

# 2017 Annual Program Review Agenda

Monday, July 24 – Thursday, July 27  
Crystal Gateway Marriott Hotel, Arlington, VA

Updated Tuesday, August 29, 2017

## Monday, July 24

10:30am – 6:00pm	<b>Registration</b> — <i>Grand Registration Desk</i>
11:00am – 12:00pm	<b>New Fellow Orientation</b> — <i>Salons F &amp; G</i>
12:00 – 1:00pm	<b>New Fellow Luncheon</b> — <i>Salons F &amp; G</i>
1:00 – 1:30pm	<b>Photo Session: Incoming Fellows (Portraits &amp; Group Photo)</b> — <i>Lee</i>
1:00 – 3:00pm	<b>DOE Laboratory Poster Session Set Up</b> — <i>Salons H, J &amp; K</i>
3:00 – 4:00pm	<b>Practicum Session</b> — <i>Salons A, B &amp; C</i> <i>Intended for incoming fellows and those yet to complete a practicum. Practicum coordinators are also encouraged to attend and provide a general introduction to their laboratory as it relates to potential practicum experiences.</i>
4:00 – 6:00pm	<b>DOE Laboratory Poster Session</b> — <i>Salons H, J &amp; K</i> <b>Welcome &amp; Remarks</b> <b>Dimitri Kusnezov</b> — Chief Scientist, National Nuclear Security Administration, U.S. Department of Energy

## Tuesday, July 25

7:00am – 6:00pm	<b>Registration</b> — <i>Grand Registration Desk</i>
7:00 – 8:30am	<b>Continental Breakfast</b> — <i>Salons H &amp; J</i>
8:30 – 8:45am	<b>Welcome</b> — <i>Salons A, B &amp; C</i> <b>Robert Voigt</b> — Director of Technical Programs, Krell Institute
8:45 – 9:00am	<b>Welcome</b> <b>Barbara Helland</b> — Associate Director, Advanced Scientific Computing Research, Office of Science, U.S. Department of Energy
9:15 – 9:30am	<b>Welcome</b> <b>Mark C. Anderson</b> — Director, Office of Advanced Simulation and Computing and Institutional R&D Programs, National Nuclear Security Administration, U.S. Department of Energy
9:15 – 10:00am	<b>Alumni Keynote</b> <b>Jeremy Kepner</b> — MIT Lincoln Laboratory Fellow and Lincoln Laboratory Supercomputing Center Founder; DOE CSGF Alumnus <i>“The Mathematical Convergence and Architectural Divergence of Machine Learning, Big Data, and Supercomputing”</i>
10:00 – 10:20am	<b>Break</b> — <i>Foyer, Salons A, B &amp; C</i>

**Session I** — *Salons A, B & C*  
**Moderator: Anthony Lewis** — National Nuclear Security Administration, U.S. Department of Energy

10:20 – 10:40am	<b>Nicholas Frontiere</b> — University of Chicago <i>“HACC: Fitting the Universe Inside a Supercomputer”</i>
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- 10:40 – 11:00am **David Ozog** — University of Oregon  
*"Petascale at Picoscale: An Overview of My DOE Lab Practicum Projects"*
- 11:00 – 11:20am **Alexander Turner** — Harvard University  
*"Estimating Greenhouse Gas Sources and Sinks Using Atmospheric Observations"*
- 11:20 – 11:40am **Kathleen Alexander** — Massachusetts Institute of Technology  
*"An Off-lattice Kinetic Monte Carlo Method for the Investigation of Grain Boundary Kinetic Processes"*
- 11:40am – 12:00pm **Thomas Holoién** — Ohio State University  
*"Stellar Death in the Nearby Universe"*
- 12:00 – 1:30pm **Luncheon** — *Salons H & J*
- 1:30 – 1:45pm **Announcement of 2017 Frederick Howes Scholar** — *Salons A, B & C*  
**Jeffrey Hittinger** — Acting Deputy Division Leader, Scientific Computing Group Leader and Computational Scientist, Center for Applied Scientific Computing, Lawrence Livermore National Laboratory; DOE CSGF Alumnus
- 1:45 – 2:30pm **Howes Scholar Presentation**  
**Eric Isaacs** — Postdoctoral Fellow, Northwestern University; DOE CSGF Alumnus  
*"The Elusive Single-band Correlated Material: Searching for a Needle in a Haystack via Quantum Theory and Computation"*
- 2:30 – 2:45pm **Break** — *Foyer, Salons A, B & C*

**Session II** — *Salons A, B & C*  
**Moderator: Christine Chalk** — Office of Science, U.S. Department of Energy

- 2:45 – 3:05pm **Adam Richie-Halford** — University of Washington  
*"Quantum Monte Carlo Studies of Neutron Matter"*
- 3:05 – 3:25pm **Chelsea Harris** — University of California, Berkeley  
*"Modeling Supernova Interaction With its Circumstellar Environment"*
- 3:25 – 3:45pm **David Plotkin** — University of Chicago  
*"Cyclone Simulation via Action Minimization"*
- 3:45 – 4:05pm **Daniel Rey** — University of California, San Diego  
*"Chaos and Observability in Variational Data Assimilation"*
- 4:05 – 5:00pm **Fellows' Poster Session Set-Up** — *Salons H, J & K*
- 4:05 – 5:00pm **Photo Session: Fellow/Alumni Portrait Retakes** — *Lee*
- 4:15 – 5:00pm **Fourth-Year/Outgoing Fellow Session & Portraits** — *Jefferson*
- 5:00 – 7:00pm **Fellows' Poster Session** — *Salons H, J & K*  
**Welcome & Remarks**  
**Steve Binkley** — Acting Director, Office of Science, U.S. Department of Energy

**Wednesday, July 26**

- 7:00am – 5:00pm **Registration** — *Grand Registration Desk*
- 7:00 – 8:30am **Continental Breakfast** — *Atrium*

**HPC Workshop**

*Facilitated by DOE laboratory staff teams, the 2017 HPC Workshop will provide incoming through fourth-year fellows with hands-on training and access to DOE supercomputers. The group was surveyed and assigned to a track in order to be granted access and receive instruction prior to the program review. Non-fellows are welcome to attend the workshop as observers.*

- 8:00am – 12:00pm **Track One** — *Salons A, B & C*

*"Computation on an Intel Xeon Phi (aka Knights Landing or KNL) Platform"*

NERSC/Lawrence Berkeley National Laboratory

Argonne Leadership Computing Facility, Argonne National Laboratory

- **Deborah Bard** — Big Data Architect, Data Analytics Services, NERSC
- **Hal Finkel** — Lead, Compiler Technology and Programming Languages, Argonne Leadership Computing Facility; DOE CSGF Alumnus
- **Brian Friesen** — HPC Consultant, Application Performance Group, NERSC
- **Stephen Leak** — HPC Consultant, User Engagement Group, NERSC

8:00am – 12:00pm

**Track Two** — *Salons H & J*

*"Mini-GPU Hackathon"*

Oak Ridge Leadership Computing Facility, Oak Ridge National Laboratory

- **Fernanda Foertter** — HPC User Support Specialist
- **Thomas Papatheodore** — HPC User Support Specialist
- **Adam Simpson** — HPC User Support Specialist
- **Verónica Vergara Larrea** — HPC User Support Specialist
- **Mark Berrill** — Computational Scientist; DOE CSGF Alumnus
- **Matthew Norman** — Computational Scientist; DOE CSGF Alumnus

12:00 – 1:00pm

**Luncheon** — *Atrium*

1:00 – 5:00pm

**Track One (continued)** — *Salons A, B & C*

*"Computation on an Intel Xeon Phi (aka Knights Landing or KNL) Platform"*

NERSC/Lawrence Berkeley National Laboratory

Argonne Leadership Computing Facility, Argonne National Laboratory

1:00 – 5:00pm

**Track Two (continued)** — *Salons H & J*

*"Mini-GPU Hackathon"*

Oak Ridge Leadership Computing Facility, Oak Ridge National Laboratory

## Thursday, July 27

7:00 – 10:30am

**Registration** — *Grand Registration Desk*

7:00 – 8:30am

**Continental Breakfast** — *Salons H & J*

### Session III — *Salons A, B & C* Moderator: **Thomas R. O'Donnell** — Krell Institute

8:30 – 8:45am

**CYSE Contest Award Presentation**

**Thomas R. O'Donnell** — Senior Media Editor, Krell Institute

8:45 – 9:30am

**Michael Heroux** — Senior Scientist, Sandia National Laboratories; Scientist in Residence, St. John's University, Minnesota

*"Better Science Through Better Software"*

9:30 – 10:15am

**William Conley** — Deputy Director, Electronic Warfare, Office of the Under Secretary of Defense for Acquisition, Technology and Logistics, U.S. Department of Defense; DOE CSGF Alumnus

*"Looking Back on Our Postmodern Zeitgeist"*

10:15 – 10:30am

**Break/Check Out**

10:30 – 11:45am

**Postdoc-to-Career Panel**

*DOE CSGF alumni will talk about their postdoc positions and careers since completing the fellowship. With collective experience working in academia, industry and the DOE laboratories, the group will also field related questions from the audience.*

- **Jaydeep Bardhan**, Moderator — Business Lead, Insights for Medicines (Insights from Data Group), GSK
- **Ashlee N. Ford Versypt**, Panelist — Assistant Professor, Oklahoma State University
- **Carolyn Phillips**, Panelist — Data Scientist, Capital One
- **Aurora Pribram-Jones**, Panelist — Lawrence Postdoctoral Fellow, Lawrence Livermore National Laboratory; President's Postdoctoral Fellow, University of California, Berkeley

- **Mike Rosario**, Panelist — Postdoctoral Fellow, National Science Foundation/Brown University
- **Brandon Wood**, Panelist — Staff Scientist, Lawrence Livermore National Laboratory

12:00 – 1:00pm

**Luncheon** — *Salons H & J*

*Buffet-style with grab-and-go options for those with afternoon departures.*

