

*The National Academies of*  
**SCIENCES • ENGINEERING • MEDICINE**

**Opportunities for Accelerating Scientific Discovery: Realizing the  
Potential of Advanced and Automated Workflows**

**AGENDA**

March 16-17, 2020

**March 16, 2020 (Monday)**

**8:30 am EDT / 1:30 pm CET / 5:30 am PDT**

**PART ONE: USE CASES**

Welcome, Overview, and Goals of the Symposium -- Daniel Atkins, University of Michigan

8:45 am EDT / 1:45 pm CET / 5:45 am PDT

Sponsor Perspective -- Stuart Feldman, Schmidt Futures

9:00 am EDT / 2:00 pm CET / 6:00 am PDT

Accelerating Discovery: Case Studies, Requirements, and Progress, Part One

Session Leaders: Ilkay Altintas, San Diego Supercomputer Center, and Tapio Schneider, California Institute of Technology

Panelists: Timothy Cernak, University of Michigan

Kyle Cranmer, New York University

Alex Szalay, Johns Hopkins University

10:00 am EDT / 3:00 pm CET / 7:00 am PDT

BREAK

10:15 am / 3:15 pm CET / 7:15 am PDT

Accelerating Discovery: Case Studies, Requirements, and Progress, Part Two

Panelists: Gregory Crane, Tufts University

Tyrel McQueen, Johns Hopkins University

Robert Murphy, Carnegie Mellon University

**11:15 am / 4:15 pm CET / 8:15 am PDT**

**PART TWO: ENABLING TECHNOLOGIES**

Accelerating Discovery: Mathematical and Algorithmic Issues

Session Leaders: Bradley Malin, Vanderbilt University, Alfred Hero, University of Michigan, Tapio Schneider, California Institute of Technology

Panelists: Rene Vidal, Johns Hopkins University  
Rebecca Nugent, Carnegie Mellon University  
Victoria Stodden, University of Illinois Urbana-Champaign

12:15 pm / 5:15 pm CET / 9:15 am PDT      BREAK

12:30 pm / 5:30 pm CET / 9:30 am PDT

Perspective from the Office of Science and Technology Policy

Kelvin Droegemeier, Director, Office of Science and Technology Policy

12:40 pm / 5:40 pm CET / 9:40 am PDT

Accelerating Discovery: Status and Trajectory of Supporting Tools and Systems

Session Leaders: Mercè Crosas, Harvard University, and Shreyas Cholia, Lawrence Berkeley National Laboratory

Panelists: Carole Goble, University of Manchester  
Ian Foster, Argonne National Laboratory  
Brian Granger, Project Jupyter and Amazon Web Services  
Julia Lane, New York University  
Peter Beckman, Argonne National Laboratory  
Geoffrey Fox, Indiana University

2:40 pm EDT / 7:30 pm CET / 11:30 am PDT      OPEN DISCUSSION (Break as needed)

**3:30 pm EDT / 8:30 pm CET / 12:30 pm PDT      ADJOURN DAY ONE**

## **March 17, 2020 (Tuesday)**

**8:30 am EDT / 1:30 pm CET / 5:30 am PDT      PART THREE: HUMAN AND POLICY ISSUES**

Welcome and Overview of Day Two – Daniel Atkins

8:45 am EDT / 1:45 pm CET / 5:45 am PDT

Accelerating Discovery: Standards, Governance, and Social Context

Session Leaders: Lara Mangravite, Sage Bionetworks, and Rebecca Lawrence, F1000 Research

Panelists: Raja Mazumder, George Washington University  
Beth Plale, National Science Foundation  
Timothy Gardner, Riffyn, Inc.  
Michael Crusoe, Common Workflow Language

9:45 am EDT / 2:45 pm CET / 6:45 am PDT      BREAK

10:00 am EDT / 3:00 pm CET / 7:00 am PDT

Accelerating Discovery: Developing Supportive Policies, Communities, and Sustainable Funding

Session Leaders: Alfred Hero, University of Michigan

Panelists: Jean-Claude Burgelman, European Commission  
Dmitri Kuznezov, U.S. Department of Energy  
Adam Russell, Defense Advanced Research Projects Agency  
Daniel Weitzner, Massachusetts Institute of Technology

**11:15 am EDT / 4:15 pm CET / 8:15 am PDT      PART FOUR: SYNTHESIS AND FUTURE PRIORITIES**

Synthesis of What We Have Heard

Session Leaders: Rebecca Lawrence, F1000 Research and Tapio Schneider, California Institute of Technology

Panelists: Carol Goble, The University of Manchester  
Ian Foster, Argonne National Laboratory  
Alex Szalay, Johns Hopkins University  
Timothy Gardner, Ryffin, Inc.

**1:00 pm EDT / 6:00 pm CET / 10:00 am PDT      ADJOURN PUBLIC WORKSHOP**