Modeling and Visualizing Science and Technology Developments

December 4-5, 2017; Irvine, CA
Registration will open August 2017

Session I - Rankings and the Efficiency of Institutions

Moderator: H. Eugene Stanley, Boston University

Albert-László Barabási, Center of Complex Networks Research, Northeastern University and Division of Network Medicine, Harvard University, Science of Science: From Credit Sharing to Careers in Science

Lada Adamic, Facebook Inc., How Cascades Grow

Marta González, Massachusetts Institute of Technology, Urban Computing: Mobility and Migration

Kaye Husbands Fealing, Georgia Institute of Technology, Assessing the Return on Investment from Federal Funding of Food Safety Research: A new Bibliometric Approach

Brian Uzzi, Northwestern University, Bloodlines in Science: The Link between an Academic Advisor’s Scholar Pursuits and their Students’ Pursuits and Performance

John V. Lombardi, The Center for Measuring University Performance, America’s Research Universities: Is the Enterprise Model Sustainable?

Session II - Higher Education and the S&T Job Market

Moderator: Katy Börner, Indiana University, Modelling and Visualizing the Interplay of (Higher) Education, Jobs, and S&T Progress


Michael Richey, The Boeing Company, Learning in Professional Networks: Effect of Social Capital on Knowledge Artefact Creation

William Rouse, Stevens Institute of Technology, Computational Modeling of Research Universities: Explorations of Alternative Futures, Possible Bubbles & Strategic Scenarios

Stasa Milojevic, Indiana University, Dynamics of Academic Workforce: Production and Attrition of Researchers and Outcomes for Science as a Whole

Rob Rubin, Executive Director, Internet of Learning Consortium; Director Learning Sciences, Microsoft’s Learning Experience Team (LeX)

David Krakauer, Santa Fe Institute, Modeling the Evolution of Institutional Change

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Session III - Innovation Diffusion and Technology Adoption

Moderator: William Rouse, Stevens Institute of Technology

Donna Cox, University of Illinois, *Visualization of Big Data Computational Models: Connecting People to Science*

Jeff Alstott, Massachusetts Institute of Technology, *Modeling New Technological Capabilities with Large-Scale Data*

Ben Shneiderman, University of Maryland, *Human-Centered Models of Twin-Win Research Successes*

Rahul C. Basole, Georgia Institute of Technology, *From What-Is to What-If: Visualizing the Complex Structures of Converging Business Ecosystems*

Scott Stern, Massachusetts Institute of Technology, *Innovation-Driven Entrepreneurial Ecosystems: A New Agenda for Measurement, Policy and Action*

Cesar Hidalgo, Massachusetts Institute of Technology, *Collective Learning in Society and the Economy*

Session IV - Modeling Needs, Infrastructures, Standards

Moderator: Paul Trunfio, Boston University

Sallie Keller, Professor of Statistics and Director, Social and Decision Analytics Laboratory, Biocomplexity Institute of Virginia Tech, *New Opportunities to Observe and Measure Innovation*

Andrew L. Russell, The State University of New York Polytechnic Institute, *Visions of the Future & Models from the Past*

Guru Madhavan, National Academy of Sciences, *Systems Architecture to Support Planning and Preparedness in Public Health*

Azer Bestavros, Boston University, *Sharing Knowledge without Sharing Data: On the False Choice Between the Privacy and Utility of Information*

Jason Owen-Smith, Institute for Research on Innovation & Science, University of Michigan, *Measuring & Visualizing the Collaborative Infrastructure of University Science*

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