

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
3. The Cat is Out of the Bag: Cortical Simulations with 109 Neurons, 1013 Synapses
4. Big Data Staging with MPI-IO for Interactive X-ray Science

ARCHITECTURE

5. Anton 2: raising the bar for performance and programmability in a special-purpose molecular dynamics supercomputer
6. The Landscape of Parallel Computing Research: A View From Berkeley
7. Exascale Computing and Big Data
8. Top Ten Exascale Research Challenges. Office of Science
9. Focus on any 3 of the 10 challenges listed

SYSTEMS AND RUNTIME

10. Parallel Scripting for Applications at the Petascale and Beyond
 - Suggest that you refer to Swift (<http://swift-lang.org/main/>) and include it in your presentation
11. Present a case-study of Swift in action
 - Refer to some of the applications listed on their page (<http://swift-lang.org/main/>)
12. MapReduce: simplified data processing on large clusters
13. MapReduce for data intensive scientific analyses