



SUNDAY, JULY 22

4:30 PM - 8:00 PM

- Student Program Opening Activity (*Commonwealth 1*)

5:00 PM - 7:00 PM

- Campus Champion Leadership Team Meeting (*Black Diamond*)

MONDAY, JULY 23

7:00 AM - 8:30 AM

Breakfast (*Grand Ballroom 2*)

8:30 AM - 12:00 PM

- Introduction to OpenMP Using the Interactive Parallelization Tool (*Fort Pitt*)
- An introduction to Machine Learning with TensorFlow and Keras (*Grand Ballroom 4*)
- Introduction to Visualization using Paraview (*Duquesne*)
- Introduction to Python 3 and Jupyter Notebooks (*Benedum*)

8:30 AM - 5:00 PM

- Advanced Manycore Programming (*Birmingham*)
- Applying Best Practices in Practice: SciOps with the Agave Platform (*Sterlings 2 & 3*)
- Champions 101 (*Kings Garden 2*)
- Developing and Using Best Practices for Managing HPC/DA Centers (*Sterlings 1*)

- Hackathon: Dev. and Applying Best Practice Protocols for Running Apps & Software on HPC Systems (*Rivers*)
- Programmable Cyberinfrastructure-Clusters in the Cloud (*Brigade*)
- Deploying Portable Research and Learning Environments on Commercial Clouds and XSEDE (*Smithfield*)
- Models and Practices for Building Diverse Research Computing Teams (*Kings Garden 1*)

10:00 AM 0 10:30 AM

- **Morning Break** (*Grand Ballroom/Kings Landing Foyer*)

10:00 AM - 5:00 PM

- **Exhibition** (*Grand Ballroom/Kings Landing Foyer*)

12:00 PM - 1:30 PM

- **Lunch** (*Grand Ballroom 2*)

1:30 PM - 5:00 PM

- Getting Started with Deep Learning (*Grand Ballroom 4*)
- I Learned Python, Now What: Python 102 for Scientific Computing and Data Analysis (*Benedum*)
- Introduction to MPI Using the Interactive Parallelization Tool (*Fort Pitt*)

3:00 PM - 3:30 PM

- **Afternoon Break** (*Grand Ballroom/Kings Landing Foyer*)

Media Partners

5:15 PM - 6:00 PM

- CaRC Member Meeting (*Duquesne*)

6:00 PM - 8:00 PM

- Campus Champions Networking Event (*Commonwealth 2*)

6:30 PM - 8:00 PM

- Student-Mentor Dinner (*Commonwealth 1*)

TUESDAY, JULY 24

7:00 AM - 8:00 AM

- **Breakfast** (*Grand Ballroom 2*)

8:00 AM - 10:00 AM

- Bytes and BTUs: Lessons Learned from the World's Most Energy Efficient Data Center (*Grand Ballroom 1*)
- New Software Institute Conceptualization Project and how you can Engage (*Grand Ballroom 1*)

10:00 AM - 10:30 AM

- **Morning Break** (*Grand Ballroom/Kings Landing Foyer and Kings Garden 3-4-5*)

10:00 AM - 5:00 PM

- Exhibition/Research Posters /Visualization (*Grand Ballroom/Kings Landing Foyer and Kings Garden 3-4-5*)

10:30:00 AM - 12:00 PM

- Delivery and Evaluation of Training/Facilitation (*Kings Garden 1*)
- Facilitation: Gateways (*Grand Ballroom 4*)



- Facilitation: Scheduling, HPC, Cloud, and Gateways (*Grandballroom 3*)

- Facilitation: Scheduling, HPC, Cloud, and Gateways (*Grand Ballroom 3*)
- Showcase (*Smithfield and Birmingham*)
- Visualization (*Kings Garden 2*)

10:30 AM - 5:00 PM

- High Performance Computing Security and Compliance (*Duquesne*)
- Student Modeling Challenge (*Sterlings 2 and 3*)
- The 2nd International Workshop on the US-China Collaboration in Experience and Best Practice (*Brigade*)

12:00 PM - 1:30 PM

Lunch (*Grand Ballroom 2*)

1:30 PM - 1:45 PM

- Data Analytics/Deep Learning (*Kings Garden 2*)
- Facilitation: HPC (*Grand Ballroom 3*)

1:30 PM - 3:00 PM

- First Principles in Advanced Cyberinfrastructure... (*Kings Garden 1*)
- Transforming Scientific Computing with Cloud Technologies (*Grand Ballroom 4*)

1:30 PM - 5:00 PM

- How to Accelerate Your Big Data and Associated Deep Learning Applications with Hadoop and Spark (*Sterlings 1*)

- Introduction to Science Gateways for New Users (*Rivers*)

- Library and Research Computing Efforts and Tools to Improve Data Sharing and Archiving (*Fort Pitt*)

- Practical Cybersecurity Programs for Science Projects and Facilities (*Smithfield and Birmingham*)

- Software Engineering Practice for Science, Research, and Scientific CI (*Benedum*)

1:45 PM - 3:00 PM

- Data Analytics/Deep Learning (*Kings Garden 2*)
- Facilitation: HPC (*Grand Ballroom 3*)

3:00 PM - 3:30 PM

- **Afternoon Break** (*Grand Ballroom/Kings Landing Foyer and Kings 3-4-5*)

3:30 PM - 5:00 PM

- Application Performance and Tuning (*Grand Ballroom 4*)
- Workflow Systems and Computational Frameworks (*Kings Garden 2*)
- Personal/Professional Development (*Kings Garden 1*)

5:00 PM - 6:00 PM

- Getting SysAdmins and Scientists to Play Nice (*Grand Ballroom 3*)
- Join the Conversation: Strategies for Organizing a Local, State or National Women in HPC (*Smithfield and Birmingham*)



PEARC18

Practice and Experience in Advanced Research Computing 2018

Conference Schedule

Color Legend:

- Special Events
- Tutorials
- Technical Papers, Student Technical Papers
- Plenary
- Workshops
- Panels
- Birds of a Feather

Thanks to our Platinum Supporter



July 22-26, 2018 | Pittsburgh, PA
PEARC18.PEARC.ORG

Sergiu Sanielevici,
General Chair



- Omni-Path User Group (OPUG) Meeting (*Kings Garden 1*)
- On Launching a Research Computing Q&A Site using StackExchange and Discourse (*Duquesne*)
- Open OnDemand - Present and Future Plans (*Kings Garden 2*)
- Scaling the Services of Research Computing Teams (*Brigade*)
- Supporting Student-Driven Research... (*Benedum*)
- XSEDE Digital Badges: Are they appropriate?... (*Grand Ballroom 4*)

6:00 PM - 7:00 PM

- CASC Meeting (*Fort Pitt*)

6:30 PM - 8:30 PM

- Poster Session (*Kings Garden 3-4-5*)
- Visualization Showcase (*Kings Garden 3-4-5*)

WEDNESDAY, JULY 25

7:00 AM - 8:00 AM

- Breakfast (*Grand Ballroom 2*)

8:00 AM - 10:00 AM

- Neuroscience and Advanced Computing (*Grand Ballroom 1*)
- AI: What Makes it Hard and Fun (*Grand Ballroom 1*)
- Using Advanced Computing to Recover Black Women's Lost History (*Grand Ballroom 1*)

10:00 AM - 10:30 AM

- Morning Break (*Grand Ballroom/Kings Landing Foyer and Kings Garden 3-4-5*)

10:00 AM - 5:00 PM

- Exhibition/Research Posters/Visualization (*Grand Ballroom/Kings Landing Foyer and Kings Garden 3-4-5*)

10:30 AM - 12:00 PM

- Applications of HPC (*Kings Garden 1*)
- Facilitation: Data and Identity Management (*Grand Ballroom 4*)
- Container Applications (*Kings Garden 2*)
- Facilitation Panels: XSEDE and Science Communication (*Grand Ballroom 3*)
- XDMoD User's Group Meeting (*Brigade*)

10:30 AM - 3:00 PM

- PEEQ @ PEARC: Practice & Experience in Emotional Intelligence (EQ) (*Duquesne*)

12:00 PM - 1:30 PM

- XMS Technical Advisory Committee Meeting (*Brigade*)
- EQ and related topics Lunch discussion following PEEQ @ PEARC workshop (*Grand Ballroom 2*)

12:00 PM - 1:30 PM

- Lunch (*Grand Ballroom 2*)
- Student-Mentor Lunch (*Sterlings 2 and 3*)

1:30 PM - 2:15 PM

- NSF Office of Advanced Cyberinfrastructure Town Hall (*Grand Ballroom 1*)

1:30 PM - 5:00 PM

- Advanced Globus Platform Development: Automating Workflows and Building Science Gateways (*Brigade*)
- Engineering your Application for Peak Performance with TAU and MVAICH2 (*Sterlings 1*)
- Hyperglyphs: Exploring the Limits of Glyph Structure to Improve Visual Analytics Methodologies (*Rivers*)
- Scalable HPC Visualization and Data Analysis using VisIt (*Benedum*)

- Workshop on Strategies for Enhancing HPC Education and Training (*Fort Pitt*)

2:30 PM - 3:00 PM

- Dealing with Long-Tail Data (*Kings Garden 2*)
- Facilitation: Network (*Grand Ballroom 4*)
- Facilitation: Return on Investment (*Grand Ballroom 3*)

3:00 PM - 3:30 PM

- Afternoon Break (*Grand Ballroom/Kings Landing Foyer and Kings Garden 3-4-5*)

3:30 PM - 5:00 PM

- Facilitation: Cloud (*Grand Ballroom 3*)
- Science Gateways (*Kings Garden 2*)
- Undergraduate Education (*Kings Garden 1*)

5:00 PM - 6:00 PM

- Academic HPC Center ROI Calculations and Cloud Provider Comparisons (*Grand Ballroom 3*)
- Bringing Professional Skills Training to CI (*Duquesne*)
- CI 2030 - A Community Discussion (*Brigade*)
- Cyberinfrastructure Challenges and Opportunities in the Era of Big Data (*Grand Ballroom 4*)
- HPC System Professionals (*Benedum Room*)
- Impact of dedicated scientific IT infrastructure and support on modern research (*Rivers*)
- Networking Best Practices to Optimize Scientific Discovery on Expensive HPC Resources (*Fort Pitt*)
- Raising the Bar for High Quality HPC Learning Repositories (*Kings Garden 1*)
- Science Gateways and You (*Grand Ballroom 2*)

6:30 PM - 8:30 PM

- PEARC18 Reception (*Grand Ballroom/Kings Landing Foyer and Kings Garden 3-4-5*)

Thanks to our Gold Supporters:

- DDN Storage
- Dell
- VMware
- XSEDE

Thanks to our Silver Supporter:

- CASC

THURSDAY, JULY 26

7:00 AM - 8:00 AM

- Breakfast (*Grand Ballroom 2*)

8:00 AM - 10:00 AM

- Hacking Academia (*Grand Ballroom 3*)
- Trusted CI Panel Discussion (*Grand Ballroom 3*)

10:00 AM - 10:30 AM

- Morning Break (*Grand Ballroom/Kings Landing Foyer/King Gardens 3-4-5*)

10:30 AM - 12:00 PM

- Championing Research Computing Plenary (*Kings Ballroom 3*)

12:00 pm - 1:30 PM

- Awards Lunch (*Grand Ballroom 1*)

1:30 PM - 3:00 PM

- XSEDE All-Staff Meeting (*Kings Garden 1*)

2:00 PM - 7:00 PM

- Science Gateways Hackathon (*Kings Garden 4 and 5*)

3:00 PM - 4:00 PM

- ECSS Staff Meeting (*Kings Garden*)

4:00 PM - 6:00 PM

- ECSS Staff Training: Containers and Virtualization in ECSS Projects (*Kings Garden*)

FRIDAY, JULY 27

8:00 AM - 7:00 PM

- Science Gateways Hackathon (*Kings Garden 4 and 5*)

Thanks to our Bronze Supporters:

- Comcast Business
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- SCINCENODE
- SDSC

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- Pittsburgh Supercomputing Center
- PSSC Labs
- Qumulo
- Quobyte
- Sera-Brynn
- SchedMD
- Starfish
- Trusted CI