Biographies of Attendees

# David Bader

David A. Bader is a Full Professor in the School of Computational Science and Engineering, College of Computing, at Georgia Institute of Technology.  Dr. Bader has also served as Director of the Sony-Toshiba-IBM Center of Competence for the Cell Broadband Engine Processor.  He received his Ph.D. in 1996 from The University of Maryland, was awarded a National Science Foundation (NSF) Postdoctoral Research Associateship in Experimental Computer Science.  He is an NSF CAREER Award recipient, an investigator on several NSF and NIH awards, was a distinguished speaker in the IEEE Computer Society Distinguished Visitors Program, and a member of the IBM PERCS team for the DARPA High Productivity Computing Systems program.  Dr. Bader serves on the Research Advisory Council for Internet2, the Steering Committees of the IPDPS and HiPC conferences, and is the General Chair of IPDPS 2010 and Chair of SIAM PP12.  He is an associate editor for several high impact publications including the ACM Journal of Experimental Algorithmics (JEA), IEEE DSOnline, and Parallel Computing, has been an associate editor for the IEEE Transactions on Parallel and Distributed Systems (TPDS), is an IEEE Fellow and a Member of the ACM. Dr. Bader's interests are at the intersection of high-performance computing and computational biology and genomics.  He has co-chaired a series of meetings, the IEEE International Workshop on High-Performance Computational Biology (HiCOMB), co-organized the NSF Workshop on Petascale Computing in the Biological Sciences, written several book chapters, and co-edited special issues of the Journal of Parallel and Distributed Computing (JPDC) and IEEE TPDS on high-performance computational biology. He has co-authored over 100 articles in peer-reviewed journals and conferences, and his main areas of research are in parallel algorithms, combinatorial optimization, and computational biology and genomics.

# Rose M. Badia

Rosa M. Badia received the B.Sc. and Ph.D. degrees in computer science from the Technical University of Catalonia, Barcelona, Spain in 1989 and 1994. From 1989 to 2007 she has been lecturing at the Technical University of Catalonia on computer organization and architecture and VLSI design, both in undergraduate and graduate programmes.

She held an Associate Professor position at the Department of Computer Architecture, Technical University of Catalonia from 1997 till 2007.

Since May 2008 she is a Scientific Researcher at the Spanish National Research Council (CSIC). Since year 2005 she is the manager of Grid computing and clusters at the Barcelona Supercomputing Center, position that she currently holds at full-time. Her current research interests includes performance prediction and modelling of MPI applications, programming models for multi-core architectures and programming models for Grid environments. She has participated in several international research projects. She has more than 60 publications in international conferences and journals.

# Pete Beckman

Division Director, Argonne Leadership Computing Facility

Pete Beckman is a recognized global expert in high-end computing systems. During the past 20 years, he has designed and built software and architectures for large-scale parallel and distributed computing systems. After receiving his Ph.D. degree in computer science from Indiana University, he helped found the university’s Extreme Computing Laboratory. In 1997 Pete joined the Advanced Computing Laboratory at Los Alamos National Laboratory.In 2000 he established a Turbolinux-sponsored research laboratory in Santa Fe that developed the world's first dynamic provisioning system for cloud computing and high performance computing (HPC) clusters. The following year, Pete became Vice President of Turbolinux's worldwide engineering efforts, managing development offices worldwide.

Pete joined Argonne National Laboratory in 2002 as Director of Engineering. Later, as Chief Architect for the TeraGrid, he designed and deployed the world's most powerful Grid computing system for linking production HPC computing centers. Pete then started a research team focusing on petascale high-performance software systems, wireless sensor networks, Linux, and the SPRUCE system to provide urgent computing for critical, time-sensitive decision support.

In 2008 he became Director of the Argonne Leadership Computing Facility, home to one of the world's fastest open science supercomputers. He also leads Argonne's exascale computing strategic initiative.

# Anne Benoit

# Anne Benoit is an ENSIMAG engineer (Applied Mathematics and Computer Science). She obtained her PhD in 2003 at the Polytechnical Institute of Grenoble (INPG). From 2003 to 2005, she was a Research Associate at the University of Edinburgh, UK. She currently holds a position of Assistant Professor at Ecole Normale Supérieure in Lyon, France. Her research interests include parallel and distributed computing, with an emphasis on algorithms, scheduling and high-level parallel programming (algorithmic skeletons), on distributed heterogeneous platforms (clusters and grids). She is also interested in performance evaluation, using Markov chains (steady state solution). She is the author of 8 international journal papers, 21 international conference papers, and more French papers and research reports. Also, she is a program committee member and a reviewer for several international conferences and journals.

# George Bosilca

Dr. Bosilca is a Research Assistant Professor at the Innovative Computing Laboratory (ICL), University of Tennessee Knoxville. He received a Ph.D. degree in parallel architectures from the University Paris XI. His Ph.D was focused on parallel environments based on automatic data dependencies graphs, and fault tolerance. His research topics include high performance networks, collective communication libraries, fault tolerance, high performance algorithms and message passing paradigms. He was one of the main developers for MPICH-V and FT-MPI. Today, Dr. Bosilca is an active participant in several open source projects such as STCI, AtomS and Open MPI.

# Aurelien Bouteiller

Aurelien Bouteiller is a senior research associate in the Innovative Computing Laboratory of the department of Computer Science and Electrical Engineering at University of Tennessee Knoxville. He received is Ph.D in computer science from University of Paris in 2007, under the direction of Franck Cappello. His current research interests includes parallel and distributed computing, fault tolerant frameworks, scalable run-time environments and high performance message passing interfaces.

# Bill Brantley

Advanced Micro Devices, Austin, TX

Bill received his Ph.D. in Computer Engineering from Carnegie-Mellon University in 1978 and then joined the IBM T. J. Watson Research Center where he began adding vector instructions to the 370 architecture.

Next, he led the team that designed the processing element and switch for the DARPA sponsored RP3 project and then began studying its performance using custom hardware instrumentation. In 1990 he moved to IBM in Austin, TX joining the Risc System 6000 performance team and finally the Linux Technology Center before joining Advanced Micro Devices in 2002 where he is a Principal Member of Technical Staff and the leader of AMD's HPC performance team. Bill has been contributing to the SPEC organization since 1995 and is currently a member of the SPEC High Performance Group which developed the SPEC MIP2007 benchmark.

# Kirk Cameron

Kirk W. Cameron received his B.S. in Mathematics from the University of Florida (2004) and Ph.D. in Computer Science from Louisianan State University (2000). From 1998-2000 he was a Computer Science researcher at Los Alamos National Laboratory. From 2001-2005 he was an assistant professor of Computer Science and Engineering at the University of South Carolina. In 2005, he joined Virginia Tech as an associate professor of Computer Science. He is Director of the Scalable Performance (SCAPE) Laboratory at Virginia Tech where he leads research to improve the efficiency of high-performance systems. Prof. Cameron pioneered the area of high-performance, power-aware computing. He participated in the development of SPECPower, the first commercial benchmark for energy efficiency and consults regularly with the US EPA in its attempt to establish Energy Star ratings for computer servers. He also co-founded the Green500, a list of the most energy efficient supercomputers in the world. Prof. Cameron is a recipient of NSF Career, DOE Career, and IBM Faculty Awards. In 2007, he was named a research fellow in the Virginia Tech College of Engineering. In 2008, he was invited to participate in the US National Academy of Engineering Frontiers of Engineering Syposium, an invitation-only congregation of the best and brightest young engineers in the United States.

# Franck Cappello

Franck Cappello holds a Senior Researcher position at INRIA. He leads the Grand-Large project at INRIA, focusing on High Performance issues in Large Scale Distributed Systems. He has initiated the XtremWeb (Desktop Grid) and MPICH-V (Fault tolerant MPI) projects. He was the director of the Grid5000 project, a nationwide computer science platform for research in large scale distributed systems. He is the scientific director of ALADDIN/Grid5000, the new 4 years INRIA project aiming to sustain the Grid5000 infrastructure and to open it to researches in Cloud Computing, Service Infrastructures and the Future Internet. He has authored papers in the domains of High Performance Programming, Desktop Grids, Grids and Fault tolerant MPI. He has contributed to more than 50 Program Committees. He is editorial board member of the international Journal on Grid Computing, Journal of Grid and Utility Computing and Journal of Cluster Computing. He is a steering committee member of IEEE HPDC and IEEE/ACM CCGRID. He is the General co-Chair of IEEE APSCC 2008, Workshop co-chair for IEEE CCGRID'2008, Program co-Chair of IEEE CCGRID'2009 and was the General Chair of IEEE HPDC'2006.

# Anthony Danalis

# Ewa Deelman

Ewa Deelman is an Assistant Research Professor at the USC Computer Science Department and a Project Leader at the USC Information Sciences Institute. Dr. Deelman's research interests include the design and exploration of collaborative, distributed scientific environments, with particular emphasis on workflow management as well as the management of large amounts of data and metadata. At ISI, Dr. Deelman is leading the Pegasus project, which designs and implements workflow mapping techniques for large-scale workflows running in distributed environments. Dr. Deelman received her PhD from Rensselaer Polytechnic Institute in Computer Science in 1997 in the area of parallel discrete event simulation.

# Jack Dongarra

# Jack Dongarra holds an appointment as University Distinguished Professor of Computer Science in the Electrical Engineering and Computer Science Department at the University of Tennessee and holds the title of Distinguished Research Staff in the Computer Science and Mathematics Division at Oak Ridge National Laboratory (ORNL), Turing Fellow in the Computer Science and Mathematics Schools at the University of Manchester, and an Adjunct Professor in the Computer Science Department at Rice University. He specializes in numerical algorithms in linear algebra, parallel computing, the use of advanced-computer architectures, programming methodology, and tools for parallel computers. His research includes the development, testing and documentation of high quality mathematical software. He has contributed to the design and implementation of the following open source software packages and systems: EISPACK, LINPACK, the BLAS, LAPACK, ScaLAPACK, Netlib, PVM, MPI, NetSolve, Top500, ATLAS, and PAPI. He has published approximately 200 articles, papers, reports and technical memoranda and he is coauthor of several books. He was awarded the IEEE Sid Fernbach Award in 2004 for his contributions in the application of high performance computers using innovative approaches and in 2008 he was the recipient of the first IEEE Medal of Excellence in Scalable Computing; in 2010 he was the first recipient of the SIAM Special Interest Group on Supercomputing's award for Career Achievement. He is a Fellow of the AAAS, ACM, IEEE, and SIAM and a member of the National Academy of Engineering.

# Peng Du

# Peng Du is a Phd student at ICL working on fault tolerance and GPU related projects.

# Ian Foster

# Geoffrey Fox

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Fox received a Ph.D. in Theoretical Physics from Cambridge University **a**nd is now professor of Computer Science, Informatics, and Physics at Indiana University where he isdirector of the Community Grids Laboratory and chair of the Informatics department.  He is chief technology officer for Anabas Inc. He previously held positions at Caltech, Syracuse University and Florida State University. He has supervised the PhD of 58 students and published over 600 papers in physics and computer science. He currently works in applying computer science to Defense, particle physics, Earthquake and Ice-sheet Science and Chemical Informatics. Web 2.0, Grids(clouds) and multicore systems are his current interest. He is involved in several projects to enhance the capabilities of Minority Serving Institutions.

# Al Geist

Oak Ridge National Lab

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Al Geist is a Corporate Research Fellow at Oak Ridge National Laboratory. He is the Chief Technology Officer of the Leadership Computing Facility and also leads a 35 member Computer Science Research Group.

He is one of the original developers of PVM (Parallel Virtual Machine), which became a world-wide de facto standard for heterogeneous distributed computing. Al was actively involved in the design of the Message Passing Interface (MPI-1 and MPI-2) standard and is on the MPI-3 steering committee. His present research involves developing numerical algorithms for many-core processors and developing fault tolerant and self-healing algorithms for system software.

In his 22 years at ORNL, he has published two books and over 200 papers in areas ranging from heterogeneous distributed computing, numerical linear algebra, parallel computing, collaboration technologies, solar energy, materials science, biology, and solid state physics.

Al has won numerous awards in high-performance and distributed computing including: the Gordon Bell Prize (1990), the international IBM Excellence in Supercomputing Award (1990), an R&D 100 Award (1994), two DOE Energy 100 awards (2001), the American Museum of Science and Energy Award (1997), and the Supercomputing Heterogeneous Computing Challenge several times (1992, 1993, 1995, 1996).

You can find out more about Al and a complete list of his publications on his web page: <http://www.csm.ornl.gov/~geist>

# Patrick Geoffray

Patrick Geoffray was born in France, but he is not French anymore. He received his PhD in 2000 from the University of Lyon, under the guidance of Bernard Tourancheau, and immediately joined Myricom. He has ported a few MPI implementations, designed the MX firmware, accelerated UDP sockets, developed adaptive routing techniques, and a few other things.

He also believes Grid computing people comes from the planet Melmac.

# Andrew Grimshaw

Department of Computer Science

University of Virginia

Andrew Grimshaw received his Ph.D. from the University of Illinois at Urbana-Champaign in 1988. He joined the University of Virginia as an Assistant Professor of Computer Science, becoming Associate Professor in 1994 and Professor in 1999. He is the chief designer and architect of Mentat and Legion. In 1999 he co-founded Avaki Corporation, and served as its Chairman and Chief Technical Officer until 2003. In 2003 he won the Frost and Sullivan Technology Innovation Award.

Andrew is a leading member of the Open Grid Forum (OGF), serving both as a member of the OGF's Steering Committee and as Architecture Area Director.  He is also an active member of the OGF's OGSA Working Group (WG) and a co-chair of the OGSA Naming WG and the Basic Execution Service WG. He has served on the National Partnership for Advanced Computational Infrastructure (NPACI) Executive Committee, the DoD MSRC Programming Environments and Training (PET) Executive Committee, the CESDIS Science Council, the NRC Review Panel for Information Technology, and the Board on Assessment of NIST Programs. Andrew is the author or co-author of over 50 publications and book chapters. His current project, Genesis II, is an open source, standards-based, Grid system that focuses on making Grids easy-to-use and accessible to non computer-scientists.

# Bill Gropp

# Thomas Herault

# Tony Hey

Microsoft Corp**.**

Corporate Vice President for Technical Computing

As corporate vice president for technical computing, Tony Hey coordinates efforts across Microsoft Corp. to collaborate with the global scientific community. He is a well-known researcher in the field of parallel computing, and his experience in applying computing technologies to scientific research helps Microsoft work with researchers worldwide in various fields of science and engineering.

Before joining Microsoft, Hey worked as head of the School of Electronics and Computer Science at the University of Southampton, where he helped build the department into one of the top five computer science research institutions in England. Since 2001, Hey has served as director of the United Kingdom’s e-Science Initiative, managing the government’s efforts to provide scientists and researchers with access to key computing technologies.

Hey is a fellow of the U.K.’s Royal Academy of Engineering and has been a member of the European Union’s Information Society Technology Advisory Group. He also has served on several national committees in the U.K., including committees of the U.K. Department of Trade and Industry and the Office of Science and Technology. Hey received the award of Commander of the Order of the British Empire honor for services to science in the 2005 U.K. New Year’s Honours List.

Hey is a graduate of Oxford University, with both an undergraduate degree in physics and a doctorate in theoretical physics.

# Jeff Hollingsworth

Jeffrey K. Hollingsworth is a Professor and Associate Chair of the Computer Science Department at the University of Maryland, College Park. He also has an appointment in the University of Maryland Institute for Advanced Computer Studies and the Electrical and Computer Engineering Department. He received his PhD and MS degrees in computer sciences from the University of Wisconsin. He received a B. S. in Electrical Engineering from the University of California at Berkeley.

Dr. Hollingsworth’s research seeks to develop a unified framework to understand the performance of large systems and focuses in several areas. First, he developed new approach, called dynamic instrumentation, to permit the efficient measurement of large parallel applications. Second, he has developed an auto-tuning framework called Active Harmony that can be used to tune kernels, libraries, or full applications. Third, he is investigating the interactions between different layers of software and hardware to understand how they influence performance.

# Heike Jagode

# Heike Jagode received her B.Sc. and M.Sc. degrees in Applied Mathematics from The University of Applied Sciences, Mittweida, Germany in 2001. She earned her second M.Sc. in High Performance Computing from The University of Edinburgh, Edinburgh Parallel Computing Centre (EPCC) in Scotland in 2006. She held a Research Associate position at the Center for Information Services and High Performance Computing (ZIH) at The Dresden University of Technology in Germany from 2002 to 2008. Since March 2008 she is a Senior Research Associate at the Innovative Computing Laboratory (ICL) at The University of Tennessee in Knoxville (UTK). Heike's current research interests include studies in computer science for performance of high performance computing applications and architectures, focusing primarily on developing methods and tools for scalable performance analysis, tuning and optimization of HPC applications. She is also currently enrolled in a Ph.D. program at the Department of Computer Science at UTK (Fall 2009).

# Emmanuel Jeannot

Emmanuel Jeannot is currently full-time researcher at INRIA (Institut National de Recherche en Informatique et en Automatique) and is doing its research at the LORIA laboratory, near Nancy France. From Sept. 1999 to Sept. 2005 he was associate professor at the Université Henry Poincaré, Nancy 1.

He got his PhD and Master degree of computer science (resp. in 1996 and 1999) both from Ecole Normale supérieure de Lyon.

His main research interests are scheduling for heterogeneous and large- scale environments, data redistribution, experimental tools, adaptive online compression and programming models.

# Tahar Kechadi

Tahar Kechadi was awarded PhD and a DEA (Diplome d'Etude Approfondie) - Masters degree - in Computer Science from University of Lille 1, France. After working as a post-doctoral researcher under TMR program at UCD, he joined UCD in 1999 as a permanent staff member of the School of Computer Science & Informatics. He is currently a senior lecturer at School of Computer Science and Informatics, UCD.

His current research interests are primary in: 1) Grid computing and Grid software, and 2) Distributed data mining on Grid platforms. His current research projects’ goals are twofold: 1) design, develop and implement innovative distributed data mining techniques for real-world data intensive applications, such as telecommunication systems, banking and finance. 2) Provide these techniques with services and middleware tools in order to take advantage of the available distributed platforms such as the Grid.

He is a member of the communication of the ACM journal and IEEE computer society.

# Carl Kesselman

Carl Kesselman is a Professor in the departments of Industrial and System Engineering and Computer Science in the School of Engineering at the University of Southern California.  Dr. Kesselman is also a Fellow in the Information Sciences Institute where he is the co-director of the Medical Information Systems Division. He received a Ph.D. in Computer Science from the University of California, Los Angeles, a Master of Science degree in Electrical Engineering from the University of Southern California, and Bachelor’s degrees in Electrical Engineering and Computer Science from the University at Buffalo. Dr. Kesselman also serves as Chief Scientist of Univa Corporation, a company he founded with Globus co-founders Ian Foster and Steve Tuecke.

Dr. Kesselman’s current research interests are focused on the applications of distributed computing technology to Medical Informatics.  In addition, he is interested in all aspects of Grid computing, including basic infrastructure, security, resource management, high-level services and Grid applications. He is the author of many significant papers in the field. Together with Dr. Ian Foster, he initiated the Globus Project™, one of the leading Grid research projects. The Globus project has developed the Globus Toolkit®, the de facto standard for Grid computing.

Dr. Kesselman received the 1997 Global Information Infrastructure Next Generation Internet award, the 2002 R&D 100 award, the 2002 R&D Editors choice award, the Federal Laboratory Consortium (FLC) Award for Excellence in Technology Transfer and the 2002 Ada Lovelace Medal from the British Computing Society for significant contributions to information technology. Along with his colleagues Ian Foster and Steve Tuecke, he was named one of the top 10 innovators of 2002 by InfoWorld Magazine. In 2003, he and Dr. Foster were named by MIT Technology Review as the creators of one of the "10 technologies that will change the world." He was recognized in 2007 along with Dr. Stephan Eberich by an Internet2 Idea award and Computerworld's Horizon award.  In 2006 Dr. Kesselman received an Honorary Doctorate from the University of Amsterdam.

# Thilo Kielmann

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Thilo Kielmann studied Computer Science at Darmstadt University of Technology, Germany. He received his Ph.D. in Computer Engineering in 1997, and his habilitation in Computer Science in 2001, both from Siegen University, Germany. Since 1998, he is working at Vrije Universiteit Amsterdam, The Netherlands, where he is currently Associate Professor at the Computer Science Department. His research interests are in the area of high-performance, distributed computing, namely programming environments and runtime systems for grid and cloud applications. He is a steering group member of the Open Grid Forum and of Gridforum Nederland.

# Jakub Kurzak

# Julien Langou

# Alexey Lastovetsky

Alexey Lastovetsky received a PhD degree from the Moscow Aviation Institute in 1986, and a Doctor of Science degree from the Russian Academy of Sciences in 1997. His main research interests include algorithms, models and programming tools for high performance heterogeneous computing. He is the author of mpC, the first parallel programming language for heterogeneous networks of computers. He designed HeteroMPI, an extension of MPI for heterogeneous parallel computing (with R. Reddy), and SmartGridSolve, an extension of GridSolve aimed at higher performance of scientific computing on global networks (with T. Brady, et al.). He has contributed into heterogeneous data distribution algorithms (with A. Kalinov, R. Reddy, et al.), proposed and studied realistic performance models of processors in heterogeneous environments, including the functional model and the band model (with R. Reddy and R. Higgins). He also works on analytical communication performance models for homogeneous and heterogeneous clusters. He published over 90 technical papers in refereed journals, edited books and proceedings of international conferences. He authored the monographs "Parallel computing on heterogeneous networks" (Wiley, 2003) and "High performance heterogeneous computing" (with J. Dongarra; Wiley, 2009). He is currently a senior lecturer in the School of Computer Science and Informatics at University College Dublin, National University of Ireland. At UCD, he is also the founding Director of the Heterogeneous Computing Laboratory (<http://hcl.ucd.ie/>).

# Laurent Lefevre

Laurent Lefèvre obtained his Ph.D. in Computer Science in January 1997 at LIP Laboratory (Laboratoire Informatique du Parallelisme) in ENS-Lyon (Ecole Normale Supérieure), France. From 1997 to 2001, he was assistant professor in computer science in Lyon 1 University and a member of the RESAM Laboratory (High Performance Networks and Multimedia Application Support

Lab.) Since 2001, he is a permanent researcher in computer science at INRIA (the French Institute for Research in Computer Science and Control). He is a member of the RESO team (High Performance Networks, Protocols and Services) from the LIP laboratory in Lyon, France. He has organized several conferences in high performance networking and computing and he is a member of several program committees.

He has co-authored more than 60 papers published in refereed journals and conference proceedings. He is a member of IEEE and takes part in several research projects. His research interests include: grid and distributed computing and networking, power aware systems, autonomic networking, fault tolerance, high performance networks protocols and services, autonomic and active networks and services, active grid, disruption-tolerant networking, cluster computing, distributed shared memory systems and data consistency. His web site is: <http://perso.ens-lyon.fr/laurent.lefevre>

# Andrew Lumsdaine

Andrew Lumsdaine received the PhD degree in Electrical Engineering and Computer Science from the Massachusetts Institute of Technology in 1992. He is presently a Professor of Computer Science at Indiana University, where he is also the director of the Open Systems Laboratory. His research interests include computational science and engineering, parallel and distributed computing, mathematical software, numerical analysis, and radiance photography.

# Piotr Luszczek

Piotr Luszczek has recently rejoined ICL at the University of Tennessee Knoxville as a Research Scientist. Before that he worked on parallel MATLAB at the MathWorks. He earned his doctorate degree for the innovative use of dense matrix computational kernels in sparse direct and iterative numerical linear algebra algorithms.

He applied this experience to develop fault-tolerant libraries that used out-of-core techniques. His current work involves standardization of benchmarking of large supercomputer installations. He is an author of self-adapting software libraries that automatically choose the best algorithm to efficiently utilize available hardware and can optimally process the input data. He is also involved in high performance programming language design and implementation.

# Satoshi Matsuoka

Satoshi Matsuoka is a full Professor at the Global Scientific Information and Computing Center (GSIC) of Tokyo Institute of Technology (Tokyo Tech). He is the technical leader in the construction of the TSUBAME supercomputer, which became the fastest supercomputer in Asia-Pacific in June, 2006, and continued to be Japan's #1 for 4 consecutive Top 500s during June 2006 - May 2008. He has also pioneered Grid computing research in Japan, and in particular co-lead the Japanese $100 million NAREGI project, whose aim was to develop and foster research grid infrastructure in Japan. He has chaired many ACM/IEEE international conferences, and will be the technical papers chair for SC09. He has won many awards including the JSPS Prize from the Japan Society for Promotion of Science in 2006, from his Majesty Prince Akishinomiya, for the first time as a Computer Scientist.

# Shirley Moore

# Terry Moore

Terry Moore is currently Associate Director of the Innovative Computing Laboratory at the Computer Science Department at University of Tennessee. He received his BA in Philosophy from Purdue University and his Ph.D. in Philosophy from the University of North Carolina, Chapel Hill. His research interests include collaboration technologies, distributed and grid computing, long term digital preservation and logistical networking.

# Christine Morin

Christine Morin received her engineering degree from the Institut National des Sciences Appliquées (INSA), of Rennes (France), in 1987 and master and PhD degrees in Computer Science from the University of Rennes I in 1987 and 1990, respectively. In March 1998, She got her Habilitation à Diriger des Recherches in Computer Science from the Université de Rennes 1.

Since 1991, she has held a researcher position at INRIA and has carried out her research activities at IRISA/INRIA-Rennes. Since January 2000, she has been a member of the INRIA PARIS project-team contributing to the programming of large scale parallel and distributed systems. From October 2000 to August 2002, she has held a temporary assistant professor position at IFSIC (University of Rennes I). Since September 2002, she has held a senior researcher position at INRIA. Since January 2010, she is the head of the new Myriads research team on the design and implementation of autonomous distributed systems.

She led research activities on single system image OS for high performance computing in clusters, resulting in Kerrighed cluster OS, now developed in open source ([http://www.kerrighed.org](http://www.kerrighed.org/)). She is a co-founder of Kerlabs start-up, created in 2006 to exploit Kerrighed  technology ([http://www.kerlabs.com](http://www.kerlabs.com/)). She is the scientific coordinator of the XtreemOS project which is a 4-year European integrated project started in June 2006 ([http://wwwxtreemos.eu](http://wwwxtreemos.eu/)).  Her research interests are in operating systems, distributed systems, fault tolerance, cluster, grid and cloud computing. She is the author of more than 100 papers in referred international journals and conferences. She is a member of ACM and IEEE.

# Christian Obrecht

# Phil Papadopoulos

# Dr. Papadopoulos received his PhD in 1993 from UC Santa Barbara in Electrical Engineering. He spent 5 years at Oak Ridge National Laboratory as part of the Parallel Virtual Machine (PVM) development team. He came to UCSD as research professor in computer science in 1998 and still holds and adjunct appointment.  He is currently the Director for UC Systems at the San Diego Supercomputer Center (SDSC).  UC systems focuses on providing robust computing and storage infrastructure for University of California researchers and their colleagues.  He is the architect of the Triton resource  ([tritonresource.sdsc.edu](http://tritonresource.sdsc.edu/)) which is a network, storage and memory rich, mid-scale (3000 core) cluster that is also an ongoing experiment in economic sustainability for campus-scale computing.   In addition to duties at SDSC, his research interests revolve around distributed, clustered, and cloud-based systems and how they can be used more effectively in an  expanding bandwidth-rich environment.  Dr. Papadopoulos is a deeply involved investigator for key research projects at UCSD including The National Biomedical Computation Resource (NBCR), the Pacific Rim Applications and Grid Middlware Assembly (PRAGMA) and the Community Cyberinfrastructure for Advanced Marine Microbial Ecology Research and Analysis (CAMERA).  He is well known for leading the development of the open-source, NSF-funded Rocks Cluster toolkit (OCI-0721623), which has installed base of 1000s of clusters.   Rocks ([www.rocksclusters.org](http://www.rocksclusters.org/)) is used for both research and production systems with scalability to 1000s of nodes.  Our work in Rocks focuses on developing practical, scalable, and robust virtual machine authoring and implementation of hybrid clusters that consist of both real and virtual hardware. More recently, we have demonstrated seamlessly extending the number of nodes in a local cluster with additional virtualized resources housed on campus clouds and/or in Amazon EC2.

# Manish Parashar

# Jelena Pjesivac-grbovic

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Jelena Pjesivac-Grbovic is an Software Engineer in Systems Infrastructure at Google Inc.  She received PhD in Computer Science from the University of Tennessee, Knoxville focused on automatic and adaptive optimizations of MPI collective operations under supervision of Dr. Jack Dongarra, Dr. George Bosilca, and Dr. Graham Fagg.  At the University of Tennessee, she was an active developer on FT-MPI and OpenMPI projects.  Prior to the UT, she worked as an undergraduate research assistant at the Mathematical Modeling and Analysis group at the Los Alamos National Laboratory, modeling tumor growth under supervision of Dr. Ji Yiang.  She received B.S. degrees in Computer Science and Physics from Ramapo College of New Jersey.

# Jim Plank

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James S. Plank received his B.S. from Yale University in 1988 and his Ph.D. from Princeton University in 1993. He is a Professor in the Electical Engineering and Computer Science department at the University of Tennessee. His research interests are in fault-tolerance, storage systems, erasure coding and distributed computing. His current focus is the design and implementation of high performance erasure codes to tolerate failures in storage systems, and he is the author of Jerasure, an open-source erasure-coding library that has seen wide-scale use in industry and academia. He is a past Associate Editor of IEEE Transactions on Parallel and Distributed Computing, and a member of the IEEE Computer Society.

# Thierry Priol

Thierry Priol is senior scientist at INRIA. He got a PhD in computer science from the University of Rennes 1 in 1989 and a “Habilitation à diriger des recherches” in 1995. He carried out research actitivies in the area of parallel computing, parallel rendering and software tools based on the shared virtual memory concept. He was involved in research activities dealing with the programming of grid infrastructures in particular the design of software components for code coupling applications. More recently, he launched a research activity aiming at programming service infrastructres using the chemical computing paradigm. He is one of the co-founder and scientific advisor of the Kerlabs spin-off started in 2006 and selling operating system technologies for PC clusters.

From 1999 till 2009, he was the scientific leader of the PARIS project-team at INRIA Rennes Bretagne Atlantique. From 2000 till 2003, he was the deputy chair of the INRIA evaluation committee. From 2003 till 2007, he was the head of the ACI GRID from the Ministry of Research, the national grid initiative. From 2004 till 2008, he acted as the scientific coordinator of the CoreGRID network of excellence funded by the European Commission.

# From April 2009, he is Deputy Scientific Director assigned to the Research Department and the European Partnership Department in charge of the Networks, Systems and Services, Distributed Computing domain.

# Irene Qualters

# Padma Raghavan

Raghavan joined Penn State in Fall 2000 as a tenured Associate Professor in the Department of Computer Science and Engineering. She was subsequently promoted to Professor of Computer Science and Engineering in May 2005. In July 2007, Raghavan was appointed the first Director of the Institute for CyberScience at Penn State to promote multidisciplinary research and education in discovery and design through computation, mathematical modeling and data analysis.

Raghavan's research concerns high-performance computing and computational science. Focus areas include: algorithms for scalable sparse graph (symbolic) and matrix (numeric) computations including partitioning, mining and fast solvers, energy-aware performance scaling in chip multicore multiprocessor petascale regimes, and systems for multiscale modeling, simulation and knowledge extraction with a focus on scalable parallel algorithms, energy-aware supercomputing and large-scale modeling and simulation.

# Dan Reed

Daniel A. Reed is Microsoft’s Corporate Vice President for Extreme Computing Group, where he responsible for R&D on parallel and extreme scale computing, including cloud infrastructure, and also Technology Strategy and Policy, where he leads Microsoft’s long-term technology policy. Previously, he was the Chancellor’s Eminent Professor at UNC Chapel Hill, as well as the Director of the Renaissance Computing Institute (RENCI) and the Chancellor’s Senior Advisor for Strategy and Innovation for UNC Chapel Hill. He has also been Director of the National Center for Supercomputing Applications (NCSA) at UIUC, where he also led National Computational Science Alliance. He was also one of the principal investigators and chief architect for the NSF TeraGrid. He received his PhD in computer science in 1983 from Purdue University.

# Yves Robert

Yves Robert received the PhD degree from Institut National Polytechnique de Grenoble in 1986. He is currently a full professor in the Computer Science Laboratory LIP at ENS Lyon. He is the author of five books, 100+ papers published in international journals, and

130+ papers published in international conferences. His main research

interests are scheduling techniques and parallel algorithms for clusters and grids. Yves Robert served on many editorial boards, including IEEE TPDS. He was the program chair of HiPC'2006 in Bangalore and of IPDPS'2008 in Miami. He is a Fellow of the IEEE.

He has been elected a Senior Member of Institut Universitaire de France in 2007.

# Joel Saltz

Prior to coming to Emory, Dr. Joel H. Saltz was Dorothy M. Davis Professor in Cancer Research and Chair of the Department of Biomedical Informatics, Professor in the Department of Computer Science and Engineering, Professor and Vice Chair and Director of Pathology Informatics in the Department of Pathology, and Associate Vice President for Health Sciences at The Ohio State University. He also was Professor of Pathology and Informatics in the Department of Pathology at Johns Hopkins Medical School and Professor in the Department of Computer Science at the University of Maryland. Dr. Saltz is trained both as a computer scientist and as a medical scientist. He received BS and MS degrees in Mathematics and Physics from the University of Michigan and his MD-PhD in Computer Science from Duke University. He completed his residency in Clinical Pathology at Johns Hopkins University with extensive training in microbiology under Dr. William Merz and Dr. James Dick, and is a board certified Clinical Pathologist.

# Jennifer Schopf

Dr. Jennifer M. Schopf is a program officer at the National Science Foundation, originally in the Office of CyberInfrastructure where she specialized in middleware, networking, and campus bridging programs with an emphasis on sustainable approaches to pragmatic software infrastructure and currently in EPSCoR. She also holds an appointment at the Woods Hole Oceanographic Institution (WHOI), where she is helping to develop a vision and implementation strategy to strengthen WHOI’s participation in cyberinfrastructure and ocean informatics programs. Prior to this, she was a Scientist at the Distributed Systems Lab at Argonne National Laboratory for 7 years, and spent 3½ years as a researcher at the National eScience Center in Edinburgh, UK. She received MS and PhD degrees from the University of California, San Diego in Computer Science and Engineering and a BA from Vassar College. Currently, her research interests include monitoring, performance prediction, and anomaly detection in distributed system environments. She has co-edited a book, co-authored over 50 refereed papers, and given over 100 invited talks.

# Robert Schreiber

Robert Schreiber is a distinguished technologist at Hewlett Packard Laboratories. His research interests include scientific computing, sequential and parallel algorithms for matrix computation, embedded computer systems, and compiler optimization of parallel programs. Dr. Schreiber received his PhD from Yale University. He has held faculty positions at Stanford University and Rensselaer Polytechnic Institute, was Chief Scientist of Saxpy Computer Corporation, and was a senior scientist at the NASA Ames Research Center. Contact him at rob.schreiber@hp.com.

# Chuck Seitz

Chuck Seitz, CEO of Myricom, earned BS, MS, and PhD degrees from MIT, and during the 17 years prior to founding Myricom in 1994 was a Professor of Computer Science at Caltech. Myricom products are based in part on the communication, switching, and software technologies that Chuck's Caltech research group developed under DARPA sponsorship for advanced multicomputers. Among Chuck's professional honors, he was elected to the US National Academy of Engineering in 1992 "for pioneering contributions to the design of asynchronous and concurrent computing systems."

# Satoshi Sekiguchi

He was born in 1959, received B.S. from Department of Information Science, Faculty of Science, the University of Tokyo in 1982, and M.SE. from University of Tsukuba in 1984 respectively. He joined Electrotechnical Laboratory, Agency of Industrial Science and Technology in 1984 to engage research in high performance and parallel computing widely from the computer architecture, compiler, numerical algorithm, performance evaluation methods. He served as the deputy director of Research Institute of Information Technology, AIST in 2001, had been the founding director of Grid Technology Research Center (GTRC), AIST in 2002-2008. He is currently the Director of Information Technology Research Institute (ITRI), AIST. Presently, The research led by himself and/or his team is being undertaken on advanced grid programming tools such as Ninf/GridRPC and GridMPI, high-speed networking, the demonstration of applications using grid technology (including earth science), and on issues that are crucial to the actual deployment of grid technology for data centers. He has been contributing to the Open Grid Forum as a member of board of directors, and is also a member of IEEE, SIAM, IPSJ.

# Fengguang Song

# Thomas Sterling

Dr. Thomas Sterling is a Professor of Computer Science at Louisiana State University, a Faculty Associate at California Institute of Technology, a Distinguished Visiting Scientist at Oak Ridge National Laboratory, and a Fellow of Computer Science Research Institute at Sandia National Laboratory. He received his PhD as a Hertz Fellow from MIT in 1984. Dr. Sterling is probably best known as the “father” of Beowulf clusters and for his research on Petaflops computing architecture. He was one of several researchers to receive the Gordon Bell Prize for this work on Beowulf 1997. In 1996, he started the inter-disciplinary HTMT project to conduct a detailed point design study of an innovative Petaflops architecture. He currently leads the MIND memory accelerator architecture project for scalable data-intensive computing and is an investigator on the DOE sponsored Fast-OS Project to develop a new generation of configurable light-weight parallel runtime software system. Thomas is co-author of five books and holds six patents.

# Vaidy Sunderam

Vaidy Sunderam is a faculty member at Emory University. His research interests are in parallel and distributed processing systems and infrastructures for collaborative computing. His prior and current research efforts have focused on system architectures and implementations for heterogeneous metacomputing, including the Parallel Virtual Machine system and several other frameworks including IceT, CCF, Harness, and Unibus. Vaidy teaches computer science at the beginning, advanced, and graduate levels, and advises graduate theses in the area of computer systems.

# Martin Swany

Martin Swany is an Assistant Professor in the Department of Computer and Information Sciences at the University of Delaware. He received his B.A. and M.S. from the University of Tennessee in 1992 and 1998, respectively. He completed his Ph.D. at the University of California, Santa Barbara in 2003 and joined the faculty of the University of Delaware that year. He is a 2004 recipient of the US Department of Energy Early Career Principal Investigator award. Since 2005, Swany has been the Internet2 Faculty Fellow involving work in network metrics and performance-enhancing middleware. His research interests include high-performance parallel and distributed computing and networking.

# Valarie Taylor

Valerie E. Taylor earned her B.S. in Electrical and Computer Engineering and M.S. in Computer Engineering from Purdue University in 1985 and 1986, respectively, and a Ph.D. in Electrical Engineering and Computer Science from the University of California, Berkeley, in 1991. From 1991-2002, Dr. Taylor was a member of the faculty in the Electrical and Computer Engineering Department at Northwestern University. Dr. Taylor joined the faculty at Texas A&M University as Head of the Dwight Look College of Engineering’s Department of Computer Science in January of 2003, and is, also currently a holder of the Royce E. Wisenbaker Professorship II. Her research interests are in the areas of computer architecture and high performance computing, with particular emphasis on mesh partitioning for distributed systems and the performance of parallel and distributed applications. She has authored or co-authored over 80 papers in these areas. Dr. Taylor has received numerous awards for distinguished research and leadership, including the 2002 IEEE Harriet B. Rigas Award for woman with significant contributions in engineering education, the 2002 Outstanding Young Engineering Alumni from the University of California at Berkeley, the 2002 Nico Habermann Award for increasing the diversity in computing, and the 2005 Tapia Achievement Award for Scientific Scholarship, Civic Science, and Diversifying Computing. Dr. Taylor is a member of ACM and Senior Member of IEEE-CS.

# Rajeev Thakur

Rajeev Thakur is a Computer Scientist in the Mathematics and Computer Science Division at Argonne National Laboratory, where he has been working for the past 15 years in the areas of message passing libraries and parallel I/O. He is also a Senior Fellow in the Computation Institute at the University of Chicago and an Adjunct Associate Professor at Northwestern University. He is an author of the ROMIO MPI-IO library and the MPICH2 MPI implementation and is an active participant in the MPI Forum.

# Bernard Tourancheau

Prof. Bernard Tourancheau on leave from University of Lyon - France

After his studies of applied mathematics and computer science Bernard Tourancheau got a PhD from Institut National Polytechnique of Grenoble. He then obtained a CNRS Researcher position at Ecole Normale Superieur de Lyon in 1989 and spent two years on leave at the University of Tennessee. In 1995, he got a Professor position at the University of Lyon where he created a research laboratory associated within INRIA, specialized in high speed networking and clusters. He joined SUN Microsystems Laboratories in 2000 as a Principal Investigator in the DARPA HPCS project. He is actually ending his sabbatical period, learning about research in renewable energy technologies.

# Anne Trefethen

# Jeff Vetter

Jeffrey Vetter is a computer scientist in the Computer Science and Mathematics Division (CSM) of Oak Ridge National Laboratory (ORNL), where he leads the Future Technologies Group. His research interests lay largely in the areas of experimental software systems and architectures for high-end computing. Jeff earned his Ph.D. in Computer Science from the Georgia Institute of Technology; he joined CSM in 2003. Jeff is also an Adjunct Professor in the College of Computing at Georgia Tech.

# Xavier Vigouroux

# Rich Vuduc

# David Walker

David Walker is director of the Welsh e-Science Centre and a professor in the School of Computer Science of Cardiff University, where he heads the Distributed Collaborative Computing group. He has conducted research into parallel and distributed software environments for the past 20 years, about 10 years of which time was spent in the United States, and has published over 100 papers on these subjects. David played a leading role in initiating and guiding the development of the MPI specification for message-passing, and has co-authored a book on MPI. David also contributed to the ScaLAPACK library for parallel numerical linear algebra computations. David’s research interests include software environments for distributed scientific computing, problem-solving environments, parallel applications and algorithms, and cellular automata. David serves on the editorial boards of *Concurrency and Computation: Practice and Experience*, and *The International Journal of High Performance Computing Applications*.

# Michael Wolfe

# Hans Zima

Hans P. Zima is a Principal Scientist at JPL and a Professor Emeritus of the University of Vienna, Austria. He received his Ph.D. degree in Mathematics and Astronomy from the University of Vienna.

His major research interests have been in the fields of high-level programming languages, compilers, operating systems, and advanced software tools. In the early 1970s, while working in industry, he designed and implemented one of the first high-level real-time languages for the German Air Traffic Control Agency. During his tenure as a Professor of Computer Science at the University of Bonn, Germany, he contributed to the German supercomputer project “SUPRENUM”, leading the design of the first Fortran-based compilation system for distributed-memory architectures (1989). After his move to the University of Vienna, he became the chief designer of the Vienna Fortran language that provided a major input for the High Performance Fortran standard (1998). His research since joining JPL in 2001 included the design of the “Chapel” programming language in the framework of the DARPA-sponsored High Productivity Computing Systems (HPCS) program; more recently, he is leading an effort for providing software-based fault tolerance for future high-performance space-borne computing systems.

Dr. Zima is the author or co-author of about 200 publications, including 4 books.