NIST - ASM International
Virtual Additive Manufacturing Data Management Workshop
27-28 October 2020 Day 1 Speaker Bios

Keynote Speaker

Isaac Peral Distinguished Researcher, Center for Plant Biotechnology and Genomics, Technical University of Madrid

Dr. Mark D Wilkinson
mark.wilkinson@upm.es

Dr. Mark D Wilkinson is the Fundacion BBVA Chair in Biotechnology, Isaac Peral Distinguished Researcher, Center for Plant Biotechnology and Genomics, Technical University of Madrid. For the past 18 years, his laboratory has focused on designing biomedical data/tool representation, discovery, and automated reuse infrastructures - what would now be called "FAIR". Dr. Wilkinson is the lead author of the primary FAIR Data Principles paper, and lead author on the first paper describing a complete implementation of those principles over legacy data. He is a founding member of the FAIR Metrics working group, tasked with defining the precise, measurable behaviors that FAIR resources should exhibit. Dr. Wilkinson's laboratory's flagship technologies are Semantic Automated Discovery and Integration (SADI) and Semantic Health and Research Environment (SHARE). SADI enables FAIR discoverability for analytical algorithms in biomedicine, where the algorithms natively consume FAIR data; as such, SADI design practices are perfectly suited for deployment on the emergent Web of FAIR Data and Services. SHARE supports automated query resolution over globally distributed resources through intelligent matchmaking between data and required services, and automated workflow orchestration.

Keynote Speaker

FAIR Data Stewardship for FAIR Digital Twins

Dr. Erik Schultes
andrea.wesdorp@go-fair.org

Dr. Erik Schultes is the International Science Coordinator for the GO-FAIR International Support and Coordination Office in Leiden, The Netherlands. Prior to joining GOFAIR he was a research scientist at the Leiden University Medical Center. He co-founded and was the Chief Science Officer of Sequenomics, LLC. Erik earned his PhD in Evolutionary Biology at UCLA in 1997. Included among his recent publications are (1) "The FAIR Principles: First Generation Implementation Choices and Challenges," Data Intelligence, 2(1-2), 1-9, 2020, (2) "FAIR principles: interpretations and implementation considerations," Data Intelligence, 2(1-2), 10-29, 2020, and (3) "FAIR convergence matrix: Optimizing the reuse of existing FAIR-related resources," Data Intelligence, 2(1-2), 158-170, 2020

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Additive Manufacturing Data Management in the DOD.

Ms. Kelly Vicsonti, P.E., PMP
kelly.visconti@pm2strategies.com

Keynote Speaker

Kelly Visconti, P.E. is a chemical engineer and Senior Program Manager with PM2 Strategies currently supporting the U.S. Department of Defense Manufacturing Technologies Office. She facilitates the Joint Additive Manufacturing Working Group, a cross DoD collaboration focused on addressing common barriers to the use of additive manufacturing in support of our nation's defense. Prior to this she served for six years in the Advanced Manufacturing Office at the U.S. Department of Energy as a Technology Manager. She was the program manager for two multi-year, public private partnerships focused on research and development to save energy and increase U.S. manufacturing competitiveness. Ms. Visconti started her professional career with ten years of experiences in industry as an engineer and manager at The Linde Group, the world's largest industrial gas company.

Ms. Visconti is a 2017 recipient of the George Washington University's Arthur S. Flemming Award for Leadership and Management in recognition of her leadership in the effort to drive the investment of $900 million into public-private partnerships under the Manufacturing USA initiative. She was selected and served as an American Association for the Advancement of Science (AAAS) Science and Technology Policy Fellow (2011-2012). She is a Project Management Professional (2017) and a licensed Professional Engineer (2006). Ms. Visconti received her M.S. in Civil and Environmental Engineering from Rutgers University (2005) and B.S. in Chemical Engineering from The Johns Hopkins University (2001).

Biomedical data management at scale: the rise of data commons and the pursuit of FAIRness

Mr. Matthew Trunnel
mattertrunnell@gmail.com

Keynote Speaker

Mr. Trunnell, a self-described data commoner, helps organizations enhance the impact of their research-data assets through engineering, stewardship, and data-centered collaboration. He currently serves as the acting Executive Director of the Pandemic Response Commons, a not-for-profit consortium advancing regional data platforms in support of COVID-19 research, including the recently launched Chicagoland COVID-19 Commons.

Prior to his current consulting activities, Mr. Trunnell was vice president and chief information officer at the Fred Hutchinson Cancer Research Center, where he established and led a new organization, the Hutch Data Commonwealth, a team of software and data engineers developing data-intensive research capabilities and infrastructure and advancing data science through community development, training, and regional partnering. Before joining the Hutch Mr. Trunnell served as CIO and director of research computing at the Broad Institute of MIT and Harvard where he helped launch the Institute's data science and data engineering organization.

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Additive Manufacturing Data Management in the DOD

Mr. Matthew Jacobsen
matthew.jacobsen.1@us.af.mil

Mr. Jacobsen is a software engineering technical lead in the Materials and Manufacturing Directorate of the Air Force Research Laboratory, where he manages efforts in data and software engineering, data governance, and process optimization. Mr. Jacobsen's current focus is concerned with the modernization of Air Force laboratory cyberinfrastructure and data capabilities, in order to address emerging issues in Big Data Analytics, Cloud Services, and Internet of Things (IoT) technology.

Mr. Jacobsen is leading an internationally recognized software development program within the area of Integrated Computation Materials Science and Engineering (ICMSE). This Air Force-trademarked cyberinfrastructure, called HyperThought™, employs state-of the-art technologies to provide a complete suite of data management and machine integration capabilities to research and manufacturing organizations around the United States.

NIST Information Technology Laboratory (ITL)

Mr. Wo Chang

wchang@nist.gov

Mr. Chang is Digital Data Advisor for the NIST Information Technology Laboratory (ITL). His responsibilities include, but are not limited to, promoting a vital and growing Big Data community at NIST with external stakeholders in commercial, academic, and government sectors. Mr. Chang currently chairs the ISO/IEC JTC 1/SC 42(Artificial Intelligence)/WG 2 Working Group on Data, IEEE Big Data Governance and Metadata Management, NIST Big Data Public Working Group, and NIST representative to the ISO/IEC AI standards development. Prior to joining ITL Office, Mr. Chang was manager of the Digital Media Group in ITL and his duties included overseeing several key projects in the areas of digital data, long-term preservation and management of EHRs, motion image quality, and multimedia standards.

In the past, Mr. Chang was the Deputy Chair for the US National Body for MPEG (INCITS L3.1) and chaired several other key projects for MPEG and JPEG. Mr. Chang was one of the original members of the W3C's SMIL WG and developed one of the SMIL reference software. Furthermore, Mr. Chang also participated in the Research Data Alliance for data infrastructure, HL7 and ISO/IEC TC215 for health informatics, and IETF for protocols development of real time streaming such as SIP, RTP/RTPC, RTSP, and RSVP. Mr. Chang's research interests include, Open Data, FAIR Data, Big Data, AI Data, data quality, data analytics, machine learning, deep learning, high performance and cloud computing, content metadata description, digital file formats, multimedia synchronization, digital data preservation, and Internet protocols.