

All papers listed here are available via Emory Libraries. Pick a paper → go to the #presentations channel on Slack → announce the paper that you will be presenting. I will add a few more papers to this list.

Your presentation will be 20-25 mins long, followed by 5-10 mins for questions.

APPLICATIONS

1. 11 PFLOP/s Simulations of Cloud Cavitation Collapse.
2. Petascale Direct Numerical Simulation of Blood Flow on 200K Cores and Heterogeneous Architectures (JEFF S.)
3. The Cat is Out of the Bag: Cortical Simulations with 109 Neurons, 1013 Synapses (SIWEI WANG)
4. Big Data Staging with MPI-IO for Interactive X-ray Science (POOYA)
5. Biomedical image analysis on a cooperative cluster of GPUs and multicores (Hartley et. al.)
6. Scientific Computing Meets Big Data Technology: An Astronomy Use Case (Zhang et. al.)
– <https://goo.gl/UsjYFX>
7. ADAM: Genomics Formats and Processing Patterns for Cloud Scale Computing -
<https://goo.gl/CNJNlm>

ARCHITECTURE

8. Anton 2: raising the bar for performance and programmability in a special-purpose molecular dynamics supercomputer (ZIWEI)
9. Exascale Computing and Big Data (WANGYX05)
10. Top Ten Exascale Research Challenges. Office of Science (Focus on any 3 of the 10 challenges listed) (KEVIN)

SYSTEMS AND RUNTIME

11. Parallel Scripting for Applications at the Petascale and Beyond (MOHSEN)
 - Suggest that you refer to Swift (<http://swift-lang.org/main/>) and include it in your presentation
12. Present a case-study of Swift in action (SERGIO)
 - Refer to some of the applications listed on their page (<http://swift-lang.org/main/>)
13. MapReduce: simplified data processing on large clusters (SAHAR)
14. MapReduce for data intensive scientific analyses (FATEMEH)
15. GraphReduce: processing large-scale graphs on accelerator-based systems
16. Exploring network optimizations for large-scale graph analytics