Welcome to SC13

An Introduction to the Supercomputing Conference
Orientation Agenda

- Welcome – Bill Gropp
- SCinet – Trey Breckenridge
- Technical Program – Satoshi Matsuoka
- Exhibits – Jim Costa
- HPC Interconnections – Liz Jessup
- Schedule and Wayfinding – Kevin Wohlever
- Safety and Emergencies – Larry Lopez
Bill Gropp
Conference Chair

University of Illinois at Urbana-Champaign
SCinet

Trey Breckenridge
Mississippi State University
SCinet is the word's fastest network...

SCinet requires:
1 year to design
1 month to build
1 week to operate
1 day to teardown

SC13 SCinet is:
- 885 Gigabit per second of total bandwidth onto the Exhibit show floor in collaboration with national & international research networks
- 130 volunteer engineers and professionals from industry, academia, and government institutions worldwide
- $21 Million in donated equipment
- Over 90 miles of newly installed fiber optic cable lines in the Colorado Convention Center
Attendee and Exhibitor support includes:

- Wireless connectivity with SSIDs
  - SC13 and eduroam
- Wired connectivity at 1, 10, 100 Gbps
- Internet access
- Network utilization and security monitoring
- Network Research Exhibition
- SCinet Help Desk
• Please visit SCinet in Booth 2132

• Ask questions at the SCinet Help Desk!

• Thank you and have a great SC13 experience!
Technical Program

Satoshi Matsuoka
Tokyo Institute of Technology
All elements of the Tech Program are rigorously peer-reviewed by their respective technical committees

- **Tutorials**: 30 on Sun/Mon
- **Workshops**: 30 on Sun/Mon/Fri (incl. 7 on Fri)
- **Keynote**: Tue 8.30–10.00, Genevieve Bell (Intel)
- **Plenary Invited Speakers**: Wed/Thu, 8.30–10.00
  - Warren Washington (NCAR), Saul Perlmutter (LBNL)
  - Alok Choudhary (Northwestern U), Vern Paxson (UC Berkeley)
- **Award Talks**
  - Cray/Fernbach/Kennedy Award Recipient Talks: Tue 13:30-15:00
  - ACM Athena Award: Kathy Yelick (UC Berkeley) Thu 13:30-14:15
  - SC Test of Time Award (new): Bill Pugh (U Maryland) Thu 14:15-15:00
  - ACM Gordon Bell Prize Finalists
  - ACM Student Research Competition
- **Invited Speakers**: 11 on Tue/Wed/Thu (Mile High)
Technical Program

- Technical Papers: 90 on Tue/Wed/Thu
- Panels: 11 on Tue–Fri
- Special Panel: SC Silver Anniversary on Thu 15:30 Mile High
- Birds-of-a-Feather sessions (BoFs): 85 on Tue/Wed/Thu
- Posters and Visualization Showcase (Tue/Wed/Thu)
  - 83 posters, Includes ACM Student Research Competition
  - 16 visualization showcase co-located
  - Reception: Tue 17.15–19.00
- Emerging Technologies (new) – 17 on Exhibit floor
- Awards Session: Thu 12.30–13.30: All are invited!
  - Best paper/student-paper/poster, ACM Gordon Bell Prize, IEEE TCSC Young Researchers (new), Student cluster challenge, George Michael Fellowship, ACM Student Research Competition, SC Test of Time Award (new)
Exhibits

Jim Costa
Sandia National Laboratories
• Broader Engagement
• HPC Educators

• Doctoral Showcase
• Experiencing HPC for Undergraduates
• Student Cluster Competition
• Student Volunteers
• Student Job/Opportunity Fair
• International
What’s with that name?

- Formerly Community or maybe Communities
  - Which one
  - What does it mean?
HPC Interconnections (HPCI)

• HPC brings people, ideas, communities together
• Greatest HPC developments resulted from community interactions

• HPCI provides welcoming entry to those new to HPC or SC13 HPC Interconnections (HPCI)
• Helps everyone get more out of the conference
Schedule and Wayfinding

Kevin Wohlever
Ohio Supercomputer Center
Schedules and Wayfinding

- Conference Schedule at a Glance in your conference bag
  - Full conference schedule is online and on USB
  - Conference app available for smartphones; search for “SC13” in your phone’s store or market
- Posters and electronic signage throughout convention center
- Exhibitor Directory and Exhibits Floor Map in your conference bag
- Information Booth located next to Registration
- Conference Help Line: 303-228-8502
Safety and Emergencies

Larry Lopez
RA Consulting
Safety and Emergencies

• Be aware of your surroundings and your belongings
  – Remove your conference badge when you are outside of the convention center
  – Travel in pairs when possible

• For emergencies in the convention center, use the beige house phones to contact building emergency services.
  – They can respond much more quickly than the city’s 911 service

• Lost and Found is located next to the Coat Check area in the Lobby by Registration
  – If you find something, give it to them
  – If you lose something, ask them
HPC Educators
(Administrivia)

Almadena Chtchelkanova
National Science Foundation
Per Diem Distribution Times

Sunday 17-Nov
• 10:00 BE 707/711 etc
• 12:00 ED 708/710/712
• 3:00 BE/ED 707 or 708

Monday 18-Nov
• 12:00 BE/ED (if needed) 707 or 708
8:30 – 10:00 Daily Sessions

• **Sunday Plenary:** Kunle Olukotun, Stanford University
  *Making Parallelism Easy: A 25 Year Odyssey*

• **Monday Plenary:** Irene Qualters, National Science Foundation
  *Perspectives on Broadening Engagement and Educations in the context of Advanced Computing*

• **Tuesday Keynote:** Genevieve Bell, Technology Anthropologist, Intel Fellow
  *The Secret Life of Data*

• **Wednesday Invited Speaker:** Warren Washington, National Center for Atmospheric Research
  *Climate Earth System Modeling for the IPCC Sixth Assessment Report (AR6): Higher Resolution and Complexity*

• **Thursday Invited Speaker:** Saul Perlmutter, Lawrence Berkeley National Lab
  *Data, Computation, and the Fate of the Universe*
HPC Educator's Program Materials

- Serious Computational Examples for Science Classes
- Supercomputing in Plain English
- Exploring parallelization strategies at undergraduate level
- Going Parallel with C++11 [All Materials]
- Strategies for Introducing Parallelism with Python
- High-Level Parallel Programming Using Chapel [Cheat Sheet]
- CSinParallel: Using Map-Reduce to Teach Data-Intensive Scalable Computing Across the CS Curriculum
- Curriculum Workshop: Mapping CS2013 and NSF/TCPP Parallel and Distributed Computing Recommendations and Resources to Courses
- An Educator’s Toolbox for CUDA