

# SPEAKER BIOS

## **Erik Puskar**

Mr. Erik Puskar oversees global standards information activities within Standards Services, Standards Coordination Office at NIST which includes the Inquiry Point & Standards Information Center, Standards-In-Trade program, standards training program and supports Federal agencies by monitoring developments in standards and conformity assessment internationally. Erik also leads impact analysis efforts of voluntary consensus standards for Standards Services, as well as NIST's efforts on education about standardization. He is vice-chair of the ANSI Committee on Education and represents NIST as a board member on the International Cooperation for Education About Standardization (ICES).

In addition to standards, he has experience in the fields of information technology, funding innovative high-risk technology and fiscal affairs/taxation. Erik was previously a program manager with the Advanced Technology Program of NIST and has held other positions with the U.S. Government, international development organizations, and consulting.

Erik holds a degree in Economics from Rutgers University and a Master's Degree in Public Management and Policy from Carnegie-Mellon University.

## **Willie E. May**

Dr. Willie E. May is the NIST Associate Director for Laboratory Programs. He is responsible for oversight and direction of NIST's six laboratory programs and also serves as the principal deputy to the NIST Director. The position of Associate Director for Laboratory Programs was created in October 2010 as part of the first major realignment of NIST programs in more than 20 years.

NIST's six laboratories include the Physical Measurement Laboratory, Material Measurement Laboratory, Engineering Laboratory, Information Technology Laboratory, the Center for Nanoscale Science and Technology, and the NIST Center for Neutron Research. The NIST Laboratories collaborate with U.S. industry and universities to conduct measurement, standards, and technology research that advances the nation's R&D infrastructure. The overarching goal of the NIST laboratory programs is to accelerate U.S. innovation, which is a major driver of economic growth and job creation.

Immediately prior to his current position, Dr. May served as Director of the [Material Measurement Laboratory](#), which serves as the Nation's reference laboratory for measurements in the chemical, biological, and materials sciences through activities ranging from fundamental research in the composition, structure, and properties of industrial, biological and environmental materials and processes, to the development and dissemination of certified reference materials,

critically evaluated data, and other measurement quality assurance programs. Dr. May's personal research was focused in the areas of trace organic chemical analysis and the determination of physico-chemical properties of organic compounds.

Dr. May has several leadership responsibilities in addition to those at NIST. Among those are his serving as Vice President of the 18-person International Committee on Weights and Measures (CIPM); his serving as President of CIPM's Consultative Committee on Metrology in Chemistry and Biology; and his serving on the Board of Advisors to Japan's National Institute of Advanced Industrial Science and Technology.

### **James Olthoff**

Dr. James Olthoff is the Deputy Director of the Physical Measurement Laboratory of the National Institute of Standards and Technology (NIST). As Deputy Director of PML, Jim is responsible for the realization of the fundamental units at NIST and for all related calibration services. Jim has worked at NIST since 1987 where he performed research related to electrical breakdown in gases of interest to the electric power and semiconductor industries, and performed calibrations of high voltage transformers and capacitors. In 2001 he became the Chief of the Quantum Electrical Metrology Division, which was the organization that maintains the fundamental electrical standards for the United States, until he was appointed Deputy Director of the Electronics and Electrical Engineering Laboratory in 2007.

Jim received his Ph.D. in physics from the University of Maryland in 1985 in the area of atomic and molecular physics. He then held a two-year appointment at The Johns Hopkins School of Medicine before being hired by NIST. Jim has published over 120 publications and has co-authored/edited four books. His international metrology responsibilities include serving as the Chair of the Sistema Interamericano de Metrologia (SIM) Quality System Task Force (QSTF), representing SIM on the Joint Committee of the Regional Metrology Organizations (JCRB), serving as the Chair of the Conference on Precision Electromagnetic Measurements, and representing NIST on the Consultative Committee on Electricity and Magnetism. Jim also serves as the NIST representative to the Boards of the NCSL International and iNEMI.

### **Robert L. Watters, Jr.**

Dr. Robert L. Watters, Jr. is the Associate Director for Measurement Services in the Material Measurement Laboratory (MML) at the National Institute of Standards and Technology (NIST). Dr. Watters is also the Director of the Office of Reference Materials (ORM) at the National Institute of Standards and Technology (NIST), a position he has held since 2004. Dr. Watters has over 36 years of experience at NIST in the development of Standard Reference Materials (SRMs) and international metrology comparisons.

The Office of Reference Materials is responsible for all business support and information technology resources for NIST's Standard Reference Material Program. ORM also provides IT support for NIST calibration services. These programs represent over twenty million dollars in

the transfer of NIST measurement services to the public and government agencies around the world.

Dr. Watters received his B.S. in Chemistry from the University of Notre Dame in 1970 and his Ph.D. in Analytical Chemistry from the University of Wisconsin in 1976. He joined the National Bureau of Standards in 1976, and became Group Leader for Atomic and Molecular Spectrometry in 1987. He has participated in the analysis and certification of over 150 Standard Reference Materials. He was a member of the NIST *Ad Hoc* Committee on Uncertainty Statements, which developed the NIST policy on implementing the ISO Guide to Uncertainty in Measurement.

Dr. Watters was a founding member of the *Comité International des Poids et Mesures* (CIPM) Consultative Committee on Amount of Substance. He led a team that developed an international database system for comparison measurements performed by the world's National Metrology Institutes. He is also responsible for maintaining the NIST Traceability web site, wherein the NIST policy on traceability is articulated, and through which many of NIST's customers obtain answers to their traceability questions.

### **Carol Hockert**

Ms. Carol Hockert is the Chief of the Office of Weights and Measures at NIST, which provides technical expertise, training, international perspective and representation, and oversight to the U.S. legal metrology infrastructure. As part of her responsibilities, she serves as the Executive Secretary for the National Conference on Weights and Measures.

Prior to her appointment at NIST, she was the Director of the Weights and Measures Division for the State of Minnesota. Ms. Hockert began her career as a metrologist in the Minnesota state metrology laboratory, where she gained experience in mechanical, dimensional and thermodynamic calibrations, as well as in technical writing. She has done technical training on several measurement topics. In addition, she spent six years as both a lead and technical assessor for the National Voluntary Laboratory Accreditation Program (NVLAP).

Ms. Hockert is currently the Technical Program chair for the NCSL International (NCSLI), a professional association made up of people and organizations with an interest in measurement science. She is also a Past President. NCSLI promotes competitiveness and success of its members by improving the quality of products and services through excellence in calibration, testing, and metrology education and training.

Ms. Hockert received her Bachelor of Chemical Engineering degree from the University of Minnesota in 1983.

## **Michael D. Hogan**

Mr. Michael D. Hogan has worked as an electronics engineer at the National Institute of Standards and Technology (NIST) since 1974. As the Standards Liaison for the NIST Information Technology Laboratory, he represents NIST at national and international fora that advance measurement science, testing, and standards in support of more interoperable, usable, scalable, reliable, and secure Information and Communications Technologies (ICT). Since September 2003, Mr. Hogan has served as the Convener of the international standards group: ISO/IEC JTC 1/SC 37 Working Group 4 - Biometric Functional Architecture and Related Profiles. From February 2007 to November 2012, Mr. Hogan served as the Co-Chair and then Chair of the Standards and Conformity Assessment Working Group of the NISTC Subcommittee on Biometrics and Identity Management. Mr. Hogan is also serving as the Co-Convener of the public NIST Cloud Computing Standards Roadmap Working Group, which was established in January 2011.

Mr. Hogan graduated with honors (member of Eta Kappa Nu) with a B.S. degree in electrical engineering from the University of Maryland in 1973. In 1967, he was a Distinguished Graduate of the Infantry Officer Candidate School at Fort Benning, Georgia. During 1968 and 1969, Lieutenant Hogan served in Vietnam as an executive officer, an operations officer, and a platoon leader for U.S. Army units attached to the 199th Light Infantry Brigade and to the 1st Infantry Division.

## **Sally Bruce**

Ms. Sally Bruce is currently the Quality Manager for NIST Measurement Services: Calibrations and Standard Reference Materials. Ms. Bruce has developed, documented, implemented, and managed quality systems for specific NIST measurement service areas since 1992. She previously served as the Chief of the National Voluntary Laboratory Accreditation Program (NVLAP) from 2006-2011.

Ms. Bruce's career at NIST, formerly NBS, has spanned 30 years and her responsibilities and experience is vast and includes generic technical and more specific engineering in the fields of electrical and mechanical, electromagnetics, vacuum technology, particle physics, thermodynamics and heats of combustion, a variety of research and development efforts, and calibrations in the discipline of optical radiation. Her experiences as a physical scientist have included responsibilities for measurement science, quality management, technical editing and writing for various publications and media, teaching and presenting information and research, project management for a variety of laboratory activities and infrastructure including information technology and website management.

She has actively participated as a member of the task force committees at NIST for the development of the Quality Manual for Measurement Services (NIST QM-I). She organizes, plans, coordinates, and participates in the on-going assessments of the quality systems for the

NIST divisions that provide measurement services. She is responsible for assuring the overall implementation of the NIST Quality System and its conformance to ISO standards.

Ms. Bruce joined the Calibration Program staff of the National Voluntary Laboratory Accreditation Program in the fall of 2003. As a Program Manager she was involved with many of the aspects of the laboratory accreditation process.

Ms. Bruce is the official NIST representative to the System Interamericana de Metrologia (SIM-Spanish for Inter-American Metrology System) Quality System Task Force (QSTF). SIM is the regional metrology organization for the Americas. Ms. Bruce is also active in the International Laboratory Accreditation Cooperation (ILAC) and in the regional cooperatives as well, and is a member of the ILAC committee on accreditation issues specific to calibrations. She is a qualified lead assessor for the ISO 9000 series of quality management systems and is a peer evaluator for accreditation bodies with emphasis in calibration accreditations throughout Asia Pacific (APLAC) and a lead peer evaluator the Americas (IAAC) using the ISO/IEC 17011, the standard used for conformity assessment bodies.

Her formal education began with an Associate in Arts Degree in Electromechanical Technology from Montgomery College in Maryland. She has since earned both Bachelor of Science and Master of Science degrees in Technology Management from the University of Maryland University College. She is also a certified professional in IT Management and Project Management.

### **David Wollman**

Dr. David Wollman is one of NIST's smart grid team leads, managing NIST's smart grid standards and research efforts and overseeing Smart Grid Interoperability Panel activities. Before joining the Smart Grid and Cyber-physical Systems Program in the NIST Engineering Laboratory, he managed efforts within the Physical Measurement Laboratory to maintain and advance the Nation's electrical standards and metrology supporting the electric power industry. He has worked closely with a variety of standards development organizations, and he is the NIST official representative on the Board of Directors at the North American Energy Standards Board (NAESB), an ANSI-accredited SDO whose standards are often referenced by the Federal Energy Regulatory Commission (FERC). In addition, he has served in several other positions at NIST, including Scientific Advisor in the Electronics and Electrical Engineering Laboratory, Program Analyst in the NIST Director's Program Office, and bench-level scientist in Boulder, Colorado developing advanced high-resolution x-ray detectors.

Before joining NIST, Dr. Wollman received his Ph.D. from the University of Illinois at Urbana-Champaign in the areas of superconducting electronics and device micro/nanofabrication. He has given numerous invited talks at international conferences, and holds three U.S. patents. He has received many awards, including the U.S. Department of Commerce Gold Medal and the NIST Applied Research Award.

## **Bert Coursey**

Dr. Bert Coursey is a Guest Researcher in the NIST Standards Services Group. He is also the Chairman of the ISO Strategic Advisory Group on Security. He joined the National Institute of Standards and Technology (NIST) (formerly the National Bureau of Standards) in 1972 and for the following 15 years worked on radioactivity standards for environmental radioactivity and nuclear medicine. More recently he has held management positions in radiation dosimetry and served as Chief of the Ionizing Radiation Division in the NIST Physics Laboratory.

From 2003 to 2011, Dr. Coursey was on assignment to the U.S. Department of Homeland Security (DHS) as Chief of the Office of Standards in the Science & Technology Directorate. In 2004 he was appointed the Standards Executive for the Department. His office was responsible for the design and implementation of a national program for standards for homeland security. A partial listing of the DHS standards projects includes performance standards and testing and evaluation protocols for chemical, biological and radiological/nuclear detectors for emergency responders, explosives detection equipment, standards for preparedness, critical infrastructure protection, emergency management and resilience, and performance standards for information technology (IT) to include credentialing, biometrics and cyber security.

Dr. Coursey is a recipient of the Bronze (1987), Silver (1997) and Gold (2002) Medals of the Department of Commerce. He is also a recipient of the Allen V. Astin Award and the Edward Bennet Rosa Award of the NIST. He is a past president of the International Committee for Radionuclide Metrology, and a Fellow of the American Association of Physicists in Medicine and the Standards Engineering Society. Dr. Coursey has over ninety publications on radioactivity standards and applied radiation dosimetry and has served for 35 years as editor of the journal *Applied Radiation and Isotopes*. Dr. Coursey received his B.S. degree in Chemistry in 1965, and the Ph.D. in Physical Chemistry in 1970, from the University of Georgia.

## **Cameron Miller**

Dr. Cameron Miller is a research chemist with the National Institute of Standards and Technology. He joined NIST in 1996, to work in the fields of Photometry and Retroreflection and in 2003 was appointed the Photometry Project Leader. His research areas include all aspects of Photometry, Retroreflection, Measurement Uncertainty and Vision Science applied to lighting.

Cameron is active in standards organization and committees, such as IES – Testing Procedure Committee (SSL Committee Chairman), CIE (USA voting member for Div 2), CIEUSA (Technical Vice President), ANSI/ISO TAG (Vice Chairman) and ASTM, and professional societies such as ISCC, NEMA, and CORM.

He is also involved in the National Voluntary Laboratory Accreditation Program as an assessor for the Energy Efficient Lighting Program and the Calibration Program.

Cameron Miller obtained his PhD in Physical Chemistry from Cornell University (1994).

## **Michael Garris**

Mr. Michael D. Garris is a computer scientist at NIST where he has worked for the last 26 years. He is manager of ITL's Image Group, renowned for its Research, Development, Test, and Evaluation programs in fingerprint, face, and iris biometrics. He has been working in the area of biometrics since 1998 and prior to that invested ten years working in the area of hand print recognition.

Mr. Garris received a M.S. in Computer Science with a focus on artificial intelligence and image processing from Johns Hopkins University in 1991.

## **Chiara (Clarissa) F. Ferraris**

Dr. Chiara (Clarissa) F. Ferraris is a physicist in the Inorganic Materials Group of the Materials and Structural Systems Division (MSSD) of the Engineering Laboratory (EL) at the National Institute of Standards and Technology (NIST). Dr. Ferraris joined the Inorganic Building Materials Group of the Materials and Construction Research Division in January 1994. She is carrying out studies on rheology of concrete, sorption measurements (Developed the ASTM standard test C 1585), and sulfate attack in concrete (proposed test under consideration by ASTM). In the field of cement particles size distribution measurements, she took the lead to provide the cement industry with a reference material for particle size distribution, SRM 114q and 46h and proposed a standard test method to AASHTO. Dr. Ferraris has published more than 100 papers.

The main thrust of her work is on the rheological properties of fresh concrete. She was instrumental as chair of ASTM C01.22, workability, to develop two new standard tests and she is currently developing a granular reference material for mortar and concrete rheometers, based on the newly developed SRM 2492 for paste.

From May 1987 to December 1993, prior to joining NIST, Dr. Ferraris was a Research Physicist at the Washington Research Center of W.R. Grace & Co., in Columbia, Maryland. From March 1980 to April 1987, Dr. Ferraris worked at the Swiss Federal Institute of Technology in Lausanne, Switzerland with Professor Wittmann and carried out studies on shrinkage of cement and concrete. This research led to a Ph.D. thesis completed in 1986.

Dr. Ferraris is a Fellow of the American Concrete Institute (ACI) since 2003 (member since 1991). Also, she is involved in ASTM as the sub-chair of the ASTM committee Workability (C01.22) and the secretary of the ASTM committee on Sulfate Resistance (C01.29).

Awards: In 2008, Dr. Ferraris received the Delmar L. Bloem Distinguished Service Award" from ACI for outstanding leadership in ACI 236 and 238. She is the recipient of the 2001 BFRL Communication Award for her report on the "Comparison of Concrete Rheometers International

tests of LCPC (Nantes, France) in October 2000." She also received in 2002 and 2008 "NIST Equal Employment Opportunity/Diversity Award" for consistently encouraging careers in science and engineering for women.

### **Michael Unterweger**

Dr. Michael Unterweger is the leader of the Radioactivity Group in the Radiation and Biomolecular Physics Division of the National Institute of Standards and Technology's (NIST) Physical Measurement Laboratory, currently working on radionuclide metrology, internal gas counting, nuclear data parameters, and homeland security instrumentation testing.

He has had extensive experience in the development of national and international standards through ANSI and IEC. He is acting as coordinator for the development of ANSI standards for radiation detection instrumentation for homeland security. He is a member of ASTM, ANSI, IEEE, IEC, and NCRP. His research includes radioactivity, internal gas counting, ionization chambers, microcomputers, micro-calorimetry, and alpha-particle counting.

Before coming to NIST, he worked for five years on a Graduate Research Fellowship at Saint Louis University. In 2003, Unterweger received a Silver Medal from the Department of Commerce for his work on standards for the Department of Homeland Security. He has co-authored 43 publications.

Michael Unterweger received a Ph.D. in nuclear physics from Saint Louis University and a B.S. in nuclear physics from the University of Buffalo.

### **John R. Sieber**

Dr. John Sieber is an analytical chemist in the Chemical Sciences Division of the NIST Material Measurement Laboratory. Dr. Sieber works with the alloys and cement industries to develop standards, practices and guides for analyses of metals, ores and cement. Dr. Sieber is Technical Contact for approximately 320 NIST Standard Reference Materials for these industries and more. John is also active in standards and reference materials development for declarable substances in materials, including working with the U.S. Consumer Product Safety Commission on analyses of children's products. Dr. Sieber specializes in X-ray fluorescence spectrometry, and has contributed elemental analyses for hundreds of NIST Standard Reference Materials, and he is developing a research program in quantitative speciation using X-ray absorption spectroscopy.

Dr. Sieber received his Ph.D. from the University of Maryland in the area of quantitative surface analysis while working at NIST. John spent nine years in the petroleum industry supporting product development research and manufacturing of fuels and lubricants. He returned to NIST in 1997 to run the XRF laboratory of the Inorganic Chemical Metrology Group. He has given numerous invited talks at international conferences, and consults with commercial reference

producers to leverage NIST SRMs. John has received awards from standards committees, including the ASTM International B. F. Scribner Award, and at NIST, including the U.S. Department of Commerce Bronze Medal.

### **Gordon Gillerman**

Mr. Gordon Gillerman, Chief of Standards Services at the National Institute of Standards and Technology (NIST), coordinates and advises federal agencies, US industry and other stakeholders on standards and conformity assessment policy. Standards Services operates the U.S. Inquiry Point for the World Trade Organization's Technical Barriers to Trade Agreement and is a key information source for US industry on standards related market access issues.

Gordon has extensive experience coordinating standards policy and development across a wide range of critical issues in the U.S. including cloud computing, health IT, homeland security, safety, and health and protection of the environment. Gordon is the Public Sector Co-Chair of the American National Standards Institute's (ANSI) Homeland Security Standards Panel, an expert on conformity assessment systems and their nexus with regulatory and trade issues and a sought-after lecturer on standards, conformity assessment and regulation.

Prior experience includes leading government affairs for the largest U.S. product safety certification and standard development organization, Underwriters Laboratories (UL) in Washington, DC, and Staff Engineer for the medical device and information technology sectors at UL's Northbrook, IL headquarters.

Gordon has worked collaboratively within the standards community to enhance health, safety, the environment and security throughout his career. In 2008 he received an Environmental Protection Agency Gold Medal, a Department of Commerce Bronze Medal and the ANSI Meritorious Service Award. In 2010 Gordon received a Department of Commerce Gold Medal for leadership in enhancing the performance standards and certification program for law enforcement body armor and EPA's Award for Outstanding Leadership in Collaborative Problem-Solving for his work in guiding the development of a Green Clean-Up standard. In 2012 Gordon received the ANSI Gerald H. Ritterbusch Conformity Assessment Medal.

Gordon received a Bachelor's Degree in Electrical Engineering Technology from Bradley University in Peoria, IL.