## 2015 NSF Cybersecurity Summit for Large Facilities and Cyberinfrastructure

Bios for Speakers, Authors, Program Committee Members, Organizers, and Student Awardees

## In alphabetical order by surname

**Johanna Amann** joined the International Computer Science Institute (ICSI) in September 2011, and has been a member of the Bro team since that time. She has worked on quite a few aspects of Bro, including the Input Framework, reworking the SSL/TLS support of Bro and, most recently, on enabling Bro to be able to support software defined networking. Before joining ICSI, she did her PhD as well as her Diploma (Masters equivalent) at the Technical University of Munich in Germany.

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Security Engineer Justin Azoff is responsible for implementing security plans; assisting other NCSA groups in hardening and protecting their systems; and developing, administering and utilizing NCSA's state-of-the-art cybersecurity monitoring infrastructure in support of the Center's objective of providing a highly reliable and functional computing environment. Working with other Security Engineers, Azoff identifies and investigates cybersecurity incidents across NCSA networks and systems and responds to these events, interdicting malicious behavior, mitigating security vulnerabilities, remediating compromised systems and adjusting cybersecurity controls as appropriate to ensure similar malicious behavior is prevented in the future. Azoff has been a Bro user since 2009 and became a Bro developer as part of his security engineer role when he joined NCSA in 2013.

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**Dora Baldwin** is a graduate student of California State University, San Bernardino where she is pursuing her Masters of Public Administration with a concentration in Cyber Security. She is a first year recipient of the CyberCorps: Scholarship for Service which is an academic program funded by the National Science Foundation and co-sponsored by the Department of Homeland Security. After graduation, she aspires to work for the federal government and specialize in cyber security oversight and development.

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**Steve Barnet** has specialized in supporting scientific and academic computing for nearly 20 years. During that time, he has worked in multiple domains including storage, networking, high-throughput computing, and security. He handled his first incident in 1995, a compromised Solaris system providing several important infrastructure services.

Steve is currently works for the IceCube project, a kilometer scale neutrino detector located at the geographic South Pole. He began collaborating with CTSC in 2013 to develop a Cybersecurity plan for the IceCube facility.

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**Jim Basney** is a senior research scientist at the National Center for Supercomputing Applications (NCSA) at the University of Illinois at Urbana-Champaign. Jim leads the CILogon project

(www.cilogon.org), which enables federated authentication to cyberinfrastructure. Jim is also the security technical lead for XSEDE (www.xsede.org) Software Development and Integration (SD&I), and Jim is the identity management lead for the Software Assurance Marketplace (SWAMP). Jim maintains the MyProxy credential management software, an "exemplar of success in cyberinfrastructure software sustainability" according to the report from the NSF workshop on CyberInfrastructure Software Sustainability and Reusability (http://hdl.handle.net/2022/6701). Jim is an active participant in The Americas Grid Policy Management Authority and the InCommon Technical Advisory Committee. Jim received his PhD in computer sciences from the University of Wisconsin-Madison where he worked as a graduate research assistant on the Condor project.

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Tony Baylis of Lawrence Livermore National Laboratory is the Laboratory's Director for the Office of Strategic Diversity and Inclusion Programs. In this position, he is the senior management advocate for diversity and inclusion for the Laboratory. The Office of Strategic Diversity and Inclusion Programs partners with senior management to develop strategies, initiatives, programs, and activities that promote the creation of a diverse and inclusive workforce and work environment. Tony serves as the Laboratory's EEO, AA and Diversity compliance officer as well. In conjunction with these tasks, Tony is responsible for overseeing the laboratory's interactions and successful execution in building, partnering and collaborating with governmental, educational, industrial, community interests and other stakeholders. LLNL has had a long history in working with Minority Serving Institutions, specifically relationships with American Indian Institutions, Hispanic Institutions and Historically Black College and Universities. He represents the Laboratory on the subjects of Diversity and Inclusion, STEM, Outreach Efforts, and Student Programs.

Tony's career represents 26 years of administrative, project, program, technical and organizational management. He has worked in a scientific and technical environment for over 20 years and has worked as an consultant in industry as well. Tony has extensive experience networking with a broad range of academic, industry, government and non-profit organizations that has educated him and helped him in his career. He serves on a number of conference program committees and advisory boards that promote STEM and diversity in science and technical careers. He has been an NSF reviewer and PI/Co-Pi for the Broadening Participation in Computing Program. Tony is also an ACM and ACM SIGGRAPH member, and serves as the Treasurer for ACM SIGGRAPH. He is a graduate of the University of Illinois.

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**Matt Bryson** is a senior majoring in Computer Science and minoring in Mathematics at California Lutheran University. He currently is working as part of the Computational Research Department at the Lawrence Berkeley National Lab as part of the UC Berkeley TRUST REU program. His research is focused on burst buffer applications, especially concerning exascale computing. He hopes to go on to a PhD in Computer Science, with an emphasis on systems.

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Randal Butler serves as Deputy Director for CTSC and focuses his expertise within the project on engagements and training. He is the director for NCSA's Integrated CyberInfrastructure (ICI) Directorate that is responsible for the management and oversight of all of NCSA's CI initiatives. ICI has roughly 115 technology focused staff that cover the range of R&D to operations across, systems, data, software & applications, cybersecurity, networking, and information technology. Butler is the former director for NCSA's Cybersecurity Division which is responsible for all NCSA cybersecurity operations

and also includes a nationally recognized team of cybersecurity researchers working in the applied space. He has been PI and co-PI on numerous NSF security focused awards, and he co-led Security Operations for XSEDE, as well as having been involved in a number of national-scale science CI initiatives.

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Jeff Collmann obtained his Ph.D in Social Anthropology from the University of Adelaide, South Australia, and completed a postdoctoral fellowship in medical ethics at the University of Tennessee. His research focuses on understanding the effect of bureaucracy and other complex forms of organization on everyday life. The results of his research on social change among Australian Aborigines have been published in numerous articles and as a book, Fringedwellers and Welfare: the Aboriginal response to bureaucracy. He joined Georgetown University in January 1992 where he developed a national reputation in the area of ensuring organizational compliance with health information security regulations, including work on the HIPAA security program for the Military Health System. He received the National Intelligence Medallion for helping develop a novel approach to biosurveillance. He has taught the anthropology of Australian culture, biodefense and infectious disease at Georgetown. He was promoted to the rank of Research Professor in the Department of Microbiology in Fall 2011. He currently serves as Director of Use Case Development for the AvesTerra Project, a "Big Data" project sponsored by the Office of the Senior Vice President for Research.

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**Michael Corn** is the Deputy CIO and CISO for Brandeis University. His areas of interest include privacy, identity management, and cloud services. He has been an active speaker and author on security and privacy and has participated in numerous Educause and Internet2 initiatives. He is a member of the Internet2 Netplus Product Advisory Board and until recently was also a member of the Box.com and Splunk Product Advisory Boards, as well as the Kuali Ready Product Board.

Prior to joining Brandeis he was the CISO and Chief Privacy and Security Officer of the University of Illinois at Urbana-Champaign. He is a graduate of the University of Colorado at Boulder and the University of Illinois at Urbana-Champaign.

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**Robert (Bob) Cowles** is principal in BrightLite Information Security performing cybersecurity assessments and consulting in research and education about information security and identity management. He served as CISO at SLAC National Accelerator Laboratory (1997-2012); participated in security policy development for LHC Computing Grid (2001-2008); and was an instructor at University of Hong Kong in information security (2000-2003).

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Anahita Davoudi has a Master in Computer science from North Carolina State University (2011), a Master in Electrical Engineering from University of Texas at Arlington (2012), and a Master in Data Mining from University of Central Florida (2016). She is a PhD student at computer science department at University of Central Florida. Her research interests are in Social Network trust modeling and recommender systems. She works on social network trust evolution and online trust relationships.

Before joining the PhD program, Anahita was a master student at University of Texas Arlington

where as part of her master thesis she was working on Salsa (a Structured Approach to Large-Scale Anonymity). Anahita Has been a research assistant at North Carolina State University during her master. She worked on cloud computing and service level agreement.

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Barbara Fossum is the Deputy Director for the George E. Brown, Jr. Network for Earthquake Engineering Simulations (NEES), at Purdue University in Lafayette, Indiana. In this capacity, Barbara directs the day-to-day operation and the development of cyberinfrastructure to support the \$105 million NSF distributed network of 14 earthquake engineering research centers. Barbara came to Purdue from the NSF where she was a Program Manager from 2001 to 2004, for the Information Technology Research initiative within the Office of Cyberinfrastructure Research. While currently devoting her time to Large Facility operations and management, she continues to be engaged in supercomputing activities and scientific visualization.

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Ardoth Hassler is Associate Vice President of University Information Services at Georgetown University. Her work focuses on policy, planning and research, including being the PI for an NSF CC-NIE award. In addition, she is Acting Director of the Student Information Systems group. Ardoth was on loan to the National Science Foundation 2007-2011 where she served as Senior Information Technology Advisor in the Office of the Chief Information Officer in the NSF Office of Information and Resource Management, Division of Information Systems. Her activities included work related to cybersecurity best practices for large research facilities, working on technology policy for the Foundation and large research facilities, assisting NSF in joining the InCommon Federation and introducing concepts of single-sign-on logon to Research.gov, leading the SSN Be Gone project to remove SSNs from FastLane and other systems where there was no business need, working on NSF's Got Green initiative, etc. She has prior experience serving on the program committees of the NSF Cybersecurity Summit, EDUCAUSE Annual Conferences, etc. She has a BS in Math (CS minor) from Oklahoma State University and an MS in Biostatistics from the University of Oklahoma.

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Jarilyn Hernandez is a fifth year doctoral student in Computer Science at the West Virginia College of Engineering and Mineral Resources. She participated in DC3 and her team won in the overall worldwide graduate division. She received her BS in Computer Science from the University of Puerto Rico Arecibo Campus. As an undergraduate student she had the opportunity to participate in a summer internship at the University of Science and Technology and Missouri, where she works in the development of a robot that could measure the signal strength indoors. Also she was awarded with the SMART scholarship for two years.

She also has a Masters Degree in Computer Science from the Polytechnic University of Puerto Rico. As a master student she received for two years the National Science Foundation scholarship, and she received a fellowship called Nuclear Education Fellowship Program in which she was working as research and teacher assistant. She also served as an intern at Oak Ridge National Laboratory, where she worked with Dr. Line Pouchard from the Computer Science and Math Division in high performance computing.

Her research interests are cyber security, computer forensics, and human computer interaction. In her free time, she enjoys exploring new places, watching anime and movies. Once she has completed the PhD her goals are to do a postdoctoral at Oak Ridge National Laboratory, and be part of the faculty in

a University in the United States.

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**Elisa Heymann** is an Associate Professor in the Computer Architecture and Operating Systems Department at the Autonomous University of Barcelona (UAB). She co-directs the MIST software vulnerability assessment project in collaboration with her colleagues at the University of Wisconsin.

She is also in charge of the Security group at the UAB, and participated in two major Grid European Projects: EGI-InSPIRE and European Middleware Initiative (EMI). Heymann's research interests include security and resource management for Grid and Cloud environments, and cyber-security in transportation. Currently she is at the University of Wisconsin working for the CTSC project. Her research is supported by the Spanish government, the European Commission, and NATO.

Heymann received her M.S. and Ph.D. degrees in Computer Science from the Autonomous University of Barcelona (Spain) in 1995 and 2001 respectively.

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**Tim Howard**, National Science Foundation, Division of Polar Programs - USAP Information Security Manager

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Craig Jackson is Senior Policy Analyst at Indiana University's Center for Applied Cybersecurity Research (CACR), where his research interests include risk management, information security program development and governance, legal and regulatory regimes impact on information security, and identity management. He leads engagements and authors guidance for the Center for Trustworthy Scientific Cyberinfrastructure (CTSC); he is policy lead of the security team for the DHS-funded Software Assurance Marketplace (SWAMP); and he is part of the DOE-funded XSIM (Extreme Scale Identity Management) project. He is a graduate of the IU Maurer School of Law (J.D.'10) and IU School of Education (M.S.'04). As a member of the Indiana bar, Mr. Jackson has represented government and corporate clients in constitutional and tort claims. His research, design, and project management background includes work at IU School of Education's Center for Research on Learning and Technology and Washington University in St. Louis School of Medicine. He is a member of Phi Beta Kappa, and was a Lien Honorary Scholar at Washington University in St. Louis.

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**Dr. Clifford A. Jacobs** worked for the National Science Foundation (NSF) for 30 years and for 25 years of that time provided oversight to the National Center for Atmospheric Research (NCAR) and its managing organization University Corporation for Atmospheric Research (UCAR). His oversight responsibilities cover a wide range of topics including world class science activities at NCAR, observational research and supporting infrastructure, modeling of climate and weather, use of real-time weather and environmental data for research and education (Unidata), and the development and use of cyberinfrastructure by the scientific community. He worked for the Division of Atmospheric and Geospace Sciences, Geoscience Directorate office, the Office of Polar Programs (now the Division of Polar Programs) and the Division of Advanced Cyberinfrastructure. His experiences also extend to collaborative activities among Federal agencies, participation in the working group to develop NSF clarification of its data policy, the development of requirement for a data management plan, help initiate the EarthCube program, and chaired an internal group of

cyberinfrastructure for NSF-sponsored large facilities. Currently, Dr. Jacobs is consulting through Clifford A. Jacobs Consulting, LLC.

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**Scott Koranda,** PhD, specializes on identity management architecture for research organizations. Since 2008, Scott Koranda has designed, deployed, and supported production SAML infrastructures including both the Shibboleth Identity Provider (IdP) and Service Provider (SP) software, for the research and education sectors.

A member of the Laser Interferometer Gravitational-Wave Observatory (LIGO) collaboration for over 10 years, Scott has served as the lead architect for the LIGO Identity and Access Management project since 2007. He was co-principal investigator on the NSF grant that funds COmanage development, and is co-principal investigator for the Center for Trustworthy Scientific Cyberinfrastructure (CTSC).

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James A. Marsteller, Jr. (CISSP) is the Chief Information Security Officer of the Pittsburgh Supercomputing Center, where he is responsible for ensuring the availability and integrity of the PSC's high performance computing assets. Jim has over 16 years experience in the information security field and more than 25 years of professional experience in the field of technology. Prior to working at PSC, he was a program manager for the Carnegie Mellon Research Institute that provided information security consulting services for government agencies and Fortune 500 companies. Jim leads the XSEDE Incident Response team and is XSEDE's security officer. He is a Co-PI for the Center for Trustworthy Scientific Cyberinfrastructure (CTSC). Jim chaired the program committee for the three most recent past summits, 2009, 2013, and 2014.

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**Charles McElroy** is a PhD student in Information Systems at Case Western Reserve University in Cleveland, OH. Currently, I am working on a research project related to the NSF Earth Cube initiative which supports the development of cyber-infrastructure for the Geo-sciences. My thesis work is focused on how scientists from disparate disciplines utilize cyber-infrastructure to coordinate their work when they may have little in common. Included in this study is an examination of how cyber-infrastructure can be designed to promote security protection while meeting the needs of the scientists who utilize it.

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**Barton Miller** is Professor of Computer Sciences at the University of Wisconsin. He is Chief Scientist for the DHS Software Assurance Marketplace research facility. He co-directs the MIST software vulnerability assessment project in collaboration with his colleagues at the Autonomous University of Barcelona. He also leads Paradyn Parallel Performance Tool project, which is investigating performance and instrumentation technologies for parallel and distributed applications and systems. His research interests include systems security, binary and malicious code analysis and instrumentation extreme scale systems, parallel and distributed program measurement and debugging, and mobile computing. Miller's research is supported by the U.S. Department of Homeland Security, U.S. Department of Energy, National Science Foundation, NATO, and various corporations.

In 1988, Miller founded the field of Fuzz random software testing, which is the foundation of many

security and software engineering disciplines. In 1992, Miller (working with his then-student, Prof. Jeffrey Hollingsworth, founded the field of dynamic binary code instrumentation and coined the term "dynamic instrumentation". Dynamic instrumentation forms the basis for his current efforts in malware analysis and instrumentation.

Miller was the chair of the IDA Center for Computing Sciences Program Review Committee, a member of the Los Alamos National Laboratory Computing, Communications and Networking Division Review Committee, and has been on the U.S. Secret Service

Electronic Crimes Task Force (Chicago Area), the Advisory Committee for Tuskegee University's High Performance Computing Program, and the Advisory Board for the International Summer Institute on Parallel Computer Architectures, Languages, and

Algorithms in Prague. Miller is an active participant in the European Union APART performance tools initiative.

Miller received his Ph.D. degree in Computer Science from the University of California, Berkeley in 1984. He is a Fellow of the ACM.

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William (Bill) Miller is the Science Advisor for the Division of Advanced Cyberinfrastructure (ACI) in the Computer Information Science and Engineering (CISE) Directorate at the National Science Foundation. ACI sponsors supercomputing resources, advancements in campus and international networking, and major software, data and cybersecurity platforms and tools, for the nation's research community. Bill's focus is on forging new integrative activities and partnerships on science-driven cyberinfrastructure within NSF and with external domestic and international entities. He has also been closely involved in policy, planning and oversight of NSF large facilities; and serves in leadership roles for NSF's participation in federal neuroscience efforts including the President's BRAIN Initiative. Bill earned a B.S. in Aerospace Engineering from the University of Michigan and worked in space systems engineering and project management at NASA and in Europe for a number of years. He later earned a Ph.D. in Neuroscience from U.C. Davis and held a faculty appointment in Radiology at UC San Francisco and research appointments at the Santa Lucia Institute in Rome. He also consulted on major projects for industry and academia.

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Dave Nalley, The Apache Foundation - Vice President, Infrastructure

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**Anita Nikolich** is Program Director for Cybersecurity in the Division of Advanced Cyberinfrastructure at the National Science Foundation (NSF). Prior to her work at the NSF she served as the Executive Director of Infrastructure at the University of Chicago. Past assignments include Director of Global Data Networking at Aon and Director of Security for Worldcom. She has explored how information technology and secure networking can best support the creation and sharing of scientific knowledge in virtual, mobile and physical contexts. She holds a Master of Science from The University of Pennsylvania and a Bachelor of Arts from the University of Chicago.

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**Amy Northcutt** was appointed Chief Information Officer of the National Science Foundation in January 2012. In this capacity, she is responsible for NSF's information technology investments,

governance, policy, and planning. Prior to this appointment, Ms. Northcutt served as Deputy General Counsel of the Foundation from 2001 - 2012. Ms. Northcutt holds a J.D., magna cum laude, from Boston College Law School, an A.M.R.S. from the University of Chicago; and a B.A. from Smith College.

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Susan Ramsey, University Corporation for Atmospheric Research - Security Engineer, CEH, CPT

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**Douglas Richardson** is the Executive Director of the Association of American Geographers (AAG), a scholarly association of 11,000 members dedicated to the advancement of geographic research, scholarship, and education. Richardson has led a successful organizational renewal at the AAG during the past twelve years. He has expanded its membership greatly, developed strategic new research and educational initiatives, and extended the AAG's international reach and programs substantially. He has built a strong financial foundation for the AAG and for geography's future.

Prior to joining the AAG, Dr. Richardson founded and was the president of GeoResearch, Inc., a private research firm specializing in the environmental and geographical sciences. Richardson and GeoResearch invented, developed, and patented the world's first real-time interactive GPS/GIS technologies, which have transformed the ways in which geographic information is now collected, mapped, integrated, and used within geography, as well as in society at large. He sold the company and its core patents in 1998.

His current research interests include GIScience dimensions of health, and real interactive time-space time integration in geography and GIScience. He has served on numerous private, public, and NGO boards and committees, including currently the National Geospatial Advisory Committee, chairing its Geospatial Privacy Subcommittee.

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Scott Sakai, San Diego Supercomputer Center at UCSC - Cyber Security Specialist

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**Phil Salkie** is a computer scientist who has been working as an industrial controls and automation engineer since 1984. His software and hardware designs serve sectors as diverse as food packaging, broadcast television, emergency power generation, water purification, sewage processing, surgical suture manufacture, biopharmaceuticals, specialty chemicals, laundry transport, semiconductor equipment manufacture, and nuclear power plant infrastructure. He is managing partner of Jeneriah, Industrial Automation.

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Anurag Shankar is a senior security analyst at Indiana University's Center for Applied Cybersecurity Research (CACR). His expertise includes regulatory compliance (HIPAA and FISMA) and cybersecurity risk management. He has helped numerous institutions tackle HIPAA compliance and been responsible for developing a NIST based risk management framework and using it to align IU's central research cyberinfrastructure with HIPAA. Prior to joining CACR, he spent nearly two decades at IU developing, delivering, and managing Unix support, massive data storage, and the national Teragrid project, and supporting the research mission of the IU School of Medicine. He played a key part in

building several of IU's large data storage environments, for supporting IU's Indiana Genomics Initiative and other life sciences efforts, and for building an information infrastructure and technology solutions for the Indiana Clinical and Translational Sciences Institute (CTSI). He is a computational astrophysicist by training (Ph.D. University of Illinois, '90).

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**Abe Singer** is the Chief Security Officer for the Laser Interferometer Gravitational Wave Observatory, operated by the California Institute of Technology. Previously he was the CSO of the San Diego Supercomputer Center at U.C. San Diego, and has had past lives as a private sector consultant, programmer, and system administrator.

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Adam Slagell is the Director of Cybersecurity and Chief Information Security Officer at the National Center for Supercomputing Applications (NCSA). In addition to providing security leadership for the NCSA and the NSF-funded XSEDE federation, he has been a cybersecurity researcher and PI for several years in the areas of security visualization, anonymization, intrusion detection, and more. Currently he is the liaison for the Bro Project at the Software Freedom Conservatory and co-PI for the NSF Bro Center, which brings its network security monitoring expertise and support to NSF cyberinfrastructure and projects.

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**Susan Sons** serves as a Senior Systems Analyst at Indiana University's Center for Applied Cybersecurity Research, having come from a background in abuse management, software development, and pentesting. In her free time, Susan volunteers as director of the Internet Civil Engineering Institute, a nonprofit dedicated to supporting and securing the common software infrastructure we all depend on, and as a search-and-rescue and disaster relief worker.

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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 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, and the IU Kelley School of Business.

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**Karen Stocks** received her PhD in Biological Oceanography from Rutgers University in 2000. She is the Director of the Geological Data Center (GDC) at Scripps Institution of Oceanography, where she is responsible for managing 50+ years of digital and analog data from Scripps research vessels. She also serves as the Director of Information Services for the Science Support Office of the Integrated Ocean Discovery Program. Her other current projects focus on the documentation, discovery, access, integration, and curation of oceanographic data. Her past experience includes information systems for biodiversity and biogeography, metagenomics, and ocean observing systems.

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**George Strawn** had a short industrial career (4 years with IBM), a long academic career (30 years at lowa State) and a pretty long government career (24 years at NSF). At lowa State he served terms as chair of the Computer Science department and director of the Computation Center. At NSF he invented the Internet (well, he was NSFnet program director and then division director of networking) and then served as CIO. He was most recently detailed to OSTP where he served as director of the NITRD NCO until his retirement in July. He has a PhD in mathematics from lowa State and is a fellow of AAAS.

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Amar Takhar has worked on both software and hardware testing for 18 years. He has designed several complete testing systems for Continuous Integration, operational and structured testing. Amar has a strong passion for design conformance and quality assurance. He has been both a longtime contributor to the NTP and Buildbot and RTEMS projects.

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Liviu Vâlsan serves as an IT security architect for CERN, the European Organization for Nuclear Research (<a href="http://cern.ch">http://cern.ch</a>). His interests include systems design for Computer Security Operations Centers at a large scale. Liviu holds a Bachelor degree in Computer Science from Politehnica University of Bucharest and a Masters degree in IT Project Management from the Bucharest Academy of Economic Studies. He started working at CERN in 2008 as a Software Engineer and System Administrator with the ATLAS experiment at the Large Hadron Collider (LHC). Liviu joined CERN openlab in May 2012 as a staff Computing Engineer, taking an active role in the research and development efforts inside the Platform Competence Centre (PCC) while also managing the integration of (predominantly prototype) hardware and software inside the openlab environment. Since 2013 he is part of the CERN IT Computing Facility group responsible for the management and operation of the Computer Centre and associated Computing Facilities. He has ever since been involved in the procurement of thousands of servers and dozens of petabytes of disk storage yearly for the Worldwide LHC Computing Grid Tier-0 centre at CERN as well as for the many services run by other groups in the CERN IT department.

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**Kent Wada** is UCLA chief privacy officer and director, strategic IT policy for the University of California, Los Angeles (UCLA).

<u>Designated as campus's first chief privacy officer</u> in 2012, Kent addresses foundational privacy issues that have broad impact on the campus community and the University mission through his role on the <u>executive committee</u> of the <u>UCLA Board on Privacy and Data Protection</u>. He collaborates closely with campus counsel, the chief information security officer, and many others, including the offices that have compliance authority for protection of personal information (chief compliance officer of UCLA Health, registrar, IRB, ...), to have UCLA be a good steward of this data.

In his role as director, strategic IT policy for the campus, Kent works broadly with the campus, UC system, and subject matter experts to help shape the institutional agenda for technology policy issues of strategic concern – whether privacy, copyright and illegal file sharing, IT accessibility, information security, or beyond. These issues become part of the campus IT planning and governance process though Kent's role as a member of the management team of the vice provost, Information

Technology and chief academic technology officer.

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Romain Wartel has been fighting botnets and bad actors for many years, while protecting the Worldwide LHC Computing Grid. This distributed cyber-infrastructure, supporting CERN's Large Hadron Collider, spans across hundreds of organizations worldwide. Romain specializes in large-scale security incidents, affecting multiple organizations and mission critical services. This implies focusing on malware, like rootkits, forensics, threat intelligence, and building international collaborations to prepare for and manage crisis. Beside operational security, Romain is involved in identity federation, and he also leads a CERN project, focusing on modern hardware adoption, called Techlab.

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Von Welch is the director of Indiana University's Center for Applied Cybersecurity Research (CACR) and PI for the Center for Trustworthy Scientific Cyberinfrastructure, a project dedicated to tackling the cybersecurity challenge for NSF science. His expertise lies in applied research and practice of cybersecurity for distributed systems. Other roles include serving as CSO of the Software Assurance Market Place, a DHS-funded facility to foster software assurance and software assurance research, PI on a Department of Energy funded grant focused on identity management for extreme-scale scientific collaboration, and serving as a advisor for research on the InCommon Steering Committee. Previously he has worked with a range of high-visibility projects to provide cybersecurity to the broader scientific and engineering community, including TeraGrid, Open Science Grid, Ocean Observatory Infrastructure, and GENI. His work in software and standards includes authoring two IETF RFCS and the contributing to the creation of the well-known CILogon and MyProxy projects.

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**Dr. Carol Wilkinson** is a visitor to NSF from the California Institute of Technology, providing support to the Large Facilities Office (LFO) on issues regarding the management of large scientific facilities. Her major roles while at NSF include being the LFO liaison to various facilities under construction, assisting with revisions of the Large Facilities Manual, and acting as the LFO liaison for Cyber Infrastructure. Her background includes research in experimental particle physics and experience in the operation and construction of large scientific facilities. She has formal training in facility and project management from the Project Management Institute (PMI) and other institutions. She earned certification in project management from the Stanford Advanced Project Management Institute.

Dr. Wilkinson gained familiarity with NSF construction projects funded through Major Research Equipment and Facility Construction (MREFC) accounts by serving for ten years as the project manager for the Advanced LIGO (Laser Interferometer Gravitational-Wave Observatory) development and construction. She also served on NSF construction project review panels for DUSEL, ALMA, OOI, NEON, and LSST. Previously, Dr. Wilkinson served as group leader and project manager for the construction and operation of two DOE funded accelerator facilities (DARHT) at Los Alamos National Laboratory before becoming project manager for the nuclear weapons testing program at DARHT before joining LIGO in 2003. She joined NSF on an Intergovernmental Personnel Act (IPA) assignment in November 2013.

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**Alexander Withers** entered the field of cyber security 15 years ago as an intern at Idaho National Laboratory. He has since obtained a masters in computer science from Stony Brook University and

has worked in both high performance computing for the physics community and cyber security at Brookhaven National Laboratory. He current works for the Cyber Security Directorate at the NCSA where he focuses on cyber security research and policy.