

CASC Meeting

September 14-16, 2016

Speaker Information

CASC Officers

Dr. Curt Hillegas, Associate CIO, Research Computing, Princeton University, CASC Chair, curt@princeton.edu

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CASC Meeting Speakers

Dr. Roger Bielefeld, RDWG Co-Chair, Case Western Reserve University - Roger Bielefeld is Senior Director for Research Computing and Cyberinfrastructure at Case Western Reserve University, where he has been since 1990. Roger has over 30 years of computing and communications technology experience in higher education. He has held faculty appointments at CWRU in Biostatistics and in Operations Research and at Cleveland State University in Computer and Information Science. He holds master's degrees in Mathematics from Miami University and Computer Engineering from CWRU, and a Ph.D. in Biostatistics from CWRU. Roger.bielefeld@case.edu

Amy Starzynski Coddens, CACR, Indiana University – Amy Starzynski Coddens serves as the Education, Outreach and Training Manager at Indiana University’s Center for Applied Cybersecurity Research (CACR). She is a graduate of the IU School of Education (M.S. ’06 & M.S. ’09). Amy comes to the CACR and CTSC from a background in P-16 education, research and outreach. She has worked for the government, in industry and in academia, contributing to projects with the New England Research Institute, Harvard’s PEAR Institute, the United States Department of Education’s Office of Special Education Programs, NASA and the IU Kelley School of Business. astarzyn@indiana.edu

R. Erin Fogarty, Case Western Reserve University - Ms. Fogarty is an Information Assurance Analyst in the Case Western Reserve University (CWRU) Information Security Office (ISO) and serves as the information security lead for the CWRU Institute for Computational Biology an academic collaboration between CWRU, University Hospitals Case Medical Center (UHCMC), and the Cleveland Clinic Foundation (CCF). Ms. Fogarty has extensive experience in research administration as a Certified Research Administrator as well as an information security specialist. She comes to CWRU after 7 years at Georgetown University’s Lombardi Comprehensive Cancer Center and more recently the Information Security Office. Ms. Fogarty’s security focus is on security assessments, policy, information security in a research environment and compliance.

Michael Warfe, Assistant Director, ITS Research Director, Case Western Reserve University - Mike Warfe is the Assistant Director for Research Computing and Cyberinfrastructure at Case Western Reserve University. In his current role, Mike develops and implements IT strategy for research computing utilizing best practices in industry and academia. In addition to his research computing responsibilities, Mike is also staff member with the Case Comprehensive Cancer Center and the Institute for Computational Biology where he provides expertise in clinical informatics and big data. jmw22@case.edu

Dr. Irene Anne Jillson, Georgetown University - Dr. Jillson has designed and taught courses in global health ethics, global health systems and politics and global health research at Georgetown University, School of Nursing and Health Studies (NHS), School of Medicine and the School of Foreign Service. She also teaches medical ethics, graduate and undergraduate health research, and physician role and behavior. Dr. Jillson, who has a PhD in technology policy and management from Westminster University, was founder and President of Policy Research Incorporated, a private research firm that carried out local, national and international health and social policy research studies for more than 25 years. She has conducted extensive policy research and provided technical assistance and policy advice, particularly but not exclusively in Latin America and the Caribbean and in the Middle East and North Africa. Dr. Jillson's focus on bioethics includes research, teaching, mentoring of students, and providing assistance in the development and implementation of institutional review board and clinical ethics committees in the U.S. and other countries. She is currently Principal Investigator of a project to strengthen bioethics programs in Yemen, advisor to the American Association for the Advancement of Sciences on several projects related to bioethics, and advisor on other bioethics projects. She was Co-Principal Investigator of the landmark Comprehensive Study of the Ethical, Legal and Social Issues of Biomedical and Behavioral Research and Technology, and co-led the first international conference on social and ethical issues related to HIV/AIDS—held in Stockholm in 1984. Irene.Jillson@georgetown.edu

Dr. Stanley Ahalt, University of North Carolina at Chapel Hill; Director, Renaissance Computing Institute (RENCI). ahalt@renci.org

Dr. Amy Apon, Clemson University, Co-Director, Complex Systems, Analytics, and Visualization Institute, Professor and Chair, Division of Computer Science, School of Computing - Dr. Apon was a Program Officer in the Computer and Network Systems Division of the CISE Directorate of the National Science Foundation from 1/2015 to 1/2016. In this role she managed the proposal submission and review processes for multiple programs, including Computer Systems Research, Exploiting Parallelism and Scalability, Critical Technologies for Big Data, and Smart and Connected Health. She, made funding recommendations, and interacted with a large community of researchers. Dr. Apon was the elected Chair of the Coalition for Academic Scientific Computation (CASC, <http://www.casc.org/>) in 2011 and 2012. She served as Vice Chair during 2009-2010. While Vice Chair of CASC, Apon was a co-PI and organizer of the NSF funded Workshop on Sustainable Funding Models for Research Computing, held at Cornell University, May, 2010. This workshop explores critical issues in sustaining the nation's research infrastructure and provides advice to the National Science Foundation. aapon@clemson.edu

Dr. Thomas Hauser, University of Colorado, Boulder, Director of Research Computing – Dr. Hauser earned his Ph.D. in mechanical engineering in computational fluid dynamics from the University of Technology in Munich, Germany. Before coming to CU Boulder, Dr. Hauser was the Director of the Center for High Performance Computing at Utah State University, and Associate Director for Research Computing at Northwestern University. Dr. Hauser was also the founding director of the Center for High Performance Computing at Utah State University. Thomas.Hauser@colorado.edu

Wayne Gilmore, Boston University, Director of Research Computing Services. waygil@bu.edu

Ralph Roskies, Pittsburgh Supercomputing Center. roskies@psc.edu

Dr. Guy Almes, Texas A&M - Guy Almes has been the Director of the Academy for Advanced Telecommunications and Learning Technologies since August 2006. He was formerly Chief Engineer for Internet2, and completed a two-year rotation at NSF's Office of Cyberinfrastructure. Dr. Almes is a leader and a pioneer in the development of the Internet. In July 2006 Dr. Almes was appointed to the President's Council of Advisors on Science and Technology (PCAST) Networking and Information Technology Technical Advisory Group. He was founder and director of Sesquinet, an NSFnet regional network for Texas universities, colleges and corporations. He has served as Chairman of the Federation of American Research Networks (FARnet) and Chairman of the Interconnectivity Working Group and the IP Performance Metrics Working Group of the IETF. The author of many technical papers on operating systems, software and networking, his current research interests are in the design of advanced wide-area networks appropriate for supporting advanced university applications, network performance measurement and analysis, and application of advanced Internet functionality, such as quality of service and multicast protocols. Dr. Almes received his B.A. in Mathematics and Engineering, magna cum laude, and M.E.E. from Rice University, and his Ph.D. in Computer Science from Carnegie Mellon University. galmes@tamu.edu

Dr. Dane Skow – dane@danekow.com

Dr. Tom Cheatham, University of Utah - Thomas Cheatham, Associate Professor of Medicinal Chemistry in the College of Pharmacy at the University of Utah, received his B.A. degrees in Chemistry and in Mathematics and Computer Science from Middlebury College in 1988, worked as a Programmer/Analyst at the Aiken Computational Lab at Harvard, then in 1990 joined the Pharmaceutical Chemistry PhD Program at the University of California San Francisco working with the late Peter Kollman. After receiving his PhD in 1997, Cheatham was a NRC postdoctoral fellow with Bernie Brooks at the National Institutes of Health before moving to Utah in 2000 where he managed the mine fields of multiple departments and research track professor positions to ultimately get tenure. Cheatham's research centers on the development, application and validation of biomolecular simulation methods to provide insight into biomolecular structure, dynamics, energetics and interactions. He is one of the core AMBER developers and primary author of the "ptraj" molecular dynamics trajectory analysis software. tec3@utah.edu

John Moore, INTERNET2 - John is the Associate Vice President of Network Architecture and Planning for Internet2, where he leads a talented group of engineers responsible for developing the next generation infrastructure that supports the Internet2 community's quest for discovery and innovation. Prior to joining Internet2, he spent nine years with MCNC, the operator of the North Carolina Research and Education Network (NCREN), where he held several technical and senior executive positions in the areas of service development, strategy, innovation and cybersecurity. John has been involved with the Research and Education networking community since 2000, starting with his position at North Carolina State University, where he focused on network technology testing as Director of the Centaur Lab and the NC Internet2 Technology Evaluation Center (NC-ITEC). John received a BS in Electrical Engineering degree from Case Western Reserve University in 1985. jmoore@internet2.edu

Dr. Andrew Bernat, CRA - Dr. Andrew Bernat was a founding member and chair of the Computer Science Department at the University of Texas at El Paso (spending 20 years there), NSF Program Director and now the Executive Director of the CRA. He has some 70 refereed publications, roughly equally in disciplinary research and in computing education, a large number of presentations and in excess of \$25 million in externally funded activities. In recognition of "... his success in creating arguably the strongest computer science department at a minority-serving institution ...", the Computing Research Association honored him with the 1997 A. Nico Habermann Award. Outside interests include steam locomotives, narrow gauge railroads, SCUBA and his wonderful grandchildren. abernat@cra.org

Linda Akli, Southeastern Universities Research Association (SURA) - As Assistant Director of Training, Education and Outreach, Linda Akli promotes and facilitates the awareness and use of cyberinfrastructure systems and services to new user communities, through the development of workshops, training events, conference exhibiting, and community building. Currently she is the XSEDE lead for Minority Serving

Institution Engagement and the Minority Research Community programs. Previously, Ms. Akli managed the Packard Graduate Scholars, the Merck/AAAS Undergraduate Research Program, and the development of the BioScie Education Network (BEN), which is part of the National Science Foundation - funded National Science Digital Library at the American Association for the Advancement of Science. Ms. Akli holds a BS in Computer Science from Rensselaer Polytechnic Institute and has additional education in Engineering Management, Advanced Networking, and Systems Engineering. akli@sura.org

Dr. Craig Stewart, Indiana University - Dr. Craig Stewart leads the Research Technologies division of University Information Technology Services (UITS), which serves IU's research and scholarship missions through computation, storage, and visualization facilities and support. Stewart is also Executive Director of the Pervasive Technology Institute (PTI), IU's flagship initiative for advanced IT research, development, and delivery in support of research, scholarship, and artistic performances. He is particularly involved in leading cyberinfrastructure services affiliated with PTI, and its activities in economic development, training, education, and outreach. He is also an adjunct professor in informatics, medical genetics, and biology, and has been a visiting faculty member in Computer Science, University of Stuttgart and a Fulbright Senior Scholar at the Technische Universitaet Dresden (Germany). Dr. Stewart holds a PhD in ecology and evolutionary biology from Indiana University, and a BA in mathematics and biology from Wittenberg University. stewart@iu.edu

Marisa Brazil, Arizona State University - Marisa Brazil has more than 8 years of experience in the engagement and support of ASU's research community that utilizes high performance computational resources and large scale data. She manages the outreach programs and initiatives that provide these resources to enable innovative research for ASU's faculty and students. marisa.brazil@asu.edu

Maneesha Sane, Software Carpentry and Data Carpentry - Maneesha Sane has an undergraduate degree in education and psychology and a graduate degree in educational linguistics. She has worked in the fields of education and nonprofit management for nearly 20 years. She has taught and managed school- and community-based educational programs for all ages in domains including cultural studies, literacy, and art. Maneesha is a self-taught programmer, skilled in Python, SQL, and VBA, among other technologies. She is the organizer of the Philadelphia Python Users Group and has taught several Python boot camps in Philadelphia, and is the Program Coordinator for Software Carpentry and Data Carpentry. maneesha@softwarecarpentry.org

Scott Lathrop, Blue Waters and XSEDE Training - Through his position with the Shodor Education Foundation, Inc., Scott Lathrop splits his time between being the Extreme Science & Engineering Discovery Environment (XSEDE) Manager of Workforce Development, and being the Blue Waters Technical Program Manager for Education. Lathrop has been involved in high performance computing and communications activities since 1986. Lathrop is currently coordinating education and outreach activities among the XSEDE Service Providers involved in the NSF funded XSEDE project. He coordinates the community engagement activities for the Blue Waters project. He helps ensure that Blue Waters and XSEDE education and outreach activities are coordinated and complementary. lathrop@illinois.edu

Melyssa Fratkin, The University of Texas at Austin, Texas Advanced Computing Center, Industrial Programs Director. As Industrial Programs Director, Melyssa oversees TACC's corporate partnerships, international partnerships, and government relations programs. mfratkin@tacc.utexas.edu

Ben Rogers, University of Iowa - Ben Rogers is the Sr. Director of Research Services in Information Technology Services at the University of Iowa. Ben's undergraduate work is in computer science and physics and he completed an MBA in 2011. Ben formed and currently oversees the University of Iowa HPC Program; Research Focused Data Storage Services, and provides technology focused consultative services to broad based university researchers. Prior to joining Research Services he worked in the University of Iowa Institute for Clinical and Translational Science leading efforts to deploy cyberinfrastructure in support of

diverse biomedical research. This work included the deployment of research data capture and management systems and a radiological image management and processing platform. He has also worked in a neuroimaging laboratory with responsibility for the IT environment and contributed to the development and implementation of analysis pipelines. ben-rogers@uiowa.edu

Henry Neeman, University of Oklahoma - Assistant Vice President, Information Technology – Research Strategy Advisor, and the Director of the OU Supercomputing Center for Education & Research (OSCER) — a division of OU Information Technology — as well as an associate professor in the College of Engineering and an adjunct associate professor in the School of Computer Science at the University of Oklahoma. hneeman@ou.edu

Preston Smith, Purdue University- Prior to graduating from Purdue's Computer and Information Technology program in 1998, Preston joined the IT community at Purdue as a system administrator for the Purdue Libraries. After 5 years administering UNIX systems for the Department of Physics, Preston joined ITaP as a systems engineer for grid and distributed computing projects. In 2011, Preston completed a Master's degree from the College of Technology, researching a model for quantifying the costs of a distributed computing system. After two years managing the R&D team for research computing, Preston moved from the systems side of the business to lead the customer-facing operation of Purdue's community cluster systems. In this role, Preston directs the engagement, support, and outreach to any researchers at the university who require high-performance computation or large-scale data storage. Since 2012, he has led numerous initiatives to empower researchers with tools to control their own computing resources. psmith@purdue.edu

Tim Polk, Executive Office, Office of Science and Technology Policy - Tim Polk is currently the Assistant Director for Cybersecurity in the Office of Science and Technology Policy (OSTP), where he is a member of the policy teams for cybersecurity, high performance computing, and quantum information science. He joined the National Institute of Standards and Technology (NIST) in 1982 and joined the computer security division in 1989. Initially, he performed research in integrity models, security tools for system administrators, and computer viruses. From 1995 through 2003, he focused exclusively on public-key infrastructure issues. Tim contributed to the development of numerous Internet Engineering Task Force (IETF) public key infrastructure (PKI) standards. Tim was a key contributor in the design and deployment of the Federal PKI, and helped establish the federated trust model. As one of the authors of FIPS 201, Personal Identity Verification, Tim helped realize the government-wide identity credentials envisioned by HSPD-12. He is also co-author of the book “Planning for PKI”. He has degrees in Computer Science and Electrical Engineering from University of Maryland. William_T_Polk@ostp.eop.gov

Dr. James Cuff, Harvard University - James Cuff is the Assistant Dean for Research Computing in the Division of Science in the Faculty of Arts and Sciences. James also performs the role of Distinguished Engineer for Research Computing in HUIT at Harvard University. His group supports advanced high performance technical computing (in excess of 60,000 processors), 2+PF of GPGPU, and large scale storage systems for data science at over 20+PB. The group was involved in the initial design, build and eventual support of the MGHPCC project where they now run scientific computing and academic research systems supporting multiple schools at Harvard University. Prior to working at Harvard, James managed the Applied Production Systems Group at the Broad Institute of Harvard and MIT. Before moving to the US, James created the high performance computing infrastructure for the Ensembl project at the Wellcome Trust Sanger Institute. While completing his D. Phil. in protein secondary structure prediction, James worked at the European Bioinformatics Institute in Cambridge. James holds a D. Phil. in Molecular Biophysics from Oxford University and a B.Sc. (Hons) in Chemistry with Industrial Experience from Manchester University. james_cuff@harvard.edu

Dr. Dana Brunson, Oklahoma State University - Dr. Brunson is Director of the High Performance Computing Center and is an adjunct associate professor in the Computer Science Department and the

Mathematics Department at Oklahoma State University (OSU). She earned her Ph.D. in Mathematics at the University of Texas at Austin in 2005 and her M.S. and B.S. in Mathematics from OSU. Dana is co-lead of the OneOklahoma Cyberinfrastructure Initiative (OneOCII) which provides CI resources to academic institutions statewide. She is also a member of the XSEDE Campus Champion leadership team and one of seven new Regional Champions. Dana is PI on OSU's NSF MRI award "Acquisition of a High Performance Compute Cluster for Multidisciplinary Research," resulting in the deployment of the largest externally funded supercomputer in state history. She is also co-PI on Oklahoma's NSF CC-NIE grant, "OneOklahoma Friction Free Network," a collaboration among OSU, OU, Langston and the Tandy Supercomputing Center. dana.brunson@okstate.edu

Patrick Schmitz, UC Berkeley - Patrick Schmitz is the Associate Director of Research IT at U.C. Berkeley, focusing on Architecture and Strategy. He manages the Research IT Architecture and Development group, is the Lead Architect of CollectionSpace, a collaboration that brings together a variety of cultural and academic institutions with the common goal of developing and deploying an open-source, web-based software application for the description, management, and dissemination of museum collections information. He is the Technical Architect of Berkeley Prosopography Services, a web-services application that supports discovery, analysis, and visualization of historical social networks. Mr. Schmitz also serves as a Consulting Architect on Project Bamboo, a collaboration that developed IT support for research in the humanities, the BambooDiRT registry of digital research tools, UC Libraries Digital Collection, a shared system for managing and providing access to unique digital content from the ten UC campus libraries, among others. He serves on program committees for a range of conferences and journals related to Web engineering, document engineering, and multimedia. pschmitz@berkeley.edu

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Irene Qualters, Advanced Cyberinfrastructure (ACI) – Irene Qualters is NSF Division Director. Prior to her NSF career, Irene had a distinguished 30-year career in industry, with a number of executive leadership positions in the technology sector. During her twenty years at Cray Research, she participated in the development of the first commercially successful auto-vectorizing compiler, the first multiprocessor version of UNIX, and Cray's landmark massively parallel computer, the T3E. For six years as Vice President, she led Information Systems for Merck Research Labs, focusing on international cyberinfrastructure to advance all phases of pharmaceutical R&D. Irene is an expert in parallel computer system architectures and in a wide variety of software development arenas, from scientific applications to file systems and operating systems. iqualte@nsf.gov

Kevin Thompson, National Science Foundation - serves as a Program Director in NSF's Advanced Network Infrastructure and Research (ANIR) division of CISE. He is responsible for the NSF Middleware Initiative program and the Experimental Infrastructure Networks program. He started at NSF in January, 2003. Prior to NSF, Mr. Thompson was Senior Manager in MCI's Advanced Internet Technologies department, responsible for engineering and operation of the vBNS network and development of advanced network services. Mr. Thompson received a MS in computer science from George Washington University (1992) and a BS in computer science from the University of Virginia (1987). kthomps@nsf.gov