S. Subrahmanian. Probabilistic object bases. *ACM Transactions on Database Systems*, 26(3): 264–312, September 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Li:2001:AQU

[540] Chen Li and Edward Chang. Answering queries with useful bindings. *ACM Transactions on Database Systems*, 26(3):313–343, September 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ng:2001:ERD

[541] Wilfred Ng. An extension of the relational data model to incorporate ordered domains. *ACM Transactions on Database Systems*, 26(3):344–383, September 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kotidis:2001:CDV

[542] Yannis Kotidis and Nick Roussopoulos. A case for dynamic view management. *ACM Transactions on Database Systems*, 26(4):388–423, December 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Mamoulis:2001:MSJ

[543] Nikos Mamoulis and Dimitris Papadias. Multiway spatial joins. *ACM Transactions on Database Systems*, 26 (4):424–475, December 2001. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lakshmanan:2001:SES

[544] Laks V. S. Lakshmanan, Fereidoon Sadri, and Subbu N. Subramanian. SchemaSQL: An extension to SQL for multidatabase interoperability. *ACM Transactions on Database Systems*, 26 (4):476–519, December 2001. CODEN

ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Suciu:2002:DQE

[545] Dan Suciu. Distributed query evaluation on semistructured data. *ACM Transactions on Database Systems*, 27(1):1–62, March 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Schuldt:2002:AIT

[546] Heiko Schuldt, Gustavo Alonso, Catriel Beeri, and Hans-Jörg Schek. Atomicity and isolation for transactional processes. *ACM Transactions on Database Systems*, 27(1):63–116, March 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Liu:2002:LFD

[547] Mengchi Liu, Gillian Dobbie, and Tok Wang Ling. A logical foundation for deductive object-oriented databases. *ACM Transactions on Database Systems*, 27(1):117–151, March 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bruno:2002:TSQ

[548] Nicolas Bruno, Surajit Chaudhuri, and Luis Gravano. Top-k selection queries over relational databases: Mapping strategies and performance evaluation. *ACM Transactions on Database Systems*, 27(2):153–187, June 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chakrabarti:2002:LAD

[549] Kaushik Chakrabarti, Eamonn Keogh, Sharad Mehrotra, and Michael Pazzani. Locally adaptive dimensionality reduction for indexing large time series databases. *ACM Transactions on Database Systems*, 27(2):188–228, June 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Calders:2002:SDM

[550] Toon Calders, Raymond T. Ng, and Jef Wijsen. Searching for dependencies at multiple abstraction levels. *ACM Transactions on Database Systems*, 27 (3):229–260, September 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gibbons:2002:FIM

[551] Phillip B. Gibbons, Yossi Matias, and Viswanath Poosala. Fast incremental maintenance of approximate histograms. *ACM Transactions on Database Systems*, 27(3):261–298, September 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Tao:2002:CMO

[552] Yufei Tao, Dimitris Papadias, and Jun Zhang. Cost models for overlapping and multiversion structures. *ACM Transactions on Database Systems*, 27 (3):299–342, September 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

May:2002:UGS

[553] Wolfgang May and Bertram Ludäscher. Understanding the global semantics of referential actions using logic rules. *ACM Transactions on Database Systems*, 27(4):343–397, December 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ciaccia:2002:SMS

[554] Paolo Ciaccia and Marco Patella. Searching in metric spaces with user-defined and approximate distances. *ACM Transactions on Database Systems*, 27(4):398–437, December 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fernandez:2002:SFP

[555] Mary Fernández, Yana Kadiyska, Dan Suciu, Atsuyuki Morishima, and Wang-Chiew Tan. SilkRoute: a framework for publishing relational data in XML. *ACM Transactions on Database Systems*, 27(4):438–493, December 2002. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Beneventano:2003:DLS

[556] Domenico Beneventano, Sonia Bergamaschi, and Claudio Sartori. Description logics for semantic query optimization in object-oriented database systems. *ACM Transactions on Database Systems*, 28(1):1–50, March 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Karp:2003:SAF

[557] Richard M. Karp, Scott Shenker, and Christos H. Papadimitriou. A simple algorithm for finding frequent elements in streams and bags. *ACM Transactions on Database Systems*, 28 (1):51–55, March 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Melnik:2003:AAS

[558] Sergey Melnik and Hector Garcia-Molina. Adaptive algorithms for set containment joins. *ACM Transactions on Database Systems*, 28(1):56–99, March 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Tao:2003:SQD

[559] Yufei Tao and Dimitris Papadias. Spatial queries in dynamic environments. *ACM Transactions on Database Systems*, 28(2):101–139, June 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gunopulos:2003:DAM

[560] Dimitrios Gunopulos, Roni Khardon, Heikki Mannila, Sanjeev Saluja, Hannu Toivonen, and Ram Sewak Sharma. Discovering all most specific sentences. *ACM Transactions on Database Systems*, 28(2):140–174, June 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lechtenborger:2003:CRV

[561] Jens Lechtenbörger and Gottfried Vossen. On the computation of relational view complements. *ACM Transactions on Database Systems*, 28(2):175–208, June 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wijesekera:2003:RPF

[562] Duminda Wijesekera, Sushil Jajodia, Francesco Parisi-Presicce, and Åsa Hagström. Removing permissions in the flexible authorization framework. *ACM Transactions on Database Systems*, 28(3):209–229, September 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jacox:2003:ISJ

[563] Edwin H. Jacox and Hanan Samet. Iterative spatial join. *ACM Transactions on Database Systems*, 28(3): 230–256, September 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jimenez-Peris:2003:QAD

[564] Ricardo Jiménez-Peris, M. Patiño-Martínez, Gustavo Alonso, and Bettina Kemme. Are quorums an alternative for data replication? *ACM Transactions on Database Systems*, 28 (3):257–294, September 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Tao:2003:APS

[565] Yufei Tao, Jimeng Sun, and Dimitris Papadias. Analysis of predictive spatio-temporal queries. *ACM Transactions on Database Systems*, 28(4): 295–336, December 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lakshmanan:2003:EDM

[566] Laks V. S. Lakshmanan, Carson Kai-Sang Leung, and Raymond T. Ng. Efficient dynamic mining of constrained frequent sets. *ACM Transactions on Database Systems*, 28(4):337–389, December 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cho:2003:EPR

[567] Junghoo Cho and Hector Garcia-Molina. Effective page refresh policies for Web crawlers. *ACM Transactions on Database Systems*, 28(4): 390–426, December 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chomicki:2003:PFR

[568] Jan Chomicki. Preference formulas in relational queries. *ACM Transactions on Database Systems*, 28(4): 427–466, December 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Diao:2003:PSP

[569] Yanlei Diao, Mehmet Altinel, Michael J. Franklin, Hao Zhang, and Peter Fischer. Path sharing and predicate evaluation for high-performance XML filtering. *ACM Transactions on Database Systems*, 28(4):467–516, December 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hjaltason:2003:IDS

[570] Gisli R. Hjaltason and Hanan Samet. Index-driven similarity search in metric spaces. *ACM Transactions on Database Systems*, 28(4):517–580, December 2003. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kolaitis:2004:F

[571] Phokion Kolaitis and Michael J. Franklin. Foreword. *ACM Transactions on Database Systems*, 29(1):1, March 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Buneman:2004:ASD

[572] Peter Buneman, Sanjeev Khanna, Keishi Tajima, and Wang-Chiew Tan.

Archiving scientific data. *ACM Transactions on Database Systems*, 29(1):2–42, March 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Garofalakis:2004:PWS

[573] Minos Garofalakis and Phillip B. Gibbons. Probabilistic wavelet synopses. *ACM Transactions on Database Systems*, 29(1):43–90, March 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Grust:2004:AXE

[574] Torsten Grust, Maurice Van Keulen, and Jens Teubner. Accelerating XPath evaluation in any RDBMS. *ACM Transactions on Database Systems*, 29 (1):91–131, March 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ross:2004:SCM

[575] Kenneth A. Ross. Selection conditions in main memory. *ACM Transactions on Database Systems*, 29(1):132–161, March 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Arasu:2004:CMR

[576] Arvind Arasu, Brian Babcock, Shivnath Babu, Jon McAlister, and Jennifer Widom. Characterizing memory requirements for queries over continuous data streams. *ACM Transactions on Database Systems*, 29(1):162–194, March 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Arenas:2004:NFX

[577] Marcelo Arenas and Leonid Libkin. A normal form for XML documents. *ACM Transactions on Database Systems*, 29(1):195–232, March 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Amer-Yahia:2004:DAO

[578] Sihem Amer-Yahia and Sophie Cluet. A declarative approach to optimize bulk loading into databases. *ACM Transactions on Database Systems*, 29 (2):233–281, June 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sadri:2004:EOS

[579] Reza Sadri, Carlo Zaniolo, Amir Zarkesh, and Jafar Adibi. Expressing and optimizing sequence queries in database systems. *ACM Transactions on Database Systems*, 29(2):282–318, June 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Marian:2004:ETQ

[580] Amélie Marian, Nicolas Bruno, and Luis Gravano. Evaluating top-k queries over Web-accessible databases. *ACM Transactions on Database Systems*, 29 (2):319–362, June 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yu:2004:CAM

[581] Ting Yu, Divesh Srivastava, Laks V. S. Lakshmanan, and H. V. Jagadish. A compressed accessibility map for XML. *ACM Transactions on Database Systems*, 29(2):363–402, June 2004.

CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Datta:2004:PBA

[582] Anindya Datta, Kaushik Dutta, Helen Thomas, Debra Vandermeer, and Krithi Ramamritham. Proxy-based acceleration of dynamically generated content on the World Wide Web: An approach and implementation. *ACM Transactions on Database Systems*, 29 (2):403–443, June 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Vincent:2004:SFD

[583] Millist W. Vincent, Jixue Liu, and Chengfei Liu. Strong functional dependencies and their application to normal forms in XML. *ACM Transactions on Database Systems*, 29(3): 445–462, September 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Trajcevski:2004:MUM

[584] Goce Trajcevski, Ouri Wolfson, Klaus Hinrichs, and Sam Chamberlain. Managing uncertainty in moving objects databases. *ACM Transactions on Database Systems*, 29(3):463–507, September 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chaudhuri:2004:EPM

[585] Surajit Chaudhuri, Vivek Narasayya, and Sunita Sarawagi. Extracting predicates from mining models for efficient query evaluation. *ACM Transactions on Database Systems*, 29(3): 508–544, September 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Babu:2004:ECR

[586] Shivnath Babu, Utkarsh Srivastava, and Jennifer Widom. Exploiting k-constraints to reduce memory overhead in continuous queries over data streams. *ACM Transactions on Database Systems*, 29(3):545–580, September 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ozsoyoglu:2004:QWM

[587] Gültekin Özsoyoğlu, Ismail Sengör Altingövde, Abdullah Al-Hamdani, Selma Ayşe Özel, Özgür Ulusoy, and Zehra Meral özsoyoğlu. Querying Web metadata: Native score management and text support in databases. *ACM Transactions on Database Systems*, 29 (4):581–634, December 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Baralis:2004:ECR

[588] Elena Baralis and Silvia Chiusano. Essential classification rule sets. *ACM Transactions on Database Systems*, 29 (4):635–674, December 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chen:2004:MBV

[589] Songting Chen, Bin Liu, and Elke A. Rundensteiner. Multiversion-based view maintenance over distributed data sources. *ACM Transactions on Database Systems*, 29(4):675–709, December 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Balmin:2004:IVX

[590] Andrey Balmin, Yannis Papakonstantinou, and Victor Vianu. Incremental validation of XML documents. *ACM Transactions on Database Systems*, 29 (4):710–751, December 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Green:2004:PXS

[591] Todd J. Green, Ashish Gupta, Gerome Miklau, Makoto Onizuka, and Dan Suciu. Processing XML streams with deterministic automata and stream indexes. *ACM Transactions on Database Systems*, 29(4):752–788, December 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Samet:2004:DPG

[592] Hanan Samet. Decoupling partitioning and grouping: Overcoming shortcomings of spatial indexing with bucketing. *ACM Transactions on Database Systems*, 29(4):789–830, December 2004. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Milo:2005:EIX

[593] Tova Milo, Serge Abiteboul, Bernd Amann, Omar Benjelloun, and Fred Dang Ngoc. Exchanging intensional XML data. *ACM Transactions on Database Systems*, 30(1):1–40, March 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Papadias:2005:PSC

[594] Dimitris Papadias, Yufei Tao, Greg Fu, and Bernhard Seeger. Progressive skyline computation in database systems. *ACM Transactions on Database Systems*, 30(1):41–82, March 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Witkowski:2005:ASM

[595] Andrew Witkowski, Srikanth Bellamkonda, Tolga Bozkaya, Nathan Folkert, Abhinav Gupta, John Haydu, Lei Sheng, and Sankar Subramanian. Advanced SQL modeling in RDBMS. *ACM Transactions on Database Systems*, 30(1):83–121, March 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Madden:2005:TAQ

[596] Samuel R. Madden, Michael J. Franklin, Joseph M. Hellerstein, and Wei Hong. TinyDB: an acquisitional query processing system for sensor networks. *ACM Transactions on Database Systems*, 30(1):122–173, March 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fagin:2005:DEG

[597] Ronald Fagin, Phokion G. Kolaitis, and Lucian Popa. Data exchange: getting to the core. *ACM Transactions on Database Systems*, 30(1):174–210, March 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pu:2005:CDS

[598] Ken Q. Pu and Alberto O. Mendelzon. Concise descriptions of subsets of structured sets. *ACM Transactions on Database Systems*, 30(1):211–248, March 2005. CODEN ATDSD3. ISSN

0362-5915 (print), 1557-4644 (electronic).

Cormode:2005:WHW

[599] Graham Cormode and S. Muthukrishnan. What's hot and what's not: tracking most frequent items dynamically. *ACM Transactions on Database Systems*, 30(1):249–278, March 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Garofalakis:2005:XSP

[600] Minos Garofalakis and Amit Kumar. XML stream processing using tree-edit distance embeddings. *ACM Transactions on Database Systems*, 30(1):279–332, March 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Geerts:2005:TUB

[601] Floris Geerts, Bart Goethals, and Jan Van Den Bussche. Tight upper bounds on the number of candidate patterns. *ACM Transactions on Database Systems*, 30(2):333–363, June 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jagadish:2005:IAB

[602] H. V. Jagadish, Beng Chin Ooi, Kian-Lee Tan, Cui Yu, and Rui Zhang. iDistance: An adaptive B^+-tree based indexing method for nearest neighbor search. *ACM Transactions on Database Systems*, 30(2):364–397, June 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Braga:2005:XXU

[603] Daniele Braga, Alessandro Campi, and Stefano Ceri. *XQBE* (*XQ*uery *B*y *E*xample): a visual interface to the standard XML query language. *ACM Transactions on Database Systems*, 30(2):398–443, June 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gottlob:2005:EAP

[604] Georg Gottlob, Christoph Koch, and Reinhard Pichler. Efficient algorithms for processing XPath queries. *ACM Transactions on Database Systems*, 30(2):444–491, June 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fekete:2005:MSI

[605] Alan Fekete, Dimitrios Liarokapis, Elizabeth O'Neil, Patrick O'Neil, and Dennis Shasha. Making snapshot isolation serializable. *ACM Transactions on Database Systems*, 30(2):492–528, June 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Papadias:2005:ANN

[606] Dimitris Papadias, Yufei Tao, Kyriakos Mouratidis, and Chun Kit Hui. Aggregate nearest neighbor queries in spatial databases. *ACM Transactions on Database Systems*, 30(2):529–576, June 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Peng:2005:XSX

[607] Feng Peng and Sudarshan S. Chawathe. XSQ: a streaming XPath engine. *ACM Transactions on Database Systems*, 30(2):577–623, June 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wyss:2005:RLM

[608] Catharine M. Wyss and Edward L. Robertson. Relational languages for metadata integration. *ACM Transactions on Database Systems*, 30(2):624–660, June 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zhang:2005:GMD

[609] Rui Zhang, Panos Kalnis, Beng Chin Ooi, and Kian-Lee Tan. Generalized multidimensional data mapping and query processing. *ACM Transactions on Database Systems*, 30(3): 661–697, September 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pang:2005:IMS

[610] Chaoyi Pang, Guozhu Dong, and Kotagiri Ramamohanarao. Incremental maintenance of shortest distance and transitive closure in first-order logic and SQL. *ACM Transactions on Database Systems*, 30(3):698–721, September 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wijsen:2005:DRU

[611] Jef Wijsen. Database repairing using updates. *ACM Transactions on Database Systems*, 30(3):722–768, September 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Litwin:2005:LHA

[612] Witold Litwin, Rim Moussa, and Thomas Schwarz. LH*RS—a highly-available scalable distributed data structure. *ACM Transactions on Database Systems*, 30(3):769–811, September 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

He:2005:STC

[613] Zhen He, Byung Suk Lee, and Robert Snapp. Self-tuning cost modeling of user-defined functions in an object-relational DBMS. *ACM Transactions on Database Systems*, 30(3):812–853, September 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hurtado:2005:CSI

[614] Carlos A. Hurtado, Claudio Gutierrez, and Alberto O. Mendelzon. Capturing summarizability with integrity constraints in OLAP. *ACM Transactions on Database Systems*, 30(3): 854–886, September 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Suciu:2005:F

[615] Dan Suciu and Gerhard Weikum. Foreword. *ACM Transactions on Database Systems*, 30(4):887, December 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Garofalakis:2005:WSG

[616] Minos Garofalakis and Amit Kumar. Wavelet synopses for general error metrics. *ACM Transactions on Database Systems*, 30(4):888–928, December 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Marx:2005:CX

[617] Maarten Marx. Conditional XPath. *ACM Transactions on Database Systems*, 30(4):929–959, December 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yan:2005:GIB

[618] Xifeng Yan, Philip S. Yu, and Jiawei Han. Graph indexing based on discriminative frequent structure analysis. *ACM Transactions on Database Systems*, 30(4):960–993, December 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fagin:2005:CSM

[619] Ronald Fagin, Phokion G. Kolaitis, Lucian Popa, and Wang-Chiew Tan. Composing schema mappings: Second-order dependencies to the rescue. *ACM Transactions on Database Systems*, 30 (4):994–1055, December 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bowman:2005:OQS

[620] Ivan T. Bowman and Kenneth Salem. Optimization of query streams using semantic prefetching. *ACM Transactions on Database Systems*, 30(4): 1056–1101, December 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kaushik:2005:SQO

[621] Raghav Kaushik, Jeffrey F. Naughton, Raghu Ramakrishnan, and Venkatesan T. Chakravarthy. Synopses for query optimization: a space-complexity perspective. *ACM Transactions on Database Systems*, 30(4): 1102–1127, December 2005. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wu:2006:OBI

[622] Kesheng Wu, Ekow J. Otoo, and Arie Shoshani. Optimizing bitmap indices with efficient compression. *ACM Transactions on Database Systems*, 31(1):1–38, March 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Schneider:2006:TRB

[623] Markus Schneider and Thomas Behr. Topological relationships between complex spatial objects. *ACM Transactions on Database Systems*, 31(1):39–81, March 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jaluta:2006:BTC

[624] Ibrahim Jaluta, Seppo Sippu, and Eljas Soisalon-Soininen. B-tree concurrency control and recovery in page-server database systems. *ACM Transactions on Database Systems*, 31(1):82–132, March 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gray:2006:CTC

[625] Jim Gray and Leslie Lamport. Consensus on transaction commit. *ACM Transactions on Database Systems*, 31 (1):133–160, March 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Guha:2006:IXD

[626] Sudipto Guha, H. V. Jagadish, Nick Koudas, Divesh Srivastava, and Ting

Yu. Integrating XML data sources using approximate joins. *ACM Transactions on Database Systems*, 31(1):161–207, March 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Abiteboul:2006:RQX

[627] Serge Abiteboul, Luc Segoufin, and Victor Vianu. Representing and querying XML with incomplete information. *ACM Transactions on Database Systems*, 31(1):208–254, March 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pelanis:2006:IPP

[628] Mindaugas Pelanis, Simonas Šaltenis, and Christian S. Jensen. Indexing the past, present, and anticipated future positions of moving objects. *ACM Transactions on Database Systems*, 31 (1):255–298, March 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Rao:2006:SXD

[629] Praveen Rao and Bongki Moon. Sequencing XML data and query twigs for fast pattern matching. *ACM Transactions on Database Systems*, 31 (1):299–345, March 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

He:2006:ACS

[630] Bin He and Kevin Chen-Chuan Chang. Automatic complex schema matching across Web query interfaces: a correlation mining approach. *ACM Transactions on Database Systems*, 31 (1):346–395, March 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Guha:2006:ASA

[631] Sudipto Guha, Nick Koudas, and Kyuseok Shim. Approximation and streaming algorithms for histogram construction problems. *ACM Transactions on Database Systems*, 31(1):396–438, March 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Qian:2006:DIM

[632] Gang Qian, Qiang Zhu, Qiang Xue, and Sakti Pramanik. Dynamic indexing for multidimensional non-ordered discrete data spaces using a data-partitioning approach. *ACM Transactions on Database Systems*, 31(2):439–484, June 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Iwerks:2006:MNS

[633] Glenn S. Iwerks, Hanan Samet, and Kenneth P. Smith. Maintenance of K-nn and spatial join queries on continuously moving points. *ACM Transactions on Database Systems*, 31(2):485–536, June 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pentaris:2006:QOD

[634] Fragkiskos Pentaris and Yannis Ioannidis. Query optimization in distributed networks of autonomous database systems. *ACM Transactions on Database Systems*, 31(2):537–583, June 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lin:2006:SLT

[635] Xuemin Lin, Qing Liu, Yidong Yuan, Xiaofang Zhou, and Hongjun Lu. Summarizing level-two topological relations in large spatial datasets. *ACM Transactions on Database Systems*, 31 (2):584–630, June 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bright:2006:APB

[636] Laura Bright, Avigdor Gal, and Louiqa Raschid. Adaptive pull-based policies for wide area data delivery. *ACM Transactions on Database Systems*, 31 (2):631–671, June 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cohen:2006:RQA

[637] Sara Cohen, Werner Nutt, and Yehoshua Sagiv. Rewriting queries with arbitrary aggregation functions using views. *ACM Transactions on Database Systems*, 31(2):672–715, June 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kalashnikov:2006:DID

[638] Dmitri V. Kalashnikov and Sharad Mehrotra. Domain-independent data cleaning via analysis of entity-relationship graph. *ACM Transactions on Database Systems*, 31(2):716–767, June 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Eiter:2006:ISI

[639] Thomas Eiter and Leonid Libkin. Introduction to special ICDT section. *ACM Transactions on Database Systems*, 31(3):769, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Martens:2006:ECX

[640] Wim Martens, Frank Neven, Thomas Schwentick, and Geert Jan Bex. Expressiveness and complexity of XML Schema. *ACM Transactions on Database Systems*, 31(3):770–813, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Shaft:2006:TNN

[641] Uri Shaft and Raghu Ramakrishnan. Theory of nearest neighbors indexability. *ACM Transactions on Database Systems*, 31(3):814–838, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Braganholo:2006:PFA

[642] Vanessa P. Braganholo, Susan B. Davidson, and Carlos A. Heuser. PATAXÓ: a framework to allow updates through XML views. *ACM Transactions on Database Systems*, 31 (3):839–886, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Harizopoulos:2006:IIC

[643] Stavros Harizopoulos and Anastassia Ailamaki. Improving instruction cache performance in OLTP. *ACM Transactions on Database Systems*, 31(3): 887–920, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Shao:2006:TNV

[644] Feng Shao, Antal Novak, and Jayavel Shanmugasundaram. Triggers over nested views of relational data. *ACM Transactions on Database Systems*, 31 (3):921–967, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

May:2006:SQU

[645] Norman May, Sven Helmer, and Guido Moerkotte. Strategies for query unnesting in XML databases. *ACM Transactions on Database Systems*, 31(3): 968–1013, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Polyzotis:2006:XSX

[646] Neoklis Polyzotis and Minos Garofalakis. XSKETCH synopses for XML data graphs. *ACM Transactions on Database Systems*, 31(3): 1014–1063, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sugumaran:2006:RDO

[647] Vijayan Sugumaran and Veda C. Storey. The role of domain ontologies in database design: An ontology management and conceptual modeling environment. *ACM Transactions on Database Systems*, 31(3):1064–1094, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Metwally:2006:IES

[648] Ahmed Metwally, Divyakant Agrawal, and Amr El Abbadi. An integrated efficient solution for computing frequent and top-k elements in data streams. *ACM Transactions on Database Systems*, 31(3):1095–1133, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). See comments in [760].

Chaudhuri:2006:PIR

[649] Surajit Chaudhuri, Gautam Das, Vagelis Hristidis, and Gerhard Weikum. Probabilistic information retrieval approach for ranking of database query results. *ACM Transactions on Database Systems*, 31(3):1134–1168, September 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Calders:2006:EPA

[650] Toon Calders, Laks V. S. Lakshmanan, Raymond T. Ng, and Jan Paredaens. Expressive power of an algebra for data mining. *ACM Transactions on Database Systems*, 31(4): 1169–1214, December 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Koch:2006:CNX

[651] Christoph Koch. On the complexity of nonrecursive XQuery and functional query languages on complex values. *ACM Transactions on Database Systems*, 31(4):1215–1256, December 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ilyas:2006:ARA

[652] Ihab F. Ilyas, Walid G. Aref, Ahmed K. Elmagarmid, Hicham G. Elmongui, Rahul Shah, and Jeffrey Scott Vitter. Adaptive rank-aware query optimization in relational databases. *ACM Transactions on Database Systems*, 31

(4):1257–1304, December 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jiao:2006:MSS

[653] Yishan Jiao. Maintaining stream statistics over multiscale sliding windows. *ACM Transactions on Database Systems*, 31(4):1305–1334, December 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pei:2006:TMS

[654] Jian Pei, Yidong Yuan, Xuemin Lin, Wen Jin, Martin Ester, Qing Liu, Wei Wang, Yufei Tao, Jeffrey Xu Yu, and Qing Zhang. Towards multidimensional subspace skyline analysis. *ACM Transactions on Database Systems*, 31(4): 1335–1381, December 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jermaine:2006:SMS

[655] Christopher Jermaine, Alin Dobra, Subramanian Arumugam, Shantanu Joshi, and Abhijit Pol. The Sort-Merge-Shrink join. *ACM Transactions on Database Systems*, 31(4): 1382–1416, December 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Afrati:2006:FSS

[656] Foto Afrati and Jennifer Widom. Foreword to special section on SIGMOD/PODS 2005. *ACM Transactions on Database Systems*, 31(4):1417, December 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yan:2006:FBS

[657] Xifeng Yan, Feida Zhu, Philip S. Yu, and Jiawei Han. Feature-based similarity search in graph structures. *ACM Transactions on Database Systems*, 31(4):1418–1453, December 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fuxman:2006:PDE

[658] Ariel Fuxman, Phokion G. Kolaitis, Renée J. Miller, and Wang-Chiew Tan. Peer data exchange. *ACM Transactions on Database Systems*, 31(4): 1454–1498, December 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cheng:2006:DMM

[659] David Cheng, Ravi Kannan, Santosh Vempala, and Grant Wang. A divide-and-merge methodology for clustering. *ACM Transactions on Database Systems*, 31(4):1499–1525, December 2006. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Snodgrass:2007:ESV

[660] Richard T. Snodgrass. Editorial: Single- versus double-blind reviewing. *ACM Transactions on Database Systems*, 32(1):1:1–1:??, March 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pourabbas:2007:EEJ

[661] Elaheh Pourabbas and Arie Shoshani. Efficient estimation of joint queries from multiple OLAP databases. *ACM Transactions on Database Systems*, 32 (1):2:1–2:??, March 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Olteanu:2007:FNS

[662] Dan Olteanu. Forward node-selecting queries over trees. *ACM Transactions on Database Systems*, 32(1):3:1–3:??, March 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Nash:2007:CMG

[663] Alan Nash, Philip A. Bernstein, and Sergey Melnik. Composition of mappings given by embedded dependencies. *ACM Transactions on Database Systems*, 32(1):4:1–4:??, March 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hwang:2007:OTK

[664] Seung won Hwang and Kevin Chen chuan Chang. Optimizing top-k queries for middleware access: a unified cost-based approach. *ACM Transactions on Database Systems*, 32(1):5:1–5:??, March 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ceri:2007:MCV

[665] Stefano Ceri, Francesco Di Giunta, and Pier Luca Lanzi. Mining constraint violations. *ACM Transactions on Database Systems*, 32(1):6:1–6:??, March 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jacox:2007:SJT

[666] Edwin H. Jacox and Hanan Samet. Spatial join techniques. *ACM Transactions on Database Systems*, 32(1):7:1–7:??, March 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Athitsos:2007:QSE

[667] Vassilis Athitsos, Marios Hadjieleftheriou, George Kollios, and Stan Sclaroff. Query-sensitive embeddings. *ACM Transactions on Database Systems*, 32 (2):8:1–8:??, June 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chaudhuri:2007:OSS

[668] Surajit Chaudhuri, Gautam Das, and Vivek Narasayya. Optimized stratified sampling for approximate query processing. *ACM Transactions on Database Systems*, 32(2):9:1–9:??, June 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Deligiannakis:2007:EWM

[669] Antonios Deligiannakis, Minos Garofalakis, and Nick Roussopoulos. Extended wavelets for multiple measures. *ACM Transactions on Database Systems*, 32(2):10:1–10:??, June 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Rusu:2007:PRN

[670] Florin Rusu and Alin Dobra. Pseudo-random number generation for sketch-based estimations. *ACM Transactions on Database Systems*, 32(2):11:1–11:48, June 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Mazeika:2007:ESA

[671] Arturas Mazeika, Michael H. Böhlen, Nick Koudas, and Divesh Srivastava. Estimating the selectivity of approximate string queries. *ACM Transactions on Database Systems*, 32(2):12:1–12:??,

June 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zeng:2007:CCC

[672] Zhiping Zeng, Jianyong Wang, Lizhu Zhou, and George Karypis. Out-of-core coherent closed quasi-clique mining from large dense graph databases. *ACM Transactions on Database Systems*, 32(2):13:1–13:??, June 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ipeirotis:2007:MMC

[673] Panagiotis G. Ipeirotis, Alexandros Ntoulas, Junghoo Cho, and Luis Gravano. Modeling and managing changes in text databases. *ACM Transactions on Database Systems*, 32(3):14:1–14:??, August 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Tao:2007:RSM

[674] Yufei Tao, Xiaokui Xiao, and Reynold Cheng. Range search on multidimensional uncertain data. *ACM Transactions on Database Systems*, 32(3): 15:1–15:??, August 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sinha:2007:MRB

[675] Rishi Rakesh Sinha and Marianne Winslett. Multi-resolution bitmap indexes for scientific data. *ACM Transactions on Database Systems*, 32(3): 16:1–16:??, August 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chen:2007:IHJ

[676] Shimin Chen, Anastassia Ailamaki, Phillip B. Gibbons, and Todd C. Mowry. Improving hash join performance through prefetching. *ACM Transactions on Database Systems*, 32 (3):17:1–17:??, August 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cao:2007:SQO

[677] Bin Cao and Antonio Badia. SQL query optimization through nested relational algebra. *ACM Transactions on Database Systems*, 32(3):18:1–18:??, August 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Mamoulis:2007:ETA

[678] Nikos Mamoulis, Man Lung Yiu, Kit Hung Cheng, and David W. Cheung. Efficient top-k aggregation of ranked inputs. *ACM Transactions on Database Systems*, 32(3):19:1–19:??, August 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chaudhuri:2007:IAS

[679] Surajit Chaudhuri. Introduction to ACM SIGMOD 2006 conference papers. *ACM Transactions on Database Systems*, 32(4):20:1–20:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ipeirotis:2007:TQO

[680] Panagiotis G. Ipeirotis, Eugene Agichtein, Pranay Jain, and Luis Gravano. Towards a query optimizer

for text-centric tasks. *ACM Transactions on Database Systems*, 32(4): 21:1–21:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Petropoulos:2007:EIQ

[681] Michalis Petropoulos, Alin Deutsch, Yannis Papakonstantinou, and Yannis Katsis. Exporting and interactively querying Web service-accessed sources: The CLIDE System. *ACM Transactions on Database Systems*, 32(4): 22:1–22:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sharfman:2007:GAM

[682] Izchak Sharfman, Assaf Schuster, and Daniel Keren. A geometric approach to monitoring threshold functions over distributed data streams. *ACM Transactions on Database Systems*, 32(4): 23:1–23:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

VandenBussche:2007:IPS

[683] Jan Van den Bussche. Introduction to the PODS 2006 special section. *ACM Transactions on Database Systems*, 32(4):24:1–24:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fagin:2007:ISM

[684] Ronald Fagin. Inverting schema mappings. *ACM Transactions on Database Systems*, 32(4):25:1–25:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bender:2007:APM

[685] Michael A. Bender and Haodong Hu. An adaptive packed-memory array. *ACM Transactions on Database Systems*, 32(4):26:1–26:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ioannidis:2007:IES

[686] Yannis Ioannidis. Introduction to the EDBT 2006 special section. *ACM Transactions on Database Systems*, 32 (4):27:1–27:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bruno:2007:PDR

[687] Nicolas Bruno and Surajit Chaudhuri. Physical design refinement: The 'merge-reduce' approach. *ACM Transactions on Database Systems*, 32(4): 28:1–28:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Skopal:2007:UFF

[688] Tomáš Skopal. Unified framework for fast exact and approximate search in dissimilarity spaces. *ACM Transactions on Database Systems*, 32(4): 29:1–29:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Li:2007:NGN

[689] Yunyao Li, Huahai Yang, and H. V. Jagadish. NaLIX: a generic natural language search environment for XML data. *ACM Transactions on Database Systems*, 32(4):30:1–30:??, November 2007. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hristidis:2008:ABK

[690] Vagelis Hristidis, Heasoo Hwang, and Yannis Papakonstantinou. Authority-based keyword search in databases. *ACM Transactions on Database Systems*, 33(1):1:1–1:40, March 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Aggarwal:2008:SDM

[691] Charu C. Aggarwal and Philip S. Yu. On static and dynamic methods for condensation-based privacy-preserving data mining. *ACM Transactions on Database Systems*, 33(1):2:1–2:39, March 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Balazinska:2008:FTB

[692] Magdalena Balazinska, Hari Balakrishnan, Samuel R. Madden, and Michael Stonebraker. Fault-tolerance in the Borealis distributed stream processing system. *ACM Transactions on Database Systems*, 33(1):3:1–3:44, March 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fan:2008:IPX

[693] Wenfei Fan and Philip Bohannon. Information preserving XML schema embedding. *ACM Transactions on Database Systems*, 33(1):4:1–4:44, March 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sharaf:2008:AMP

[694] Mohamed A. Sharaf, Panos K. Chrysanthis, Alexandros Labrinidis, and Kirk Pruhs. Algorithms and metrics for processing multiple heterogeneous continuous queries. *ACM Transactions on Database Systems*, 33 (1):5:1–5:44, March 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fan:2008:CFD

[695] Wenfei Fan, Floris Geerts, Xibei Jia, and Anastasios Kementsietsidis. Conditional functional dependencies for capturing data inconsistencies. *ACM Transactions on Database Systems*, 33 (2):6:1–6:48, June 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jacox:2008:MSS

[696] Edwin H. Jacox and Hanan Samet. Metric space similarity joins. *ACM Transactions on Database Systems*, 33 (2):7:1–7:38, June 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

He:2008:COD

[697] Bingsheng He and Qiong Luo. Cache-oblivious databases: Limitations and opportunities. *ACM Transactions on Database Systems*, 33(2):8:1–8:42, June 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cormode:2008:ACQ

[698] Graham Cormode and Minos Garofalakis. Approximate continuous querying over distributed streams. *ACM Transactions on Database Systems*, 33 (2):9:1–9:??, June 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Eiter:2008:RLQ

[699] Thomas Eiter, Michael Fink, Gianluigi Greco, and Domenico Lembo. Repair localization for query answering from inconsistent databases. *ACM Transactions on Database Systems*, 33 (2):10:1–10:??, June 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fagin:2008:QIS

[700] Ronald Fagin, Phokion G. Kolaitis, Lucian Popa, and Wang-Chiew Tan. Quasi-inverses of schema mappings. *ACM Transactions on Database Systems*, 33(2):11:1–11:??, June 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zhang:2008:CTA

[701] Donghui Zhang, Alexander Markowetz, Vassilis J. Tsotras, Dimitrios Gunopulos, and Bernhard Seeger. On computing temporal aggregates with range predicates. *ACM Transactions on Database Systems*, 33(2):12:1–12:??, June 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Soliman:2008:PTR

[702] Mohamed A. Soliman, Ihab F. Ilyas, and Kevin Chen-Chuan Chang. Probabilistic top-k and ranking-aggregate queries. *ACM Transactions on Database Systems*, 33(3):13:1–13:??, August 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ke:2008:CPM

[703] Yiping Ke, James Cheng, and Wilfred Ng. Correlated pattern mining in quantitative databases. *ACM Transactions on Database Systems*, 33(3): 14:1–14:??, August 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Rusu:2008:SSJ

[704] Florin Rusu and Alin Dobra. Sketches for size of join estimation. *ACM Transactions on Database Systems*, 33(3): 15:1–15:??, August 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Xu:2008:CBS

[705] Fei Xu, Christopher Jermaine, and Alin Dobra. Confidence bounds for sampling-based group by estimates. *ACM Transactions on Database Systems*, 33(3):16:1–16:??, August 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

LeFevre:2008:WAA

[706] Kristen LeFevre, David J. DeWitt, and Raghu Ramakrishnan. Workload-aware anonymization techniques for large-scale datasets. *ACM Transactions on Database Systems*, 33(3): 17:1–17:??, August 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Karras:2008:HSO

[707] Panagiotis Karras and Nikos Mamoulis. Hierarchical synopses with optimal error guarantees. *ACM Transactions on Database Systems*, 33(3):18:1–18:??, August 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lester:2008:EOI

[708] Nicholas Lester, Alistair Moffat, and Justin Zobel. Efficient online index construction for text databases. *ACM Transactions on Database Systems*, 33 (3):19:1–19:??, August 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ozsoyoglu:2008:FTS

[709] Z. Meral Özsoyoğlu. Foreword to TODS SIGMOD/PODS/ICDT 2007 special issue. *ACM Transactions on Database Systems*, 33(4):20:1–20:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ooi:2008:IAS

[710] Beng Chin Ooi. Introduction to ACM SIGMOD 2007 special section. *ACM Transactions on Database Systems*, 33 (4):21:1–21:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Melnik:2008:CMB

[711] Sergey Melnik, Atul Adya, and Philip A. Bernstein. Compiling mappings to bridge applications and databases. *ACM Transactions on Database Systems*, 33(4):22:1–22:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jermaine:2008:SAQ

[712] Chris Jermaine, Subramanian Arumugam, Abhijit Pol, and Alin Dobra. Scalable approximate query processing with the DBO engine. *ACM Transactions on Database Systems*, 33(4): 23:1–23:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Libkin:2008:IPS

[713] Leonid Libkin. Introduction to the PODS 2007 special section. *ACM Transactions on Database Systems*, 33 (4):24:1–24:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fan:2008:ECX

[714] Wenfei Fan, Floris Geerts, and Frank Neven. Expressiveness and complexity of XML publishing transducers. *ACM Transactions on Database Systems*, 33(4):25:1–25:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jayram:2008:ESA

[715] T. S. Jayram, Andrew McGregor, S. Muthukrishnan, and Erik Vee. Estimating statistical aggregates on probabilistic data streams. *ACM Transactions on Database Systems*, 33(4): 26:1–26:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Schwentick:2008:IIS

[716] Thomas Schwentick and Dan Suciu. Introduction to ICDT 2007 special section. *ACM Transactions on Database Systems*, 33(4):27:1–27:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Buneman:2008:EIP

[717] Peter Buneman, James Cheney, and Stijn Vansummeren. On the expressiveness of implicit provenance in query

and update languages. *ACM Transactions on Database Systems*, 33(4): 28:1–28:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ghelli:2008:CAX

[718] Giorgio Ghelli, Kristoffer Rose, and Jérôme Siméon. Commutativity analysis for XML updates. *ACM Transactions on Database Systems*, 33(4): 29:1–29:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pavlou:2008:FAD

[719] Kyriacos E. Pavlou and Richard T. Snodgrass. Forensic analysis of database tampering. *ACM Transactions on Database Systems*, 33(4): 30:1–30:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bartolini:2008:ESB

[720] Ilaria Bartolini, Paolo Ciaccia, and Marco Patella. Efficient sort-based skyline evaluation. *ACM Transactions on Database Systems*, 33(4): 31:1–31:??, November 2008. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Mishra:2009:DQM

[721] Chaitanya Mishra and Nick Koudas. The design of a query monitoring system. *ACM Transactions on Database Systems*, 34(1):1:1–1:??, April 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cheng:2009:EQP

[722] James Cheng, Yiping Ke, and Wilfred Ng. Efficient query processing on graph databases. *ACM Transactions on Database Systems*, 34(1):2:1–2:??, April 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Spiegel:2009:TSA

[723] Joshua Spiegel and Neoklis Polyzotis. TuG synopses for approximate query answering. *ACM Transactions on Database Systems*, 34(1):3:1–3:??, April 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kramer:2009:SIC

[724] Jürgen Krämer and Bernhard Seeger. Semantics and implementation of continuous sliding window queries over data streams. *ACM Transactions on Database Systems*, 34(1):4:1–4:??, April 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jain:2009:QAO

[725] Alpa Jain and Panagiotis G. Ipeirotis. A quality-aware optimizer for information extraction. *ACM Transactions on Database Systems*, 34(1):5:1–5:??, April 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Considine:2009:RAA

[726] Jeffrey Considine, Marios Hadjieleftheriou, Feifei Li, John Byers, and George Kollios. Robust approximate aggregation in sensor data management systems. *ACM Transactions on Database*

Systems, 34(1):6:1–6:??, April 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Angiulli:2009:DOP

[727] Fabrizio Angiulli, Fabio Fassetti, and Luigi Palopoli. Detecting outlying properties of exceptional objects. *ACM Transactions on Database Systems*, 34 (1):7:1–7:??, April 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wong:2009:ABA

[728] Raymond Chi-Wing Wong, Ada Wai-Chee Fu, Ke Wang, and Jian Pei. Anonymization-based attacks in privacy-preserving data publishing. *ACM Transactions on Database Systems*, 34(2):8:1–8:??, June 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ghinita:2009:FED

[729] Gabriel Ghinita, Panagiotis Karras, Panos Kalnis, and Nikos Mamoulis. A framework for efficient data anonymization under privacy and accuracy constraints. *ACM Transactions on Database Systems*, 34(2):9:1–9:??, June 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hartmann:2009:ERA

[730] Sven Hartmann and Sebastian Link. Efficient reasoning about a robust XML key fragment. *ACM Transactions on Database Systems*, 34(2):10:1–10:??, June 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lin:2009:SII

[731] Yi Lin, Bettina Kemme, Ricardo Jiménez-Peris, Marta Patiño-Martínez, and José Enrique Armendáriz-Iñigo. Snapshot isolation and integrity constraints in replicated databases. *ACM Transactions on Database Systems*, 34 (2):11:1–11:??, June 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Su:2009:OOA

[732] Weifeng Su, Jiying Wang, and Frederick H. Lochovsky. ODE: Ontology-assisted data extraction. *ACM Transactions on Database Systems*, 34(2): 12:1–12:??, June 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Agarwal:2009:ISS

[733] Pankaj K. Agarwal, Junyi Xie, Jun Yang, and Hai Yu. Input-sensitive scalable continuous join query processing. *ACM Transactions on Database Systems*, 34(3):13:1–13:??, August 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sharifzadeh:2009:PSS

[734] Mehdi Sharifzadeh, Cyrus Shahabi, and Leyla Kazemi. Processing spatial skyline queries in both vector spaces and spatial network databases. *ACM Transactions on Database Systems*, 34 (3):14:1–14:??, August 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yi:2009:SSG

[735] Ke Yi, Feifei Li, Graham Cormode, Marios Hadjieleftheriou, George Kol-

lios, and Divesh Srivastava. Small synopses for group-by query verification on outsourced data streams. *ACM Transactions on Database Systems*, 34 (3):15:1–15:??, August 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Perez:2009:SCS

[736] Jorge Pérez, Marcelo Arenas, and Claudio Gutierrez. Semantics and complexity of SPARQL. *ACM Transactions on Database Systems*, 34(3): 16:1–16:??, August 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Markowetz:2009:KSR

[737] Alexander Markowetz, Yin Yang, and Dimitris Papadias. Keyword search over relational tables and streams. *ACM Transactions on Database Systems*, 34(3):17:1–17:??, August 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cohen:2009:ICP

[738] Sara Cohen, Benny Kimelfeld, and Yehoshua Sagiv. Incorporating constraints in probabilistic XML. *ACM Transactions on Database Systems*, 34 (3):18:1–18:??, August 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sasha:2009:FTS

[739] Dennis Sasha, Maurizio Lenzerini, and Z. Meral Özsoyoğlu. Foreword to TODS SIGMOD/PODS 2008 special issue. *ACM Transactions on Database Systems*, 34(4):19:1–19:??, December 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cahill:2009:SIS

[740] Michael J. Cahill, Uwe Röhm, and Alan D. Fekete. Serializable isolation for snapshot databases. *ACM Transactions on Database Systems*, 34(4): 20:1–20:??, December 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

He:2009:RQC

[741] Bingsheng He, Mian Lu, Ke Yang, Rui Fang, Naga K. Govindaraju, Qiong Luo, and Pedro V. Sander. Relational query coprocessing on graphics processors. *ACM Transactions on Database Systems*, 34(4):21:1–21:??, December 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Arenas:2009:RSM

[742] Marcelo Arenas, Jorge Pérez, and Cristian Riveros. The recovery of a schema mapping: Bringing exchanged data back. *ACM Transactions on Database Systems*, 34(4):22:1–22:??, December 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Abiteboul:2009:SAA

[743] Serge Abiteboul, Luc Segoufin, and Victor Vianu. Static analysis of active XML systems. *ACM Transactions on Database Systems*, 34(4): 23:1–23:??, December 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chow:2009:CQP

[744] Chi-Yin Chow, Mohamed F. Mokbel, and Walid G. Aref. Casper*: Query processing for location services without

compromising privacy. *ACM Transactions on Database Systems*, 34(4): 24:1–24:??, December 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Benedikt:2009:XRL

[745] Michael Benedikt and Christoph Koch. From XQuery to relational logics. *ACM Transactions on Database Systems*, 34(4):25:1–25:??, December 2009. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ghanem:2010:SVD

[746] Thanaa M. Ghanem, Ahmed K. Elmagarmid, Per-Åke Larson, and Walid G. Aref. Supporting views in data stream management systems. *ACM Transactions on Database Systems*, 35(1): 1:1–1:??, February 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wu:2010:AML

[747] Kesheng Wu, Arie Shoshani, and Kurt Stockinger. Analyses of multi-level and multi-component compressed bitmap indexes. *ACM Transactions on Database Systems*, 35(1):2:1–2:??, February 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lian:2010:RSS

[748] Xiang Lian and Lei Chen. Reverse skyline search in uncertain databases. *ACM Transactions on Database Systems*, 35(1):3:1–3:??, February 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Augsten:2010:GDB

[749] Nikolaus Augsten, Michael Böhlen, and Johann Gamper. The *pq*-gram distance between ordered labeled trees. *ACM Transactions on Database Systems*, 35(1):4:1–4:??, February 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kolahi:2010:ITA

[750] Solmaz Kolahi and Leonid Libkin. An information-theoretic analysis of worst-case redundancy in database design. *ACM Transactions on Database Systems*, 35(1):5:1–5:??, February 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Schnaitter:2010:OAE

[751] Karl Schnaitter and Neoklis Polyzotis. Optimal algorithms for evaluating rank joins in database systems. *ACM Transactions on Database Systems*, 35 (1):6:1–6:??, February 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Soror:2010:AVM

[752] Ahmed A. Soror, Umar Farooq Minhas, Ashraf Aboulnaga, Kenneth Salem, Peter Kokosielis, and Sunil Kamath. Automatic virtual machine configuration for database workloads. *ACM Transactions on Database Systems*, 35(1): 7:1–7:??, February 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Xiao:2010:TAT

[753] Xiaokui Xiao, Yufei Tao, and Nick Koudas. Transparent anonymization: Thwarting adversaries who know

the algorithm. *ACM Transactions on Database Systems*, 35(2):8:1–8:??, April 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

U:2010:OMB

[754] Leong Hou U., Kyriakos Mouratidis, Man Lung Yiu, and Nikos Mamoulis. Optimal matching between spatial datasets under capacity constraints. *ACM Transactions on Database Systems*, 35(2):9:1–9:??, April 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Liu:2010:RSI

[755] Ziyang Liu and Yi Chen. Return specification inference and result clustering for keyword search on XML. *ACM Transactions on Database Systems*, 35 (2):10:1–10:??, April 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bex:2010:ICR

[756] Geert Jan Bex, Frank Neven, Thomas Schwentick, and Stijn Vansummeren. Inference of concise regular expressions and DTDs. *ACM Transactions on Database Systems*, 35(2):11:1–11:??, April 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

DeCapitaniDiVimercati:2010:EPR

[757] Sabrina De Capitani Di Vimercati, Sara Foresti, Sushil Jajodia, Stefano Paraboschi, and Pierangela Samarati. Encryption policies for regulating access to outsourced data. *ACM Transactions on Database Systems*, 35(2): 12:1–12:??, April 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Koutrika:2010:PQB

[758] Georgia Koutrika and Yannis Ioannidis. Personalizing queries based on networks of composite preferences. *ACM Transactions on Database Systems*, 35 (2):13:1–13:??, April 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Flesca:2010:QRI

[759] Sergio Flesca, Filippo Furfaro, and Francesco Parisi. Querying and repairing inconsistent numerical databases. *ACM Transactions on Database Systems*, 35(2):14:1–14:??, April 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Liu:2010:CIE

[760] Hongyan Liu, Xiaoyu Wang, and Yinghui Yang. Comments on "An integrated efficient solution for computing frequent and top-k elements in data streams". *ACM Transactions on Database Systems*, 35(2):15:1–15:??, April 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). See [648].

Graefe:2010:SBT

[761] Goetz Graefe. A survey of B-tree locking techniques. *ACM Transactions on Database Systems*, 35(3):16:1–16:??, July 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chen:2010:COI

[762] Su Chen, Mario A. Nascimento, Beng Chin Ooi, and Kian-Lee Tan.

Continuous online index tuning in moving object databases. *ACM Transactions on Database Systems*, 35(3):17:1–17:??, July 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hu:2010:PAL

[763] Haibo Hu, Jianliang Xu, Sai Tung On, Jing Du, and Joseph Kee-Yin Ng. Privacy-aware location data publishing. *ACM Transactions on Database Systems*, 35(3):18:1–18:??, July 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Liu:2010:IXS

[764] Ziyang Liu, Yu Huang, and Yi Chen. Improving XML search by generating and utilizing informative result snippets. *ACM Transactions on Database Systems*, 35(3):19:1–19:??, July 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Tao:2010:EAN

[765] Yufei Tao, Ke Yi, Cheng Sheng, and Panos Kalnis. Efficient and accurate nearest neighbor and closest pair search in high-dimensional space. *ACM Transactions on Database Systems*, 35 (3):20:1–20:??, July 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Nash:2010:VQD

[766] Alan Nash, Luc Segoufin, and Victor Vianu. Views and queries: Determinacy and rewriting. *ACM Transactions on Database Systems*, 35(3):21:1–21:??, July 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Denecker:2010:TLR

[767] Marc Denecker, Álvaro Cortés-Calabuig, Maurice Bruynooghes, and Ofer Arieli. Towards a logical reconstruction of a theory for locally closed databases. *ACM Transactions on Database Systems*, 35(3):22:1–22:??, July 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ozsoyoglu:2010:FTI

[768] Z. Meral Özsoyoglu. Foreword to TODS invited papers issue. *ACM Transactions on Database Systems*, 35 (4):23:1–23:??, November 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ivanova:2010:ARI

[769] Milena G. Ivanova, Martin L. Kersten, Niels J. Nes, and Romulo A. P. Gonçalves. An architecture for recycling intermediates in a column-store. *ACM Transactions on Database Systems*, 35(4):24:1–24:??, November 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ghoting:2010:EAS

[770] Amol Ghoting and Konstantin Makarychev. I/O efficient algorithms for serial and parallel suffix tree construction. *ACM Transactions on Database Systems*, 35 (4):25:1–25:??, November 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Berinde:2010:SOH

[771] Radu Berinde, Piotr Indyk, Graham Cormode, and Martin J. Strauss. Space-optimal heavy hitters with

strong error bounds. *ACM Transactions on Database Systems*, 35(4): 26:1–26:??, November 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fan:2010:RIC

[772] Wenfei Fan and Floris Geerts. Relative information completeness. *ACM Transactions on Database Systems*, 35 (4):27:1–27:??, November 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fletcher:2010:TTS

[773] George H. L. Fletcher, Jan Van Den Bussche, Dirk Van Gucht, and Stijn Vansummeren. Towards a theory of search queries. *ACM Transactions on Database Systems*, 35(4):28:1–28:??, November 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bjorklund:2010:IXE

[774] Henrik Björklund, Wouter Gelade, and Wim Martens. Incremental XPath evaluation. *ACM Transactions on Database Systems*, 35(4):29:1–29:??, November 2010. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wang:2011:OPD

[775] Ting Wang and Ling Liu. Output privacy in data mining. *ACM Transactions on Database Systems*, 36 (1):1:1–1:??, March 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Nergiz:2011:IA

[776] Mehmet Ercan Nergiz, Acar Tamersoy, and Yucel Saygin. Instant anonymization. *ACM Transactions on Database Systems*, 36(1):2:1–2:??, March 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gross-Amblard:2011:QPW

[777] David Gross-Amblard. Query-preserving watermarking of relational databases and XML documents. *ACM Transactions on Database Systems*, 36 (1):3:1–3:??, March 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Termehchy:2011:USI

[778] Arash Termehchy and Marianne Winslett. Using structural information in XML keyword search effectively. *ACM Transactions on Database Systems*, 36(1):4:1–4:??, March 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cautis:2011:QXD

[779] Bogdan Cautis, Alin Deutsch, Nicola Onose, and Vasilis Vassalos. Querying XML data sources that export very large sets of views. *ACM Transactions on Database Systems*, 36(1):5:1–5:??, March 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Liu:2011:GSW

[780] Ziyang Liu, Susan B. Davidson, and Yi Chen. Generating sound workflow views for correct provenance analysis. *ACM Transactions on Database Systems*, 36(1):6:1–6:??, March 2011.

CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jin:2011:PTE

[781] Ruoming Jin, Ning Ruan, Yang Xiang, and Haixun Wang. Path-tree: An efficient reachability indexing scheme for large directed graphs. *ACM Transactions on Database Systems*, 36 (1):7:1–7:??, March 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Law:2011:RLD

[782] Yan-Nei Law, Haixun Wang, and Carlo Zaniolo. Relational languages and data models for continuous queries on sequences and data streams. *ACM Transactions on Database Systems*, 36 (2):8:1–8:??, May 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gao:2011:CNN

[783] Yunjun Gao, Baihua Zheng, Gang Chen, Chun Chen, and Qing Li. Continuous nearest-neighbor search in the presence of obstacles. *ACM Transactions on Database Systems*, 36(2):9:1–9:??, May 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yiu:2011:DAR

[784] Man Lung Yiu, Christian S. Jensen, Jesper Møller, and Hua Lu. Design and analysis of a ranking approach to private location-based services. *ACM Transactions on Database Systems*, 36 (2):10:1–10:??, May 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fagin:2011:RDE

[785] Ronald Fagin, Phokion G. Kolaitis, Lucian Popa, and Wang-Chiew Tan. Reverse data exchange: Coping with nulls. *ACM Transactions on Database Systems*, 36(2):11:1–11:??, May 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Atallah:2011:AEA

[786] Mikhail J. Atallah, Yinian Qi, and Hao Yuan. Asymptotically efficient algorithms for skyline probabilities of uncertain data. *ACM Transactions on Database Systems*, 36(2):12:1–12:28, May 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lee:2011:RAF

[787] Tony T. Lee and Tong Ye. A relational approach to functional decomposition of logic circuits. *ACM Transactions on Database Systems*, 36 (2):13:1–13:??, May 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hernich:2011:CWD

[788] André Hernich, Leonid Libkin, and Nicole Schweikardt. Closed world data exchange. *ACM Transactions on Database Systems*, 36(2):14:1–14:40, May 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Xiao:2011:ESJ

[789] Chuan Xiao, Wei Wang, Xuemin Lin, Jeffrey Xu Yu, and Guoren Wang. Efficient similarity joins for

near-duplicate detection. *ACM Transactions on Database Systems*, 36(3): 15:1–15:41, August 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Song:2011:DDR

[790] Shaoxu Song and Lei Chen. Differential dependencies: Reasoning and discovery. *ACM Transactions on Database Systems*, 36(3):16:1–16:41, August 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). See comments [911] and response [958].

Papapetrou:2011:EBS

[791] Panagiotis Papapetrou, Vassilis Athitsos, Michalis Potamias, George Kollios, and Dimitrios Gunopulos. Embedding-based subsequence matching in time-series databases. *ACM Transactions on Database Systems*, 36(3):17:1–17:39, August 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jampani:2011:MCD

[792] Ravi Jampani, Fei Xu, Mingxi Wu, Luis Perez, Chris Jermaine, and Peter J. Haas. The Monte Carlo database system: Stochastic analysis close to the data. *ACM Transactions on Database Systems*, 36(3): 18:1–18:41, August 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Stefanidis:2011:SRC

[793] Kostas Stefanidis, Georgia Koutrika, and Evaggelia Pitoura. A survey on representation, composition and application of preferences in database systems. *ACM Transactions on Database Systems*, 36(3):19:1–19:45, August 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ozsoyoglu:2011:FTI

[794] Z. Meral Özsoyoglu. Foreword to TODS invited papers issue 2011. *ACM Transactions on Database Systems*, 36 (4):20:1–20:2, December 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cheng:2011:FMC

[795] James Cheng, Yiping Ke, Ada Wai-Chee Fu, Jeffrey Xu Yu, and Linhong Zhu. Finding maximal cliques in massive networks. *ACM Transactions on Database Systems*, 36(4): 21:1–21:34, December 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kim:2011:DFA

[796] Changkyu Kim, Jatin Chhugani, Nadathur Satish, Eric Sedlar, Anthony D. Nguyen, Tim Kaldewey, Victor W. Lee, Scott A. Brandt, and Pradeep Dubey. Designing fast architecture-sensitive tree search on modern multicore/many-core processors. *ACM Transactions on Database Systems*, 36 (4):22:1–22:34, December 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Alexe:2011:CSM

[797] Bogdan Alexe, Balder ten Cate, Phokion G. Kolaitis, and Wang-Chiew Tan. Characterizing schema mappings via data examples. *ACM Transactions on Database Systems*, 36(4):

23:1–23:48, December 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cohen:2011:BET

[798] Sara Cohen and Yaacov Y. Weiss. Bag equivalence of tree patterns. *ACM Transactions on Database Systems*, 36 (4):24:1–24:35, December 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Abiteboul:2011:CCD

[799] Serge Abiteboul, T.-H. Hubert Chan, Evgeny Kharlamov, Werner Nutt, and Pierre Senellart. Capturing continuous data and answering aggregate queries in probabilistic XML. *ACM Transactions on Database Systems*, 36(4): 25:1–25:45, December 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bai:2011:CPT

[800] Xiao Bai, Rachid Guerraoui, Anne-Marie Kermarrec, and Vincent Leroy. Collaborative personalized top-k processing. *ACM Transactions on Database Systems*, 36(4):26:1–26:38, December 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Goncalves:2011:DCQ

[801] Romulo Goncalves and Martin Kersten. The Data Cyclotron query processing scheme. *ACM Transactions on Database Systems*, 36(4):27:1–27:35, December 2011. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Graefe:2012:SBT

[802] Goetz Graefe. A survey of B-tree logging and recovery techniques. *ACM Transactions on Database Systems*, 37 (1):1:1–1:35, February 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Martinenghi:2012:PMR

[803] Davide Martinenghi and Marco Tagliasacchi. Proximity measures for rank join. *ACM Transactions on Database Systems*, 37(1):2:1–2:46, February 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Nuray-Turan:2012:AOS

[804] Rabia Nuray-Turan, Dmitri V. Kalashnikov, Sharad Mehrotra, and Yaming Yu. Attribute and object selection queries on objects with probabilistic attributes. *ACM Transactions on Database Systems*, 37(1): 3:1–3:??, February 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Liu:2012:DSR

[805] Ziyang Liu and Yi Chen. Differentiating search results on structured data. *ACM Transactions on Database Systems*, 37(1):4:1–4:??, February 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yang:2012:SES

[806] Di Yang, Elke A. Rundensteiner, and Matthew O. Ward. Shared execution strategy for neighbor-based pattern mining requests over streaming windows. *ACM Transactions on Database Systems*, 37(1):5:1–5:??,

February 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Re:2012:UCE

[807] Christopher Ré and D. Suciu. Understanding cardinality estimation using entropy maximization. *ACM Transactions on Database Systems*, 37(1): 6:1–6:??, February 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Nuray-Turan:2012:EWQ

[808] Rabia Nuray-Turan, Dmitri V. Kalashnikov, and Sharad Mehrotra. Exploiting Web querying for Web people search. *ACM Transactions on Database Systems*, 37(1):7:1–7:??, February 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Schneider:2012:CDB

[809] Markus Schneider, Tao Chen, Ganesh Viswanathan, and Wenjie Yuan. Cardinal directions between complex regions. *ACM Transactions on Database Systems*, 37(2):8:1–8:??, May 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wijsen:2012:CCQ

[810] Jef Wijsen. Certain conjunctive query answering in first-order logic. *ACM Transactions on Database Systems*, 37 (2):9:1–9:??, May 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Abiteboul:2012:CWS

[811] Serge Abiteboul, Pierre Bourhis, and Victor Vianu. Comparing workflow specification languages: a matter of views. *ACM Transactions on Database Systems*, 37(2):10:1–10:??, May 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Tassa:2012:SDC

[812] Tamir Tassa and Ehud Gudes. Secure distributed computation of anonymized views of shared databases. *ACM Transactions on Database Systems*, 37 (2):11:1–11:??, May 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sheng:2012:EAA

[813] Cheng Sheng, Yufei Tao, and Jianzhong Li. Exact and approximate algorithms for the most connected vertex problem. *ACM Transactions on Database Systems*, 37(2):12:1–12:??, May 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hartmann:2012:IPD

[814] Sven Hartmann and Sebastian Link. The implication problem of data dependencies over SQL table definitions: Axiomatic, algorithmic and logical characterizations. *ACM Transactions on Database Systems*, 37(2):13:1–13:??, May 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zhang:2012:SS

[815] Wenjie Zhang, Xuemin Lin, Ying Zhang, Muhammad Aamir Cheema, and Qing Zhang. Stochastic skylines. *ACM Transactions on Database Systems*, 37(2):14:1–14:??, May 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Xia:2012:OSS

[816] Tian Xia, Donghui Zhang, Zheng Fang, Cindy Chen, and Jie Wang. Online subspace skyline query processing using the Compressed SkyCube. *ACM Transactions on Database Systems*, 37 (2):15:1–15:??, May 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ozsoyoglu:2012:Fa

[817] Z. Meral Özsoyoglu. Foreword. *ACM Transactions on Database Systems*, 37 (3):16:1–16:??, August 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Graefe:2012:FBT

[818] Goetz Graefe, Hideaki Kimura, and Harumi Kuno. Foster B-trees. *ACM Transactions on Database Systems*, 37 (3):17:1–17:??, August 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wang:2012:RAT

[819] Junhu Wang and Jeffrey Xu Yu. Revisiting answering tree pattern queries using views. *ACM Transactions on Database Systems*, 37(3):18:1–18:??, August 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

David:2012:ERA

[820] Claire David, Leonid Libkin, and Tony Tan. Efficient reasoning about data trees via integer linear programming. *ACM Transactions on Database Systems*, 37(3):19:1–19:??, August 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lemire:2012:RRB

[821] Daniel Lemire, Owen Kaser, and Eduardo Gutarra. Reordering rows for better compression: Beyond the lexicographic order. *ACM Transactions on Database Systems*, 37(3):20:1–20:??, August 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gupta:2012:EQE

[822] Nitin Gupta, Lucja Kot, Sudip Roy, Gabriel Bender, Johannes Gehrke, and Christoph Koch. Entangled queries: Enabling declarative data-driven coordination. *ACM Transactions on Database Systems*, 37(3):21:1–21:??, August 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Damaggio:2012:ASD

[823] Elio Damaggio, Alin Deutsch, and Victor Vianu. Artifact systems with data dependencies and arithmetic. *ACM Transactions on Database Systems*, 37 (3):22:1–22:??, August 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ozsoyoglu:2012:Fb

[824] Z. Meral Özsoyoglu. Foreword. *ACM Transactions on Database Systems*, 37 (4):23:1–23:??, December 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kimelfeld:2012:MCV

[825] Benny Kimelfeld, Jan Vondrák, and Ryan Williams. Maximizing conjunctive views in deletion propagation.

ACM Transactions on Database Systems, 37(4):24:1–24:??, December 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fan:2012:DCD

[826] Wenfei Fan, Floris Geerts, and Jef Wijsen. Determining the currency of data. *ACM Transactions on Database Systems*, 37(4):25:1–25:??, December 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sheng:2012:WCE

[827] Cheng Sheng and Yufei Tao. Worst-case I/O-efficient skyline algorithms. *ACM Transactions on Database Systems*, 37(4):26:1–26:??, December 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Li:2012:SPS

[828] Boduo Li, Edward Mazur, Yanlei Diao, Andrew McGregor, and Prashant Shenoy. SCALLA: a platform for scalable one-pass analytics using MapReduce. *ACM Transactions on Database Systems*, 37(4):27:1–27:??, December 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Li:2012:WHT

[829] Yinan Li, Jignesh M. Patel, and Allison Terrell. WHAM: a high-throughput sequence alignment method. *ACM Transactions on Database Systems*, 37 (4):28:1–28:??, December 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Xie:2012:FAS

[830] Kexin Xie, Ke Deng, Shuo Shang, Xiaofang Zhou, and Kai Zheng. Finding alternative shortest paths in spatial networks. *ACM Transactions on Database Systems*, 37(4):29:1–29:??, December 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Amsterdamer:2012:PM

[831] Yael Amsterdamer, Daniel Deutch, Tova Milo, and Val Tannen. On provenance minimization. *ACM Transactions on Database Systems*, 37(4): 30:1–30:??, December 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Barcelo:2012:ELP

[832] Pablo Barceló, Leonid Libkin, Anthony W. Lin, and Peter T. Wood. Expressive languages for path queries over graph-structured data. *ACM Transactions on Database Systems*, 37(4): 31:1–31:??, December 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cong:2012:PED

[833] Gao Cong, Wenfei Fan, Anastasios Kementsietsidis, Jianzhong Li, and Xianmin Liu. Partial evaluation for distributed XPath query processing and beyond. *ACM Transactions on Database Systems*, 37(4):32:1–32:??, December 2012. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Papavasileiou:2013:HLC

[834] Vicky Papavasileiou, Giorgos Flouris, Irini Fundulaki, Dimitris Kotzinos, and Vassilis Christophides. High-level change detection in RDF(S) KBs. *ACM Transactions on Database Systems*, 38 (1):1:1–1:??, April 2013. CODEN

ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jaiswal:2013:SME

[835] Anuj Jaiswal, David J. Miller, and Prasenjit Mitra. Schema matching and embedded value mapping for databases with opaque column names and mixed continuous and discrete-valued data fields. *ACM Transactions on Database Systems*, 38(1):2:1–2:??, April 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Grust:2013:OSQ

[836] Torsten Grust and Jan Rittinger. Observing SQL queries in their natural habitat. *ACM Transactions on Database Systems*, 38(1):3:1–3:??, April 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Benzaken:2013:OXQ

[837] Véronique Benzaken, Giuseppe Castagna, Dario Colazzo, and Kim Nguy´ên. Optimizing XML querying using type-based document projection. *ACM Transactions on Database Systems*, 38 (1):4:1–4:??, April 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Das:2013:EES

[838] Sudipto Das, Divyakant Agrawal, and Amr El Abbadi. ElasTraS: an elastic, scalable, and self-managing transactional database for the cloud. *ACM Transactions on Database Systems*, 38 (1):5:1–5:??, April 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Franceschet:2013:GTA

[839] Massimo Franceschet, Donatella Gubiani, Angelo Montanari, and Carla Piazza. A graph-theoretic approach to map conceptual designs to XML schemas. *ACM Transactions on Database Systems*, 38(1):6:1–6:??, April 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wu:2013:MSK

[840] Dingming Wu, Man Lung Yiu, and Christian S. Jensen. Moving spatial keyword queries: Formulation, methods, and analysis. *ACM Transactions on Database Systems*, 38(1):7:1–7:??, April 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sadoghi:2013:AOB

[841] Mohammad Sadoghi and Hans-Arno Jacobsen. Analysis and optimization for Boolean expression indexing. *ACM Transactions on Database Systems*, 38 (2):8:1–8:??, June 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Li:2013:PBM

[842] Guoliang Li, Dong Deng, and Jianhua Feng. A partition-based method for string similarity joins with edit-distance constraints. *ACM Transactions on Database Systems*, 38(2):9:1–9:??, June 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Catallo:2013:TKD

[843] Ilio Catallo, Eleonora Ciceri, Piero Fraternali, Davide Martinenghi, and

Marco Tagliasacchi. Top-k diversity queries over bounded regions. *ACM Transactions on Database Systems*, 38 (2):10:1–10:??, June 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fazzinga:2013:RDC

[844] Bettina Fazzinga, Sergio Flesca, Filippo Furfaro, and Elio Masciari. RFID-data compression for supporting aggregate queries. *ACM Transactions on Database Systems*, 38(2):11:1–11:??, June 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pavlou:2013:GDF

[845] Kyriacos E. Pavlou and Richard T. Snodgrass. Generalizing database forensics. *ACM Transactions on Database Systems*, 38(2):12:1–12:??, June 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cheney:2013:RFN

[846] James Cheney. Revisiting "forward node-selecting queries over trees". *ACM Transactions on Database Systems*, 38(2):13:1–13:??, June 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bonifati:2013:AIM

[847] Angela Bonifati, Martin Goodfellow, Ioana Manolescu, and Domenica Sileo. Algebraic incremental maintenance of XML views. *ACM Transactions on Database Systems*, 38(3):14:1–14:??, August 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Colazzo:2013:ALI

[848] Dario Colazzo, Giorgio Ghelli, Luca Pardini, and Carlo Sartiani. Almost-linear inclusion for XML regular expression types. *ACM Transactions on Database Systems*, 38(3):15:1–15:??, August 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Qin:2013:ASS

[849] Jianbin Qin, Wei Wang, Chuan Xiao, Yifei Lu, Xuemin Lin, and Haixun Wang. Asymmetric signature schemes for efficient exact edit similarity query processing. *ACM Transactions on Database Systems*, 38(3):16:1–16:??, August 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Levandoski:2013:FEP

[850] Justin J. Levandoski, Ahmed Eldawy, Mohamed F. Mokbel, and Mohamed E. Khalefa. Flexible and extensible preference evaluation in database systems. *ACM Transactions on Database Systems*, 38(3):17:1–17:??, August 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fan:2013:IGP

[851] Wenfei Fan, Xin Wang, and Yinghui Wu. Incremental graph pattern matching. *ACM Transactions on Database Systems*, 38(3):18:1–18:??, August 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Karvounarakis:2013:CDS

[852] Grigoris Karvounarakis, Todd J. Green, Zachary G. Ives, and Val Tan-

nen. Collaborative data sharing via update exchange and provenance. *ACM Transactions on Database Systems*, 38 (3):19:1–19:??, August 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ozsoyoglu:2013:FIP

[853] Z. Meral Özsoyoglu. Foreword to invited papers issue. *ACM Transactions on Database Systems*, 38(4): 20:1–20:??, November 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Mozafari:2013:HPC

[854] Barzan Mozafari, Kai Zeng, Loris D'antoni, and Carlo Zaniolo. High-performance complex event processing over hierarchical data. *ACM Transactions on Database Systems*, 38(4): 21:1–21:??, November 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sarma:2013:CTL

[855] Anish Das Sarma, Hongrae Lee, Hector Gonzalez, Jayant Madhavan, and Alon Halevy. Consistent thinning of large geographical data for map visualization. *ACM Transactions on Database Systems*, 38(4):22:1–22:??, November 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Teubner:2013:XFB

[856] Jens Teubner, Louis Woods, and Chongling Nie. XLynx — an FPGA-based XML filter for hybrid XQuery processing. *ACM Transactions on Database Systems*, 38(4):23:1–23:??, November 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Losemann:2013:CRE

[857] Katja Losemann and Wim Martens. The complexity of regular expressions and property paths in SPARQL. *ACM Transactions on Database Systems*, 38 (4):24:1–24:??, November 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Letelier:2013:SAO

[858] Andrés Letelier, Jorge Pérez, Reinhard Pichler, and Sebastian Skritek. Static analysis and optimization of Semantic Web queries. *ACM Transactions on Database Systems*, 38(4): 25:1–25:??, November 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Agarwal:2013:MS

[859] Pankaj K. Agarwal, Graham Cormode, Zengfeng Huang, Jeff M. Phillips, Zhewei Wei, and Ke Yi. Mergeable summaries. *ACM Transactions on Database Systems*, 38(4):26:1–26:??, November 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Konrad:2013:VXD

[860] Christian Konrad and Frédéric Magniez. Validating XML documents in the streaming model with external memory. *ACM Transactions on Database Systems*, 38(4):27:1–27:??, November 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cate:2013:LSM

[861] Balder Ten Cate, Víctor Dalmau, and Phokion G. Kolaitis. Learning schema mappings. *ACM Transactions on Database Systems*, 38(4): 28:1–28:??, November 2013. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kostylev:2014:CAS

[862] Egor V. Kostylev, Juan L. Reutter, and András Z. Salamon. Classification of annotation semirings over containment of conjunctive queries. *ACM Transactions on Database Systems*, 39 (1):1:1–1:??, January 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yi:2014:ISQ

[863] Ke Yi, Lu Wang, and Zhewei Wei. Indexing for summary queries: Theory and practice. *ACM Transactions on Database Systems*, 39(1):2:1–2:??, January 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kifer:2014:PFM

[864] Daniel Kifer and Ashwin Machanavajjhala. Pufferfish: a framework for mathematical privacy definitions. *ACM Transactions on Database Systems*, 39 (1):3:1–3:??, January 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ma:2014:SSC

[865] Shuai Ma, Yang Cao, Wenfei Fan, Jinpeng Huai, and Tianyu Wo. Strong simulation: Capturing topology in graph pattern matching. *ACM Transactions on Database Systems*, 39(1): 4:1–4:??, January 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gatterbauer:2014:OBP

[866] Wolfgang Gatterbauer and Dan Suciu. Oblivious bounds on the probability of Boolean functions. *ACM Transactions on Database Systems*, 39 (1):5:1–5:??, January 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fang:2014:MOP

[867] Qiong Fang, Wilfred Ng, Jianlin Feng, and Yuliang Li. Mining order-preserving submatrices from probabilistic matrices. *ACM Transactions on Database Systems*, 39(1):6:1–6:??, January 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wang:2014:ESS

[868] Jiannan Wang, Guoliang Li, and Jianhua Feng. Extending string similarity join to tolerant fuzzy token matching. *ACM Transactions on Database Systems*, 39(1):7:1–7:??, January 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Sen:2014:DRM

[869] Siddhartha Sen and Robert E. Tarjan. Deletion without rebalancing in multiway search trees. *ACM Transactions on Database Systems*, 39(1): 8:1–8:??, January 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Nekrich:2014:ERS

[870] Yakov Nekrich. Efficient range searching for categorical and plain data. *ACM Transactions on Database Systems*, 39 (1):9:1–9:??, January 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Xu:2014:OCP

[871] Pan Xu and Srikanta Tirthapura. Optimality of clustering properties of space-filling curves. *ACM Transactions on Database Systems*, 39(2):10:1–10:??, May 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Thomson:2014:FDT

[872] Alexander Thomson, Thaddeus Diamond, Shu-Chun Weng, Kun Ren, Philip Shao, and Daniel J. Abadi. Fast distributed transactions and strongly consistent replication for OLTP database systems. *ACM Transactions on Database Systems*, 39(2): 11:1–11:??, May 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Nykiel:2014:SAM

[873] Tomasz Nykiel, Michalis Potamias, Chaitanya Mishra, George Kollios, and Nick Koudas. Sharing across multiple MapReduce jobs. *ACM Transactions on Database Systems*, 39(2):12:1–12:??, May 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lu:2014:EAC

[874] Ying Lu, Jiaheng Lu, Gao Cong, Wei Wu, and Cyrus Shahabi. Efficient algorithms and cost models for reverse spatial-keyword k-nearest neighbor search. *ACM Transactions on Database Systems*, 39(2):13:1–13:??, May 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bartolini:2014:DPW

[875] Ilaria Bartolini, Paolo Ciaccia, and Marco Patella. Domination in the probabilistic world: Computing skylines for arbitrary correlations and ranking semantics. *ACM Transactions on Database Systems*, 39(2):14:1–14:??, May 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Deng:2014:CQR

[876] Ting Deng and Wenfei Fan. On the complexity of query result diversification. *ACM Transactions on Database Systems*, 39(2):15:1–15:??, May 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Giatrakos:2014:DGQ

[877] Nikos Giatrakos, Antonios Deligiannakis, Minos Garofalakis, Izchak Sharfman, and Assaf Schuster. Distributed geometric query monitoring using prediction models. *ACM Transactions on Database Systems*, 39(2):16:1–16:??, May 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lei:2014:RDQ

[878] Chuan Lei and Elke A. Rundensteiner. Robust distributed query processing for streaming data. *ACM Transactions on Database Systems*, 39(2):17:1–17:??, May 2014. CODEN ATDSD3. ISSN

0362-5915 (print), 1557-4644 (electronic).

Jensen:2014:E

[879] Christian S. Jensen. Editorial. *ACM Transactions on Database Systems*, 39 (3):18:1–18:??, September 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zhang:2014:TPI

[880] Rui Zhang, Jianzhong Qi, Martin Stradling, and Jin Huang. Towards a painless index for spatial objects. *ACM Transactions on Database Systems*, 39 (3):19:1–19:??, September 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Tatti:2014:FRI

[881] Nikolaj Tatti, Fabian Moerchen, and Toon Calders. Finding robust itemsets under subsampling. *ACM Transactions on Database Systems*, 39(3): 20:1–20:??, September 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Choi:2014:MRS

[882] Dong-Wan Choi, Chin-Wan Chung, and Yufei Tao. Maximizing range sum in external memory. *ACM Transactions on Database Systems*, 39(3): 21:1–21:??, September 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Karwa:2014:PAG

[883] Vishesh Karwa, Sofya Raskhodnikova, Adam Smith, and Grigory Yaroslavtsev. Private analysis of graph structure. *ACM Transactions on Database Systems*, 39(3):22:1–22:??, September 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pang:2014:PPA

[884] Hweehwa Pang and Xuhua Ding. Privacy-preserving ad-hoc equi-join on outsourced data. *ACM Transactions on Database Systems*, 39(3):23:1–23:??, September 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Malvestuto:2014:JLO

[885] Francesco M. Malvestuto. A join-like operator to combine data cubes and answer queries from multiple data cubes. *ACM Transactions on Database Systems*, 39(3):24:1–24:??, September 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gottlob:2014:QRO

[886] Georg Gottlob, Giorgio Orsi, and Andreas Pieris. Query rewriting and optimization for ontological databases. *ACM Transactions on Database Systems*, 39(3):25:1–25:??, September 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jensen:2014:FIA

[887] Christian S. Jensen. Foreword to invited articles issue. *ACM Transactions on Database Systems*, 39(4): 26:1–26:??, December 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Hu:2014:EAT

[888] Xiaocheng Hu, Yufei Tao, and Chin-Wan Chung. I/O-efficient algorithms on triangle listing and counting. *ACM Transactions on Database Systems*, 39

(4):27:1–27:??, December 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Arenas:2014:DXK

[889] Marcelo Arenas, Jonny Daenen, Frank Neven, Martin Ugarte, Jan Van Den Bussche, and Stijn Vansummeren. Discovering XSD keys from XML data. *ACM Transactions on Database Systems*, 39(4):28:1–28:??, December 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jung:2014:SLM

[890] Hyungsoo Jung, Hyuck Han, Alan Fekete, Gernot Heiser, and Heon Y. Yeom. A scalable lock manager for multicores. *ACM Transactions on Database Systems*, 39(4):29:1–29:??, December 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Papadopoulos:2014:LQA

[891] Stavros Papadopoulos, Graham Cormode, Antonios Deligiannakis, and Minos Garofalakis. Lightweight query authentication on streams. *ACM Transactions on Database Systems*, 39(4): 30:1–30:??, December 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gheerbrant:2014:NEQ

[892] Amélie Gheerbrant, Leonid Libkin, and Cristina Sirangelo. Naïve evaluation of queries over incomplete databases. *ACM Transactions on Database Systems*, 39(4):31:1–31:??, December 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kimelfeld:2014:CMM

[893] Benny Kimelfeld and Phokion G. Kolaitis. The complexity of mining maximal frequent subgraphs. *ACM Transactions on Database Systems*, 39(4): 32:1–32:??, December 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bienvenu:2014:OBD

[894] Meghyn Bienvenu, Balder Ten Cate, Carsten Lutz, and Frank Wolter. Ontology-based data access: a study through disjunctive Datalog, CSP, and MMSNP. *ACM Transactions on Database Systems*, 39(4):33:1–33:??, December 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Li:2014:TPP

[895] Chao Li, Daniel Yang Li, Gerome Miklau, and Dan Suciu. A theory of pricing private data. *ACM Transactions on Database Systems*, 39(4): 34:1–34:??, December 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Davidson:2014:TCN

[896] Susan Davidson, Sanjeev Khanna, Tova Milo, and Sudeepa Roy. Top-k and clustering with noisy comparisons. *ACM Transactions on Database Systems*, 39(4):35:1–35:??, December 2014. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jensen:2015:EUE

[897] Christian S. Jensen. Editorial: Updates to the editorial board. *ACM Transactions on Database Systems*, 40

(1):1:1–1:??, March 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pripuzic:2015:TSE

[898] Kresimir Pripuzić, Ivana Podnar Zarko, and Karl Aberer. Time- and space-efficient sliding window top-k query processing. *ACM Transactions on Database Systems*, 40(1):1:1–1:??, March 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Olteanu:2015:SBF

[899] Dan Olteanu and Jakub Závodný. Size bounds for factorised representations of query results. *ACM Transactions on Database Systems*, 40(1):2:1–2:??, March 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pawlik:2015:ECT

[900] Mateusz Pawlik and Nikolaus Augsten. Efficient computation of the tree edit distance. *ACM Transactions on Database Systems*, 40(1):3:1–3:??, March 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Drosou:2015:MRD

[901] Marina Drosou and Evaggelia Pitoura. Multiple radii DisC diversity: Result diversification based on dissimilarity and coverage. *ACM Transactions on Database Systems*, 40(1):4:1–4:??, March 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Benedikt:2015:ASA

[902] Michael Benedikt, Pierre Bourhis, and Clemens Ley. Analysis of schemas with access restrictions. *ACM Transactions on Database Systems*, 40(1):5:1–5:??, March 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Athanassoulis:2015:OUD

[903] Manos Athanassoulis, Shimin Chen, Anastasia Ailamaki, Philip B. Gibbons, and Radu Stoica. Online updates on data warehouses via judicious use of solid-state storage. *ACM Transactions on Database Systems*, 40 (1):6:1–6:??, March 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jensen:2015:EBT

[904] Christian S. Jensen. Editorial: The best of two worlds — present your TODS paper at SIGMOD. *ACM Transactions on Database Systems*, 40 (2):7:1–7:??, June 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Beedkar:2015:CGS

[905] Kaustubh Beedkar, Klaus Berberich, Rainer Gemulla, and Iris Miliaraki. Closing the gap: Sequence mining at scale. *ACM Transactions on Database Systems*, 40(2):8:1–8:??, June 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ameloot:2015:DDF

[906] Tom J. Ameloot. Deciding determinism with fairness for simple transducer networks. *ACM Transactions on*

Database Systems, 40(2):9:1–9:??, June 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Nagendra:2015:EPS

[907] Mithila Nagendra and K. Selçuk Candan. Efficient processing of skyline-join queries over multiple data sources. *ACM Transactions on Database Systems*, 40(2):10:1–10:??, June 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yuan:2015:OBL

[908] Ganzhao Yuan, Zhenjie Zhang, Marianne Winslett, Xiaokui Xiao, Yin Yang, and Zhifeng Hao. Optimizing batch linear queries under exact and approximate differential privacy. *ACM Transactions on Database Systems*, 40 (2):11:1–11:??, June 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Termehchy:2015:CEC

[909] Arash Termehchy, Ali Vakilian, Yodsawalai Chodpathumwan, and Marianne Winslett. Cost-effective conceptual design for information extraction. *ACM Transactions on Database Systems*, 40(2):12:1–12:??, June 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cao:2015:EPS

[910] Xin Cao, Gao Cong, Tao Guo, Christian S. Jensen, and Beng Chin Ooi. Efficient processing of spatial group keyword queries. *ACM Transactions on Database Systems*, 40(2):13:1–13:??, June 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Vincent:2015:TCD

[911] Millist Vincent, Jixue Liu, Hong-Cheu Liu, and Sebastian Link. Technical correspondence: "Differential Dependencies: Reasoning and Discovery" revisited. *ACM Transactions on Database Systems*, 40(2):14:1–14:??, June 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). See [790] and response [958].

Lu:2015:BQA

[912] Jiaheng Lu, Chunbin Lin, Wei Wang, Chen Li, and Xiaokui Xiao. Boosting the quality of approximate string matching by synonyms. *ACM Transactions on Database Systems*, 40(3): 15:1–15:??, October 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Rusu:2015:WDA

[913] Florin Rusu, Zixuan Zhuang, Mingxi Wu, and Chris Jermaine. Workload-driven antijoin cardinality estimation. *ACM Transactions on Database Systems*, 40(3):16:1–16:??, October 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chen:2015:OLQ

[914] Zitong Chen, Yubao Liu, Raymond Chi-Wing Wong, Jiamin Xiong, Ganglin Mai, and Cheng Long. Optimal location queries in road networks. *ACM Transactions on Database Systems*, 40(3):17:1–17:??, October 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Rietveld:2015:RLD

[915] Kristian F. D. Rietveld and Harry A. G. Wijshoff. Reducing layered

database applications to their essence through vertical integration. *ACM Transactions on Database Systems*, 40 (3):18:1–18:??, October 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cheng:2015:SDM

[916] Yu Cheng and Florin Rusu. SCANRAW: a database meta-operator for parallel in-situ processing and loading. *ACM Transactions on Database Systems*, 40(3):19:1–19:??, October 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Parchas:2015:UGP

[917] Panos Parchas, Francesco Gullo, Dimitris Papadias, and Francesco Bonchi. Uncertain graph processing through representative instances. *ACM Transactions on Database Systems*, 40(3): 20:1–20:??, October 2015. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Ameloot:2016:WFM

[918] Tom J. Ameloot, Bas Ketsman, Frank Neven, and Daniel Zinn. Weaker forms of monotonicity for declarative networking: a more fine-grained answer to the CALM-conjecture. *ACM Transactions on Database Systems*, 40(4): 21:1–21:??, January 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bonifati:2016:LJQ

[919] Angela Bonifati, Radu Ciucanu, and Sławek Staworko. Learning join queries from user examples. *ACM Transactions on Database Systems*, 40(4): 24:1–24:??, January 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yang:2016:NFI

[920] Xiaochun Yang, Tao Qiu, Bin Wang, Baihua Zheng, Yaoshu Wang, and Chen Li. Negative factor: Improving regular-expression matching in strings. *ACM Transactions on Database Systems*, 40(4):25:1–25:46, January 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zhou:2016:FRW

[921] Zhuojie Zhou, Nan Zhang, Zhiguo Gong, and Gautam Das. Faster random walks by rewiring online social networks on-the-fly. *ACM Transactions on Database Systems*, 40(4): 26:1–26:??, February 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jensen:2016:EUE

[922] Christian S. Jensen. Editorial: Updates to the editorial board. *ACM Transactions on Database Systems*, 41 (1):1:1–1:??, April 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Libkin:2016:STV

[923] Leonid Libkin. SQL's three-valued logic and certain answers. *ACM Transactions on Database Systems*, 41 (1):1:1–1:??, April 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zhang:2016:MOF

[924] Ce Zhang, Arun Kumar, and Christopher Ré. Materialization optimizations for feature selection workloads. *ACM*

Transactions on Database Systems, 41 (1):2:1–2:??, April 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Olteanu:2016:EFP

[925] Dan Olteanu and Sebastiaan J. Van Schaik. ENFrame: a framework for processing probabilistic data. *ACM Transactions on Database Systems*, 41 (1):3:1–3:??, April 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fink:2016:DQN

[926] Robert Fink and Dan Olteanu. Dichotomies for queries with negation in probabilistic databases. *ACM Transactions on Database Systems*, 41(1):4:1–4:??, April 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zhou:2016:BEQ

[927] Xiaoling Zhou, Jianbin Qin, Chuan Xiao, Wei Wang, Xuemin Lin, and Yoshiharu Ishikawa. BEVA: an efficient query processing algorithm for error-tolerant autocompletion. *ACM Transactions on Database Systems*, 41 (1):5:1–5:??, April 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fagin:2016:DCI

[928] Ronald Fagin, Benny Kimelfeld, Frederick Reiss, and Stijn Vansummeren. Declarative cleaning of inconsistencies in information extraction. *ACM Transactions on Database Systems*, 41 (1):6:1–6:??, April 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Pham:2016:ISS

[929] Huy Pham, Cyrus Shahabi, and Yan Liu. Inferring social strength from spatiotemporal data. *ACM Transactions on Database Systems*, 41(1):7:1–7:??, April 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cheung:2016:SBL

[930] Alvin Cheung, Samuel Madden, and Armando Solar-Lezama. Sloth: Being lazy is a virtue (when issuing database queries). *ACM Transactions on Database Systems*, 41(2):8:1–8:??, June 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jensen:2016:EDC

[931] Christian S. Jensen. Editorial: The dark citations of TODS papers and what to do about it — or: Cite the journal paper. *ACM Transactions on Database Systems*, 41(2):8:1–8:??, June 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Caruccio:2016:SQV

[932] Loredana Caruccio, Giuseppe Polese, and Genoveffa Tortora. Synchronization of queries and views upon schema evolutions: a survey. *ACM Transactions on Database Systems*, 41 (2):9:1–9:??, June 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Deng:2016:CMT

[933] Ting Deng, Wenfei Fan, and Floris Geerts. Capturing missing tuples and missing values. *ACM Transactions*

on Database Systems, 41(2):10:1–10:??, June 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Dutt:2016:PBF

[934] Anshuman Dutt and Jayant R. Haritsa. Plan bouquets: a fragrant approach to robust query processing. *ACM Transactions on Database Systems*, 41 (2):11:1–11:??, June 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jung:2016:RWR

[935] Jinhong Jung, Kijung Shin, Lee Sael, and U. Kang. Random walk with restart on large graphs using block elimination. *ACM Transactions on Database Systems*, 41(2):12:1–12:??, June 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Arenas:2016:ECF

[936] Marcelo Arenas and Gonzalo I. Diaz. The exact complexity of the first-order logic definability problem. *ACM Transactions on Database Systems*, 41 (2):13:1–13:??, June 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cohen:2016:CLT

[937] Sara Cohen and Yaacov Y. Weiss. The complexity of learning tree patterns from example graphs. *ACM Transactions on Database Systems*, 41 (2):14:1–14:??, June 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bailis:2016:SAV

[938] Peter Bailis, Alan Fekete, Ali Ghodsi, Joseph M. Hellerstein, and Ion Stoica. Scalable atomic visibility with RAMP transactions. *ACM Transactions on Database Systems*, 41(3): 15:1–15:??, August 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

To:2016:PSE

[939] Quoc-Cuong To, Benjamin Nguyen, and Philippe Pucheral. Private and scalable execution of SQL aggregates on a secure decentralized architecture. *ACM Transactions on Database Systems*, 41(3):16:1–16:??, August 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Burdick:2016:DFL

[940] Douglas Burdick, Ronald Fagin, Phokion G. Kolaitis, Lucian Popa, and Wang-Chiew Tan. A declarative framework for linking entities. *ACM Transactions on Database Systems*, 41(3): 17:1–17:??, August 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bourhis:2016:BRR

[941] Pierre Bourhis, Gabriele Puppis, Cristian Riveros, and Slawek Staworko. Bounded repairability for regular tree languages. *ACM Transactions on Database Systems*, 41(3):18:1–18:??, August 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bender:2016:BTC

[942] Michael A. Bender, Roozbeh Ebrahimi, Haodong Hu, and Bradley C. Kusz-

maul. B-trees and cache-oblivious B-trees with different-sized atomic keys. *ACM Transactions on Database Systems*, 41(3):19:1–19:??, August 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Mazowiecki:2016:MDR

[943] Filip Mazowiecki, Filip Murlak, and Adam Witkowski. Monadic Datalog and regular tree pattern queries. *ACM Transactions on Database Systems*, 41 (3):20:1–20:??, August 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Tian:2016:BHW

[944] Yuanyuan Tian, Fatma Özcan, Tao Zou, Romulo Goncalves, and Hamid Pirahesh. Building a hybrid warehouse: Efficient joins between data stored in HDFS and enterprise warehouse. *ACM Transactions on Database Systems*, 41(4):21:1–21:??, December 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Khamis:2016:JGR

[945] Mahmoud Abo Khamis, Hung Q. Ngo, Christopher Ré, and Atri Rudra. Joins via geometric resolutions: Worst case and beyond. *ACM Transactions on Database Systems*, 41(4): 22:1–22:??, December 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Papadimitriou:2016:GBA

[946] Dimitra Papadimitriou, Georgia Koutrika, John Mylopoulos, and Yannis Velegrakis. The goal behind the action: Toward goal-aware systems and applications. *ACM Transactions on Database Systems*, 41(4):23:1–23:??, December 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fazzinga:2016:EIC

[947] Bettina Fazzinga, Sergio Flesca, Filippo Furfaro, and Francesco Parisi. Exploiting integrity constraints for cleaning trajectories of RFID-monitored objects. *ACM Transactions on Database Systems*, 41(4):24:1–24:??, December 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Maabout:2016:SMU

[948] Sofian Maabout, Carlos Ordonez, Patrick Kamnang Wanko, and Nicolas Hanusse. Skycube materialization using the topmost skyline or functional dependencies. *ACM Transactions on Database Systems*, 41(4): 25:1–25:??, December 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Dignos:2016:EKR

[949] Anton Dignös, Michael H. Böhlen, Johann Gamper, and Christian S. Jensen. Extending the kernel of a relational DBMS with comprehensive support for sequenced temporal queries. *ACM Transactions on Database Systems*, 41(4):26:1–26:??, December 2016. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bourhis:2016:GBD

[950] Pierre Bourhis, Marco Manna, Michael Morak, and Andreas Pieris. Guarded-based disjunctive tuple-generating dependencies. *ACM Transactions on Database Systems*, 41(4):27:1–27:??, December 2016. CODEN ATDSD3.

ISSN 0362-5915 (print), 1557-4644 (electronic).

Beame:2017:EMC

[951] Paul Beame, Jerry Li, Sudeepa Roy, and Dan Suciu. Exact model counting of query expressions: Limitations of propositional methods. *ACM Transactions on Database Systems*, 42 (1):1:1–1:??, March 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jensen:2017:EUE

[952] Christian S. Jensen. Editorial: Updates to the editorial board. *ACM Transactions on Database Systems*, 42 (1):1:1–1:??, March 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Liu:2017:SMD

[953] Xiufeng Liu, Lukasz Golab, Wojciech Golab, Ihab F. Ilyas, and Shichao Jin. Smart meter data analytics: Systems, algorithms, and benchmarking. *ACM Transactions on Database Systems*, 42 (1):2:1–2:??, March 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Currim:2017:DMM

[954] Sabah Currim, Richard T. Snodgrass, Young-Kyoon Suh, and Rui Zhang. DBMS metrology: Measuring query time. *ACM Transactions on Database Systems*, 42(1):3:1–3:??, March 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Wu:2017:CFC

[955] You Wu, Pankaj K. Agarwal, Chengkai Li, Jun Yang, and Cong Yu. Computational fact checking through query perturbations. *ACM Transactions on Database Systems*, 42(1):4:1–4:??, March 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Teflioudi:2017:EAM

[956] Christina Teflioudi and Rainer Gemulla. Exact and approximate maximum inner product search with LEMP. *ACM Transactions on Database Systems*, 42 (1):5:1–5:??, March 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Shi:2017:UUA

[957] Xiaogang Shi, Bin Cui, Gillian Dobbie, and Beng Chin Ooi. UniAD: a unified ad hoc data processing system. *ACM Transactions on Database Systems*, 42(1):6:1–6:??, March 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Song:2017:RDD

[958] Shaoxu Song and Lei Chen. Response to "Differential Dependencies Revisited". *ACM Transactions on Database Systems*, 42(1):7:1–7:??, March 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). See [790, 911].

Paparrizos:2017:FAT

[959] John Paparrizos and Luis Gravano. Fast and accurate time-series clustering. *ACM Transactions on Database Systems*, 42(2):8:1–8:??, June 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Koutris:2017:CQA

[960] Paraschos Koutris and Jef Wijsen. Consistent query answering for self-join-free conjunctive queries under primary key constraints. *ACM Transactions on Database Systems*, 42(2):9:1–9:??, June 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Yu:2017:ODM

[961] Yanwei Yu, Lei Cao, Elke A. Rundensteiner, and Qin Wang. Outlier detection over massive-scale trajectory streams. *ACM Transactions on Database Systems*, 42(2):10:1–10:??, June 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Han:2017:CCF

[962] Yunheng Han, Weiwei Sun, and Baihua Zheng. COMPRESS: a comprehensive framework of trajectory compression in road networks. *ACM Transactions on Database Systems*, 42 (2):11:1–11:??, June 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

TenCate:2017:AAS

[963] Balder Ten Cate, Phokion G. Kolaitis, Kun Qian, and Wang-Chiew Tan. Approximation algorithms for schema-mapping discovery from data examples. *ACM Transactions on Database Systems*, 42(2):12:1–12:??, June 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Maniu:2017:IFQ

[964] Silviu Maniu, Reynold Cheng, and Pierre Senellart. An indexing framework for queries on probabilistic graphs. *ACM Transactions on Database Systems*, 42(2):13:1–13:??, June 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Gan:2017:HAE

[965] Junhao Gan and Yufei Tao. On the hardness and approximation of Euclidean DBSCAN. *ACM Transactions on Database Systems*, 42(3): 14:1–14:??, August 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Martens:2017:BCS

[966] Wim Martens, Frank Neven, Matthias Niewerth, and Thomas Schwentick. BonXai: Combining the simplicity of DTD with the expressiveness of XML schema. *ACM Transactions on Database Systems*, 42(3):15:1–15:??, August 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zheng:2017:ESB

[967] Weiguo Zheng, Lei Zou, Lei Chen, and Dongyan Zhao. Efficient SimRank-based similarity join. *ACM Transactions on Database Systems*, 42(3): 16:1–16:??, August 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kaminski:2017:QNA

[968] Mark Kaminski, Egor V. Kostylev, and Bernardo Cuenca Grau. Query nesting, assignment, and aggregation in SPARQL 1.1. *ACM Transactions on Database Systems*, 42(3):17:1–17:??, August 2017. CODEN ATDSD3. ISSN

0362-5915 (print), 1557-4644 (electronic).

Tschirschnitz:2017:DID

[969] Fabian Tschirschnitz, Thorsten Papenbrock, and Felix Naumann. Detecting inclusion dependencies on very many tables. *ACM Transactions on Database Systems*, 42(3):18:1–18:??, August 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Schubert:2017:DRR

[970] Erich Schubert, Jörg Sander, Martin Ester, Hans Peter Kriegel, and Xiaowei Xu. DBSCAN revisited, revisited: Why and how you should (still) use DBSCAN. *ACM Transactions on Database Systems*, 42(3): 19:1–19:??, August 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Aberger:2017:ERE

[971] Christopher R. Aberger, Andrew Lamb, Susan Tu, Andres Nötzli, Kunle Olukotun, and Christopher Ré. EmptyHeaded: a relational engine for graph processing. *ACM Transactions on Database Systems*, 42(4):20:1–20:??, November 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Arenas:2017:DQL

[972] Marcelo Arenas and Martin Ugarte. Designing a query language for RDF: Marrying open and closed worlds. *ACM Transactions on Database Systems*, 42(4):21:1–21:??, November 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Barany:2017:DPP

[973] Vince Bárány, Balder Ten Cate, Benny Kimelfeld, Dan Olteanu, and Zografoula Vagena. Declarative probabilistic programming with Datalog. *ACM Transactions on Database Systems*, 42(4):22:1–22:??, November 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Alvaro:2017:BCA

[974] Peter Alvaro, Neil Conway, Joseph M. Hellerstein, and David Maier. Blazes: Coordination analysis and placement for distributed programs. *ACM Transactions on Database Systems*, 42(4): 23:1–23:??, November 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Colazzo:2017:LTM

[975] Dario Colazzo, Giorgio Ghelli, and Carlo Sartiani. Linear time membership in a class of regular expressions with counting, interleaving, and unordered concatenation. *ACM Transactions on Database Systems*, 42(4): 24:1–24:??, November 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Zhang:2017:PPD

[976] Jun Zhang, Graham Cormode, Cecilia M. Procopiuc, Divesh Srivastava, and Xiaokui Xiao. PrivBayes: Private data release via Bayesian networks. *ACM Transactions on Database Systems*, 42(4):25:1–25:??, November 2017. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Jensen:2018:EUE

[977] Christian S. Jensen. Editorial: Updates to the Editorial Board. *ACM Transactions on Database Systems*, 43 (1):1:1–1:??, April 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Demertzis:2018:PPR

[978] Ioannis Demertzis, Stavros Papadopoulos, Odysseas Papapetrou, Antonios Deligiannakis, Minos Garofalakis, and Charalampos Papamanthou. Practical private range search in depth. *ACM Transactions on Database Systems*, 43 (1):2:1–2:??, April 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Chung:2018:EIU

[979] Yeounoh Chung, Michael Lind Mortensen, Carsten Binnig, and Tim Kraska. Estimating the impact of unknown unknowns on aggregate query results. *ACM Transactions on Database Systems*, 43(1):3:1–3:??, April 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Shaikhha:2018:BEQ

[980] Amir Shaikhha, Yannis Klonatos, and Christoph Koch. Building efficient query engines in a high-level language. *ACM Transactions on Database Systems*, 43(1):4:1–4:??, April 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Libkin:2018:TNA

[981] Leonid Libkin, Juan L. Reutter, Adrián Soto, and Domagoj Vrgoc. TriAL: a navigational algebra for RDF triplestores. *ACM Transactions on Database Systems*, 43(1):5:1–5:??, April 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Cao:2018:BQR

[982] Yang Cao, Wenfei Fan, Floris Geerts, and Ping Lu. Bounded query rewriting using views. *ACM Transactions on Database Systems*, 43(1):6:1–6:??, April 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Berkholz:2018:AFQ

[983] Christoph Berkholz, Jens Keppeler, and Nicole Schweikardt. Answering FO+MOD queries under updates on bounded degree databases. *ACM Transactions on Database Systems*, 43 (2):7:1–7:??, September 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Barcelo:2018:EES

[984] Pablo Barceló, Markus Kröll, Reinhard Pichler, and Sebastian Skritek. Efficient evaluation and static analysis for well-designed pattern trees with projection. *ACM Transactions on Database Systems*, 43(2):8:1–8:??, September 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Lazerson:2018:LMD

[985] Arnon Lazerson, Daniel Keren, and Assaf Schuster. Lightweight monitoring of distributed streams. *ACM Transactions on Database Systems*, 43(2): 9:1–9:??, September 2018. CODEN

ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Qi:2018:RQU

[986] Jianzhong Qi, Fei Zuo, Hanan Samet, and Jia Cheng Yao. K-regret queries using multiplicative utility functions. *ACM Transactions on Database Systems*, 43(2):10:1–10:??, September 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kimelfeld:2018:RFC

[987] Benny Kimelfeld and Christopher Ré. A relational framework for classifier engineering. *ACM Transactions on Database Systems*, 43(3):11:1–11:??, November 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Schwentick:2018:DCU

[988] Thomas Schwentick, Nils Vortmeier, and Thomas Zeume. Dynamic complexity under definable changes. *ACM Transactions on Database Systems*, 43 (3):12:1–12:??, November 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Arenas:2018:ELQ

[989] Marcelo Arenas, Georg Gottlob, and Andreas Pieris. Expressive languages for querying the Semantic Web. *ACM Transactions on Database Systems*, 43 (3):13:1–13:??, November 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Polychroniou:2018:DJD

[990] Orestis Polychroniou, Wangda Zhang, and Kenneth A. Ross. Distributed joins and data placement for minimal network traffic. *ACM Transactions on Database Systems*, 43(3): 14:1–14:??, November 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Abuzaid:2018:MPA

[991] Firas Abuzaid, Peter Bailis, Jialin Ding, Edward Gan, Samuel Madden, Deepak Narayanan, Kexin Rong, and Sahaana Suri. MacroBase: Prioritizing attention in fast data. *ACM Transactions on Database Systems*, 43(4): 15:1–15:??, December 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Dayan:2018:OBF

[992] Niv Dayan, Manos Athanassoulis, and Stratos Idreos. Optimal Bloom filters and adaptive merging for LSM-trees. *ACM Transactions on Database Systems*, 43(4):16:1–16:??, December 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Meneghetti:2018:LQA

[993] Niccolò Meneghetti, Oliver Kennedy, and Wolfgang Gatterbauer. Learning from query-answers: a scalable approach to belief updating and parameter learning. *ACM Transactions on Database Systems*, 43(4):17:1–17:??, December 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fan:2018:PSG

[994] Wenfei Fan, Wenyuan Yu, Jingbo Xu, Jingren Zhou, Xiaojian Luo, Qiang Yin, Ping Lu, Yang Cao, and Ruiqi Xu. Parallelizing sequential graph

computations. *ACM Transactions on Database Systems*, 43(4):18:1–18:??, December 2018. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Kipf:2019:SAF

[995] Andreas Kipf, Varun Pandey, Jan Böttcher, Lucas Braun, Thomas Neumann, and Alfons Kemper. Scalable analytics on fast data. *ACM Transactions on Database Systems*, 44 (1):1:1–1:??, January 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Li:2019:WJX

[996] Feifei Li, Bin Wu, Ke Yi, and Zhuoyue Zhao. Wander join and XDB: Online aggregation via random walks. *ACM Transactions on Database Systems*, 44 (1):2:1–2:??, January 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Bai:2019:HMD

[997] Ran Bai, Wing Kai Hon, Eric Lo, Zhian He, and Kenny Zhu. Historic moments discovery in sequence data. *ACM Transactions on Database Systems*, 44 (1):3:1–3:??, January 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Alexandrov:2019:ROE

[998] Alexander Alexandrov, Georgi Krastev, and Volker Markl. Representations and optimizations for embedded parallel dataflow languages. *ACM Transactions on Database Systems*, 44(1):4:1–4:??, January 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic).

Fan:2019:DG

[999] Wenfei Fan and Ping Lu. Dependencies for graphs. *ACM Transactions on Database Systems*, 44(2):5:1–5:??, April 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3287285`.

Hu:2019:OOM

[1000] Xiao Hu, Ke Yi, and Yufei Tao. Output-optimal massively parallel algorithms for similarity joins. *ACM Transactions on Database Systems*, 44 (2):6:1–6:??, April 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3311967`.

Dautrich:2019:IIT

[1001] Jonathan L. Dautrich, Jr. and Chinya V. Ravishankar. Inferring insertion times and optimizing error penalties in time-decaying Bloom filters. *ACM Transactions on Database Systems*, 44(2):7:1–7:??, April 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3284552`.

Gummidi:2019:SSC

[1002] Srinivasa Raghavendra Bhuvan Gummidi, Xike Xie, and Torben Bach Pedersen. A survey of spatial crowdsourcing. *ACM Transactions on Database Systems*, 44(2):8:1–8:??, April 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3291933`.

Damme:2019:CES

[1003] Patrick Damme, Annett Ungethüm, Juliana Hildebrandt, Dirk Habich, and Wolfgang Lehner. From a comprehensive experimental survey to a cost-based selection strategy for lightweight integer compression algorithms. *ACM Transactions on Database Systems*, 44(3):9:1–9:??, June 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3323991`.

Bonifati:2019:IMS

[1004] Angela Bonifati, Ugo Comignani, Emmanuel Coquery, and Romuald Thion. Interactive mapping specification with exemplar tuples. *ACM Transactions on Database Systems*, 44(3):10:1–10:??, June 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3321485`.

Beedkar:2019:UFF

[1005] Kaustubh Beedkar, Rainer Gemulla, and Wim Martens. A unified framework for frequent sequence mining with subsequence constraints. *ACM Transactions on Database Systems*, 44 (3):11:1–11:??, June 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3321486`.

Deutsch:2019:VHA

[1006] Alin Deutsch, Yuliang Li, and Victor Vianu. Verification of hierarchical artifact systems. *ACM Transactions on Database Systems*, 44(3):12:1–12:??, June 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3321487`.

Seidemann:2019:CHP

[1007] Marc Seidemann, Nikolaus Glombiewski, Michael Körber, and Bernhard Seeger. ChronicleDB: a high-performance event store. *ACM Transactions on Database Systems*, 44(4): 13:1–13:??, October 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3342357`.

Brijder:2019:EPQ

[1008] Robert Brijder, Floris Geerts, Jan Van Den Bussche, and Timmy Weerwag. On the expressive power of query languages for matrices. *ACM Transactions on Database Systems*, 44(4):15:1–15:??, October 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3331445`.

Martens:2019:DES

[1009] Wim Martens and Tina Trautner. Dichotomies for evaluating simple regular path queries. *ACM Transactions on Database Systems*, 44(4):16:1–16:??, October 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3331446`.

Wang:2019:EAA

[1010] Sibo Wang, Renchi Yang, Runhui Wang, Xiaokui Xiao, Zhewei Wei, Wenqing Lin, Yin Yang, and Nan Tang. Efficient algorithms for approximate single-source personalized

PageRank queries. *ACM Transactions on Database Systems*, 44(4):18:1–18:??, October 2019. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/ft_gateway.cfm?id=3360902`.

Jensen:2020:EUE

[1011] Christian S. Jensen. Editorial: Updates to the Editorial Board. *ACM Transactions on Database Systems*, 45(1):1e:1, March 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3381020`.

McCamish:2020:GTA

[1012] Ben McCamish, Vahid Ghadakchi, Arash Termehchy, Behrouz Touri, Eduardo Cotilla-Sanchez, Liang Huang, and Soravit Changpinyo. A game-theoretic approach to data interaction. *ACM Transactions on Database Systems*, 45(1):1:1–1:44, March 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3351450`.

Zhang:2020:FDD

[1013] Dan Zhang, Ryan McKenna, Ios Kotsogiannis, George Bissias, Michael Hay, Ashwin Machanavajjhala, and Gerome Miklau. ϵKTELO: a framework for defining differentially private computations. *ACM Transactions on Database Systems*, 45(1):2:1–2:44, March 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3362032`.

Florenzano:2020:EEA

[1014] Fernando Florenzano, Cristian Riveros, Martín Ugarte, Stijn Vansummeren, and Domagoj Vrgoc. Efficient enumeration algorithms for regular document spanners. *ACM Transactions on Database Systems*, 45(1):3:1–3:42, March 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3351451`.

Livshits:2020:COR

[1015] Ester Livshits, Benny Kimelfeld, and Sudeepa Roy. Computing optimal repairs for functional dependencies. *ACM Transactions on Database Systems*, 45(1):4:1–4:46, March 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3360904`.

Zhang:2020:SRF

[1016] Huanchen Zhang, Hyeontaek Lim, Viktor Leis, David G. Andersen, Michael Kaminsky, Kimberly Keeton, and Andrew Pavlo. Succinct range filters. *ACM Transactions on Database Systems*, 45(2):5:1–5:31, July 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/abs/10.1145/3375660`.

Fan:2020:AAP

[1017] Wenfei Fan, Ping Lu, Wenyuan Yu, Jingbo Xu, Qiang Yin, Xiaojian Luo, Jingren Zhou, and Ruochun Jin. Adaptive asynchronous parallelization of graph algorithms. *ACM Transactions on Database Systems*, 45(2):6:1–6:45, July 2020. CODEN ATDSD3. ISSN

0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3397491.

Khamis:2020:LMR

[1018] Mahmoud Abo Khamis, Hung Q. Ngo, Xuanlong Nguyen, Dan Olteanu, and Maximilian Schleich. Learning models over relational data using sparse tensors and functional dependencies. *ACM Transactions on Database Systems*, 45(2):7:1–7:66, July 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3375661.

Kolaitis:2020:LNT

[1019] Phokion G. Kolaitis, Reinhard Pichler, Emanuel Sallinger, and Vadim Savenkov. On the language of nested tuple generating dependencies. *ACM Transactions on Database Systems*, 45(2):8:1–8:59, July 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3369554.

Fan:2020:CNI

[1020] Wenfei Fan, Xueli Liu, Ping Lu, and Chao Tian. Catching numeric inconsistencies in graphs. *ACM Transactions on Database Systems*, 45(2):9:1–9:47, July 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/abs/10.1145/3385031.

Jermaine:2020:E

[1021] Chris Jermaine. Editorial. *ACM Transactions on Database Systems*, 45(3):10:1, September 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3417730.

Kara:2020:MTQ

[1022] Ahmet Kara, Hung Q. Ngo, Milos Nikolic, Dan Olteanu, and Haozhe Zhang. Maintaining triangle queries under updates. *ACM Transactions on Database Systems*, 45(3):11:1–11:46, September 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3396375.

Shaikhha:2020:SIL

[1023] Amir Shaikhha, Mohammed Elseidy, Stephan Mihaila, Daniel Espino, and Christoph Koch. Synthesis of incremental linear algebra programs. *ACM Transactions on Database Systems*, 45(3):12:1–12:44, September 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3385398.

Schirmer:2020:EDM

[1024] Philipp Schirmer, Thorsten Papenbrock, Ioannis Koumarelas, and Felix Naumann. Efficient discovery of matching dependencies. *ACM Transactions on Database Systems*, 45(3):13:1–13:33, September 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3392778.

Qi:2020:PTS

[1025] Jianzhong Qi, Yufei Tao, Yanchuan Chang, and Rui Zhang. Packing R-trees with space-filling curves: Theoretical optimality, empirical effi-

ciency, and bulk-loading parallelizability. *ACM Transactions on Database Systems*, 45(3):14:1–14:47, September 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3397506`.

Fan:2020:DGF

[1026] Wenfei Fan, Chunming Hu, Xueli Liu, and Ping Lu. Discovering graph functional dependencies. *ACM Transactions on Database Systems*, 45(3): 15:1–15:42, September 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3397198`.

Nakandala:2020:IAC

[1027] Supun Nakandala, Kabir Nagrecha, Arun Kumar, and Yannis Papakonstantinou. Incremental and approximate computations for accelerating deep CNN inference. *ACM Transactions on Database Systems*, 45(4): 16:1–16:42, December 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3397461`.

Khamis:2020:FAQ

[1028] Mahmoud Abo Khamis, Ryan R. Curtin, Benjamin Moseley, Hung Q. Ngo, Xuanlong Nguyen, Dan Olteanu, and Maximilian Schleich. Functional aggregate queries with additive inequalities. *ACM Transactions on Database Systems*, 45(4):17:1–17:41, December 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3426865`.

Ciaccia:2020:FSD

[1029] Paolo Ciaccia and Davide Martinenghi. Flexible skylines: Dominance for arbitrary sets of monotone functions. *ACM Transactions on Database Systems*, 45(4):18:1–18:45, December 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3406113`.

Zimanyi:2020:MMD

[1030] Esteban Zimányi, Mahmoud Sakr, and Arthur Lesuisse. MobilityDB: a mobility database based on PostgreSQL and PostGIS. *ACM Transactions on Database Systems*, 45(4):19:1–19:42, December 2020. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3406534`.

Traub:2021:SGE

[1031] Jonas Traub, Philipp Marian Grulich, Alejandro Rodríguez Cuéllar, Sebastian Breß, Asterios Katsifodimos, Tilmann Rabl, and Volker Markl. Scotty: General and efficient open-source window aggregation for stream processing systems. *ACM Transactions on Database Systems*, 46(1):1:1–1:46, April 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3433675`.

Amarilli:2021:CDE

[1032] Antoine Amarilli, Pierre Bourhis, Stefan Mengel, and Matthias Niewerth. Constant-delay enumeration for nondeterministic document spanners. *ACM Transactions on Database Systems*, 46 (1):2:1–2:30, April 2021. CODEN

ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3436487.

Mitchell:2021:ESM

[1033] Rory Mitchell, Eibe Frank, and Geoffrey Holmes. An empirical study of moment estimators for quantile approximation. *ACM Transactions on Database Systems*, 46(1):3:1–3:21, April 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3442337.

Meduri:2021:EML

[1034] Venkata Vamsikrishna Meduri, Kanchan Chowdhury, and Mohamed Sarwat. Evaluation of machine learning algorithms in predicting the next SQL query from the future. *ACM Transactions on Database Systems*, 46 (1):4:1–4:46, April 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3442338.

Carmeli:2021:ECU

[1035] Nofar Carmeli and Markus Kröll. On the enumeration complexity of unions of conjunctive queries. *ACM Transactions on Database Systems*, 46(2):5:1–5:41, June 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3450263.

Mhedhbi:2021:OOT

[1036] Amine Mhedhbi, Chathura Kankanamge, and Semih Salihoglu. Optimizing one-time and continuous subgraph queries using worst-case optimal joins. *ACM Transactions on Database Systems*, 46 (2):6:1–6:45, June 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3446980.

Wei:2021:EFD

[1037] Ziheng Wei and Sebastian Link. Embedded functional dependencies and data-completeness tailored database design. *ACM Transactions on Database Systems*, 46(2):7:1–7:46, June 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3450518.

Chen:2021:GIE

[1038] Yangjun Chen and Gagandeep Singh. Graph indexing for efficient evaluation of label-constrained reachability queries. *ACM Transactions on Database Systems*, 46(2):8:1–8:50, June 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3451159.

Trummer:2021:SRB

[1039] Immanuel Trummer, Junxiong Wang, Ziyun Wei, Deepak Maram, Samuel Moseley, Saehan Jo, Joseph Antonakakis, and Ankush Rayabhari. SkinnerDB: Regret-bounded query evaluation via reinforcement learning. *ACM Transactions on Database Systems*, 46 (3):9:1–9:45, September 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3464389.

Song:2021:SDC

[1040] Shaoxu Song, Fei Gao, Aoqian Zhang, Jianmin Wang, and Philip S. Yu.

Stream data cleaning under speed and acceleration constraints. *ACM Transactions on Database Systems*, 46(3): 10:1–10:44, September 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3465740`.

Lin:2021:EBL

[1041] Xuelian Lin, Shuai Ma, Jiahao Jiang, Yanchen Hou, and Tianyu Wo. Error bounded line simplification algorithms for trajectory compression: an experimental evaluation. *ACM Transactions on Database Systems*, 46(3): 11:1–11:44, September 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3474373`.

Khamis:2021:BQC

[1042] Mahmoud Abo Khamis, Phokion G. Kolaitis, Hung Q. Ngo, and Dan Suciu. Bag query containment and information theory. *ACM Transactions on Database Systems*, 46(3):12:1–12:39, September 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3472391`.

Ma:2021:DDS

[1043] Chenhao Ma, Yixiang Fang, Reynold Cheng, Laks V. S. Lakshmanan, Wenjie Zhang, and Xuemin Lin. On directed densest subgraph discovery. *ACM Transactions on Database Systems*, 46 (4):13:1–13:45, December 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3483940`.

Singh:2021:TRH

[1044] Shikha Singh, Prashant Pandey, Michael A. Bender, Jonathan W. Berry, Martín Farach-Colton, Rob Johnson, Thomas M. Kroeger, and Cynthia A. Phillips. Timely reporting of heavy hitters using external memory. *ACM Transactions on Database Systems*, 46(4):14:1–14:35, December 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3472392`.

Benedikt:2021:BEI

[1045] Michael Benedikt, Pierre Bourhis, Louis Jachiet, and Efthymia Tsamoura. Balancing expressiveness and inexpressiveness in view design. *ACM Transactions on Database Systems*, 46(4): 15:1–15:40, December 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3488370`.

Grez:2021:FFC

[1046] Alejandro Grez, Cristian Riveros, Martín Ugarte, and Stijn Vansummeren. A formal framework for complex event recognition. *ACM Transactions on Database Systems*, 46(4): 16:1–16:49, December 2021. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3485463`.

Berger:2022:SEC

[1047] Gerald Berger, Georg Gottlob, Andreas Pieris, and Emanuel Sallinger. The space-efficient core of Vadalog. *ACM Transactions on Database Systems*, 47 (1):1:1–1:46, March 2022. CODEN ATDSD3. ISSN 0362-5915 (print),

1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3488720.

Tong:2022:URP

[1048] Yongxin Tong, Yuxiang Zeng, Zimu Zhou, Lei Chen, and Ke Xu. Unified route planning for shared mobility: an insertion-based framework. *ACM Transactions on Database Systems*, 47 (1):2:1–2:48, March 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3488723.

Binna:2022:HOT

[1049] Robert Binna, Eva Zangerle, Martin Pichl, Günther Specht, and Viktor Leis. Height optimized tries. *ACM Transactions on Database Systems*, 47 (1):3:1–3:46, March 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3506692.

Aumuller:2022:SNN

[1050] Martin Aumüller, Sariel Har-Peled, Sepideh Mahabadi, Rasmus Pagh, and Francesco Silvestri. Sampling a near neighbor in high dimensions — who is the fairest of them all? *ACM Transactions on Database Systems*, 47 (1):4:1–4:40, March 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3502867.

Schmid:2022:CRP

[1051] Markus L. Schmid. Conjunctive regular path queries with capture groups. *ACM Transactions on Database Systems*, 47 (2):5:1–5:52, June 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3514230.

Fan:2022:IGC

[1052] Wenfei Fan and Chao Tian. Incremental graph computations: Doable and undoable. *ACM Transactions on Database Systems*, 47(2):6:1–6:44, June 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3500930.

Cheng:2022:MOP

[1053] Ji Cheng, Da Yan, Wenwen Qu, Xiaotian Hao, Cheng Long, Wilfred Ng, and Xiaoling Wang. Mining order-preserving submatrices under data uncertainty: a possible-world approach and efficient approximation methods. *ACM Transactions on Database Systems*, 47(2):7:1–7:57, June 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3524915.

Arroyuelo:2022:OJU

[1054] Diego Arroyuelo, Gonzalo Navarro, Juan L. Reutter, and Javiel Rojas-Ledesma. Optimal joins using compressed quadtrees. *ACM Transactions on Database Systems*, 47(2):8:1–8:53, June 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3514231.

Carmeli:2022:AUC

[1055] Nofar Carmeli, Shai Zeevi, Christoph Berkholz, Alessio Conte, Benny Kimelfeld, and Nicole Schweikardt. Answering (unions of) conjunctive queries

using random access and random-order enumeration. *ACM Transactions on Database Systems*, 47(3):9:1–9:49, September 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3531055`.

Asudeh:2022:FRR

[1056] Abolfazl Asudeh, Gautam Das, H. V. Jagadish, Shangqi Lu, Azade Nazi, Yufei Tao, Nan Zhang, and Jianwen Zhao. On finding rank regret representatives. *ACM Transactions on Database Systems*, 47(3): 10:1–10:37, September 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3531054`.

Zeng:2022:PS

[1057] Tianjing Zeng, Zhewei Wei, Ge Luo, Ke Yi, Xiaoyong Du, and Ji-Rong Wen. Persistent summaries. *ACM Transactions on Database Systems*, 47(3): 11:1–11:42, September 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3531053`.

Guo:2022:IMR

[1058] Qintian Guo, Sibo Wang, Zhewei Wei, Wenqing Lin, and Jing Tang. Influence maximization revisited: Efficient sampling with bound tightened. *ACM Transactions on Database Systems*, 47(3):12:1–12:45, September 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3533817`.

Ketsman:2022:DRL

[1059] Bas Ketsman, Christoph Koch, Frank Neven, and Brecht Vandevoort. Deciding robustness for lower SQL isolation levels. *ACM Transactions on Database Systems*, 47(4):13:1–13:??, December 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3561049`.

TenCate:2022:CQU

[1060] Balder Ten Cate and Victor Dalmau. Conjunctive queries: Unique characterizations and exact learnability. *ACM Transactions on Database Systems*, 47(4):14:1–14:??, December 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3559756`.

Wei:2022:PQT

[1061] Victor Junqiu Wei, Raymond Chi-Wing Wong, Cheng Long, David Mount, and Hanan Samet. Proximity queries on terrain surface. *ACM Transactions on Database Systems*, 47(4): 15:1–15:??, December 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3563773`.

Do:2022:ESD

[1062] Thanh Do, Goetz Graefe, and Jeffrey Naughton. Efficient sorting, duplicate removal, grouping, and aggregation. *ACM Transactions on Database Systems*, 47(4):16:1–16:??, December 2022. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3568027`.

Carmeli:2023:TOD

[1063] Nofar Carmeli, Nikolaos Tziavelis, Wolfgang Gatterbauer, Benny Kimelfeld, and Mirek Riedewald. Tractable orders for direct access to ranked answers of conjunctive queries. *ACM Transactions on Database Systems*, 48 (1):1:1–1:??, March 2023. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3578517`.

Do:2023:RES

[1064] Thanh Do and Goetz Graefe. Robust and efficient sorting with offset-value coding. *ACM Transactions on Database Systems*, 48(1):2:1–2:??, March 2023. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3570956`.

Huang:2023:ECS

[1065] Ruihong Huang, Jianmin Wang, Shaoxu Song, Xuemin Lin, Xiaochen Zhu, and Jian Pei. Efficiently cleaning structured event logs: a graph repair approach. *ACM Transactions on Database Systems*, 48(1):3:1–3:??, March 2023. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3571281`.

Fakas:2023:PSD

[1066] Georgios J. Fakas and Georgios Kalamatianos. Proportionality on spatial data with context. *ACM Transactions on Database Systems*, 48(2):4:1–4:??, June 2023. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3588434`.

Hu:2023:RDW

[1067] Donghui Hu, Qing Wang, Song Yan, Xiaojun Liu, Meng Li, and Shuli Zheng. Reversible database watermarking based on order-preserving encryption for data sharing. *ACM Transactions on Database Systems*, 48 (2):5:1–5:??, June 2023. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3589761`.

Chen:2023:EBO

[1068] Yaxing Chen, Qinghua Zheng, and Zheng Yan. Efficient bi-objective SQL optimization for enclaved cloud databases with differentially private padding. *ACM Transactions on Database Systems*, 48(2):6:1–6:??, June 2023. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3597021`.

Pavan:2023:MCM

[1069] A. Pavan, N. V. Vinodchandran, Arnab Bhattacharyya, and Kuldeep S. Meel. Model counting meets F_0 estimation. *ACM Transactions on Database Systems*, 48(3):7:1–7:??, September 2023. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3603496`.

Sarkar:2023:ETP

[1070] Subhadeep Sarkar, Tarikul Islam Papon, Dimitris Staratzis, Zichen Zhu, and Manos Athanassoulis. Enabling timely and persistent deletion in LSM-engines. *ACM Transactions on Database Systems*, 48(3):8:1–8:??, September 2023. CODEN ATDSD3.

ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3599724.

Leventidis:2023:DHD

[1071] Aristotelis Leventidis, Laura Di Rocco, Wolfgang Gatterbauer, Renée J. Miller, and Mirek Riedewald. DomainNet: Homograph detection and understanding in data lake disambiguation. *ACM Transactions on Database Systems*, 48 (3):9:1–9:??, September 2023. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3612919.

Shangqi:2023:POM

[1072] Lu Shangqi, Wim Martens, Matthias Niewerth, and Yufei Tao. Partial order multiway search. *ACM Transactions on Database Systems*, 48(4): 10:1–10:??, December 2023. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3626956.

Herodotou:2023:CBD

[1073] Herodotos Herodotou and Elena Kakoulli. Cost-based data prefetching and scheduling in big data platforms over tiered storage systems. *ACM Transactions on Database Systems*, 48(4): 11:1–11:??, December 2023. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3625389.

Gottlob:2024:FPH

[1074] Georg Gottlob, Matthias Lanzinger, Cem Okulmus, and Reinhard Pichler. Fast parallel hypertree decompositions in logarithmic recursion depth. *ACM Transactions on Database Systems*, 49 (1):1:1–1:??, March 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3638758.

Fan:2024:LEA

[1075] Wenfei Fan, Ping Lu, Kehan Pang, Ruochun Jin, and Wenyuan Yu. Linking entities across relations and graphs. *ACM Transactions on Database Systems*, 49(1):2:1–2:??, March 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3639363.

Wang:2024:AHT

[1076] Zhaoguo Wang, Chuzhe Tang, Xiaodong Zhang, Qianmian Yu, Binyu Zang, Haibing Guan, and Haibo Chen. Ad hoc transactions through the looking glass: an empirical study of application-level transactions in Web applications. *ACM Transactions on Database Systems*, 49(1):3:1–3:??, March 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3638553.

Currim:2024:IRC

[1077] Sabah Currim, Richard T. Snodgrass, and Young-Kyoon Suh. Identifying the root causes of DBMS suboptimality. *ACM Transactions on Database Systems*, 49(1):4:1–4:??, March 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL https://dl.acm.org/doi/10.1145/3636425.

Arroyuelo:2024:RWC

[1078] Diego Arroyuelo, Adrián Gómez-Brandón, Aidan Hogan, Gonzalo

Navarro, Juan Reutter, Javiel Rojas-Ledesma, and Adrián Soto. The ring: Worst-case optimal joins in graph databases using (almost) no extra space. *ACM Transactions on Database Systems*, 49(2):5:1–5:??, June 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3644824`.

Chapman:2024:SBI

[1079] Adriane Chapman, Luca Lauro, Paolo Missier, and Riccardo Torlone. Supporting better insights of data science pipelines with fine-grained provenance. *ACM Transactions on Database Systems*, 49(2):6:1–6:??, June 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3644385`.

Zhang:2024:SQN

[1080] Chao Zhang and Toumani Farouk. Sharing queries with nonequivalent user-defined aggregate functions. *ACM Transactions on Database Systems*, 49(2):7:1–7:??, June 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3649133`.

Carmeli:2024:DRS

[1081] Nofar Carmeli, Martin Grohe, Benny Kimelfeld, Ester Livshits, and Muhammad Tibi. Database repairing with soft functional dependencies. *ACM Transactions on Database Systems*, 49(2):8:1–8:??, June 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3651156`.

Tench:2024:GHF

[1082] David Tench, Evan West, Victor Zhang, Michael A. Bender, Abiyaz Chowdhury, Daniel Delayo, J. Ahmed Dellas, Martín Farach-Colton, Tyler Seip, and Kenny Zhang. GraphZeppelin: How to find connected components (even when graphs are dense, dynamic, and massive). *ACM Transactions on Database Systems*, 49(3):9:1–9:??, September 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3643846`.

Salas:2024:FCM

[1083] Jorge Salas, Cristian Riveros, and Sebastián Bugedo. A family of centrality measures for graph data based on subgraphs. *ACM Transactions on Database Systems*, 49(3):10:1–10:??, September 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3649134`.

Gershtein:2024:ACT

[1084] Shay Gershtein, Uri Avron, Ido Guy, Tova Milo, and Slava Novgorodov. Automated category tree construction: Hardness bounds and algorithms. *ACM Transactions on Database Systems*, 49(3):11:1–11:??, September 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3664283`.

Hu:2024:ASB

[1085] Pan Hu and Boris Motik. Accurate sampling-based cardinality estimation for complex graph queries. *ACM Transactions on Database Systems*, 49

(3):12:1–12:??, September 2024. CODEN ATDSD3. ISSN 0362-5915 (print), 1557-4644 (electronic). URL `https://dl.acm.org/doi/10.1145/3689209`.

Litwin:1980:LHN

[1086] W. Litwin. Linear hashing: a new tool for file and table addressing. In Lochovsky and Taylor [1089], pages 212–223. Reprinted in [1093, p. 570–581].

Regnier:1985:AGF

[1087] Mireille Regnier. Analysis of grid file algorithms. *BIT*, 25(2):335–357, June 1985. CODEN BITTEL, NBITAB. ISSN 0006-3835 (print), 1572-9125 (electronic). URL `http://www.springerlink.com/openurl.asp?genre=article&issn=0006-3835&volume=25&issue=2&spage=335`.

Kerr:1975:PIC

[1088] Douglas S. Kerr, editor. *Proceedings of the International Conference on Very Large Data Bases, Framingham, MA, USA, September 22–24, 1975*. ACM Press, New York, NY 10036, USA, 1975. ISSN 0278-2596. LCCN QA76.9.D3 I55 1975. US$15.00. ACM SIGMOD v. 1, no. 1, September 1975.

Lochovsky:1980:SIC

[1089] Frederick H. Lochovsky and ?. Taylor, editors. *Sixth International Conference on Very Large Data Bases: reprinted from Very large data bases*. IEEE Computer Society Press, 1109 Spring Street, Suite 300, Silver Spring, MD 20910, USA, 1980. IEEE Catalog Number 80CH1534-7C. ACM Order Number 471800. Long Beach Order Number 322.

Schkolnick:1983:ICV

[1090] Mario Schkolnick and C. (Costantino) Thanos, editors. *9th International Conference on Very Large Data Bases (Florence, Italy, October 31–November 2, 1983)*. VLDB Endowment, P.O. Box 2245, Saratoga, CA, USA, 1983. ISBN 0-934613-15-X. LCCN QA 76.9 D3 I61 1983. This conference is sponsored by VLDB Endowment and co-sponsored by IFIP et al.

ACM:1985:PFA

[1091] ACM, editor. *Proceedings of the Fourth ACM SIGACT-SIGMOD Symposium on Principles of Database Systems, March 25–27, 1985, Portland, Oregon*. ACM Press, New York, NY 10036, USA, 1985. ISBN 0-89791-153-9. LCCN QA 76.9 D3 A296 1985.

Kambayashi:1986:TIC

[1092] Yahiko Kambayashi, Wesley Chu, Georges Gardarin, and Setsuo Ohsuga, editors. *Twelfth International Conference on Very Large Data Bases, Proceedings (VLDB '86)*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 1986. ISBN 0-934613-18-4. xiii + 512 pp. LCCN QA 76.9 D3 I61 1986.

Stonebraker:1988:RDS

[1093] Michael Stonebraker, editor. *Readings in Database Systems*. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 1988. ISBN 0-934613-65-6. xii + 644 pp. LCCN QA76.9.D3 R4 1988. US$29.95. Contains reprint of [1086].

Garcia-Molina:1990:PAS

[1094] Héctor García-Molina and H. V. Jagadish, editors. *Proceedings of the 1990*

ACM SIGMOD International Conference on Management of Data, May 23–25, 1990, Atlantic City, NJ, volume 19(2) of *SIGMOD Record*. ACM Press, New York, NY 10036, USA, June 1990. ISBN 0-89791-365-5. LCCN QA 76.9 D3 S53 v.19 no.2 1990.

Zdonik:1990:ROO

[1095] B. Zdonik and David Maier, editors. *Readings in Object-Oriented Database Systems*. Morgan Kaufmann series in data management systems. Morgan Kaufmann Publishers, Los Altos, CA 94022, USA, 1990. ISBN 1-55860-000-0. x + 629 pp. LCCN QA76.9.D3 R42 1990. US$29.95.