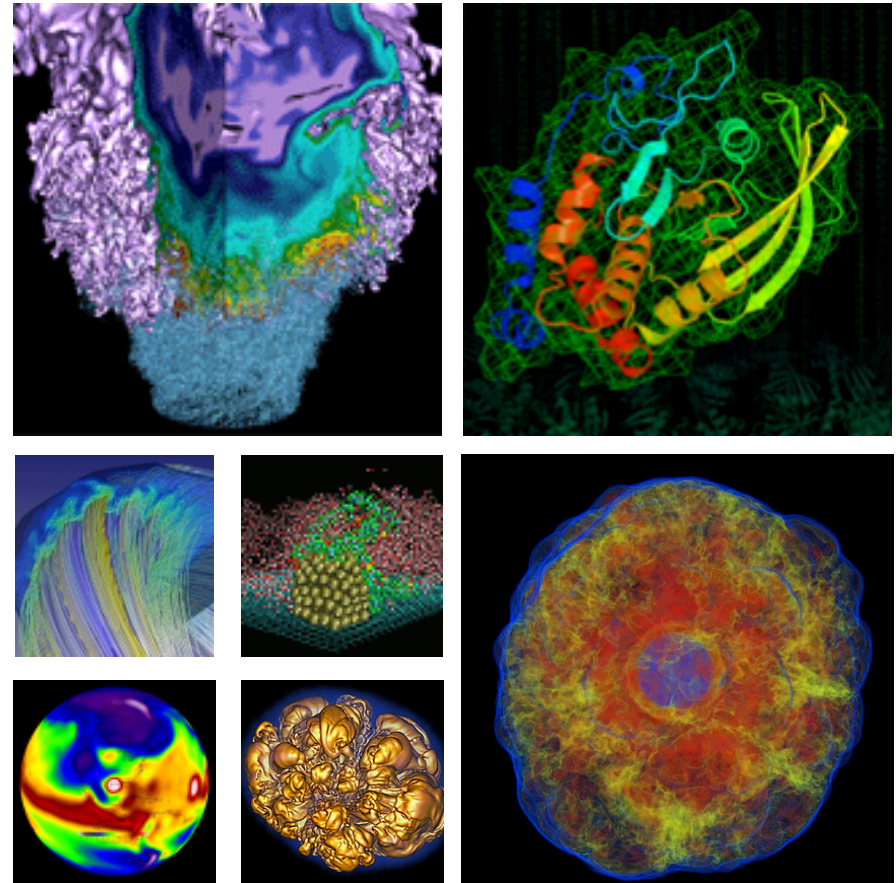


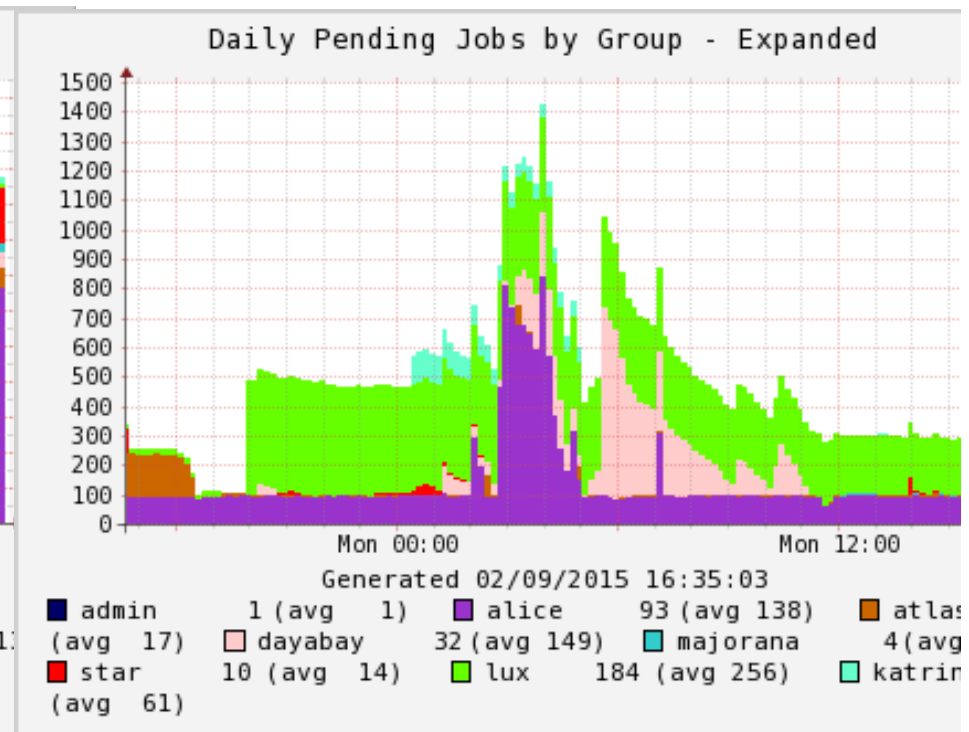
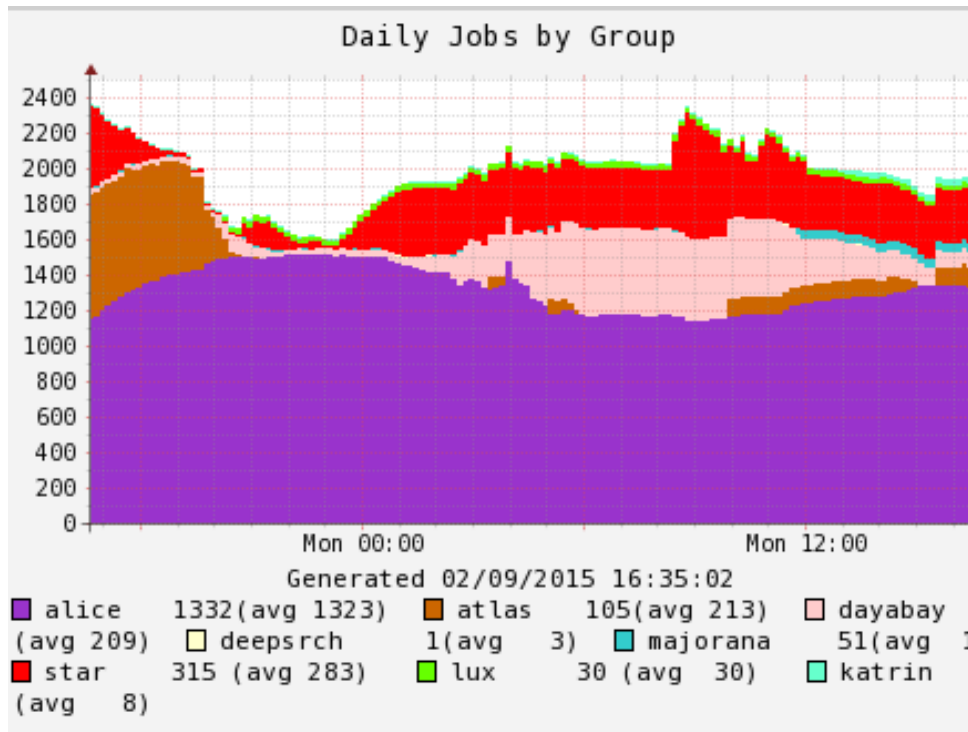
ALICE Memory Usage



Lisa Gerhardt
Iwona Sakrejda

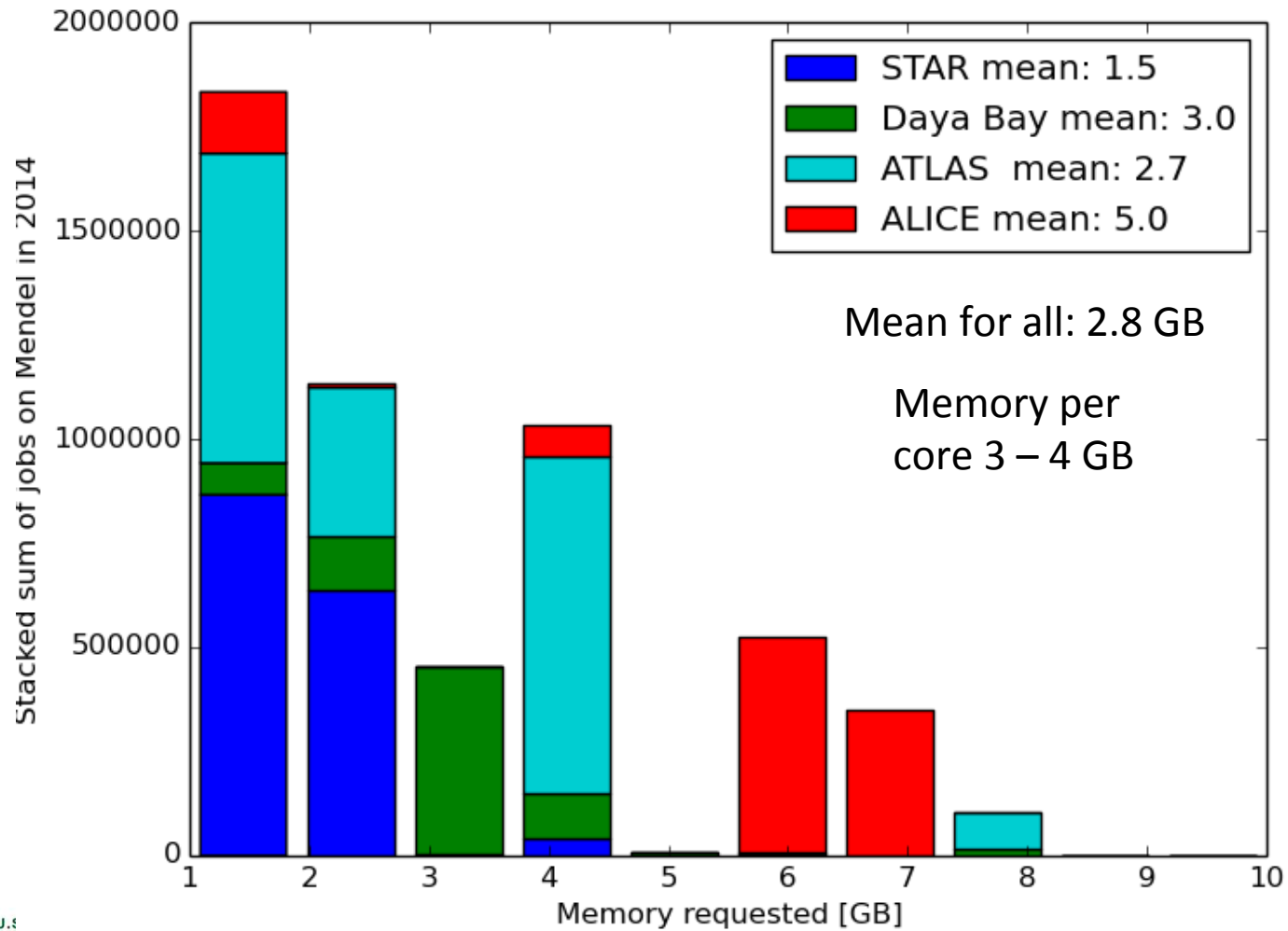
February 13, 2015

PDSF is often full



PDSF is ~2700 cores

Memory Request by Group

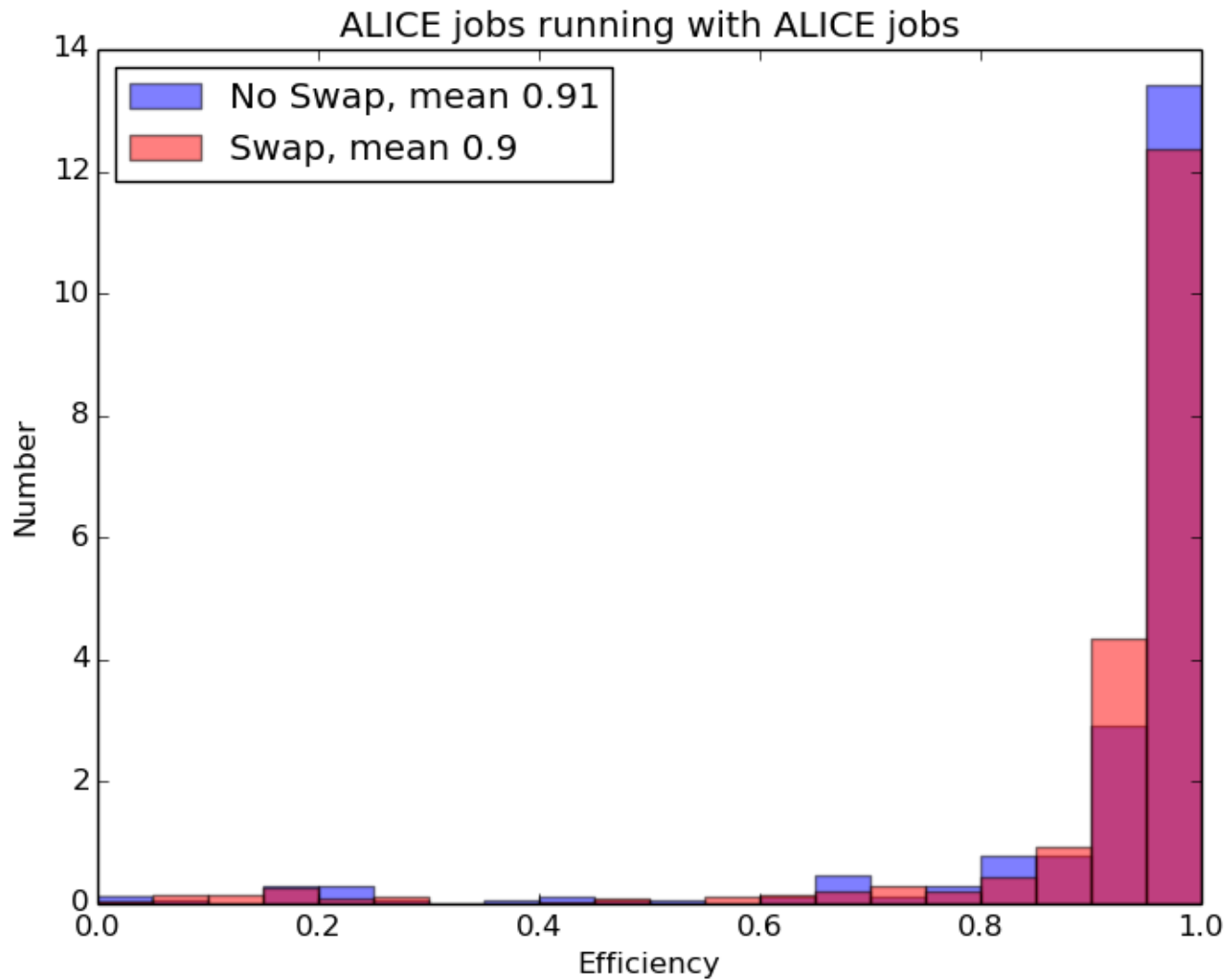


Enabling Memory Swap

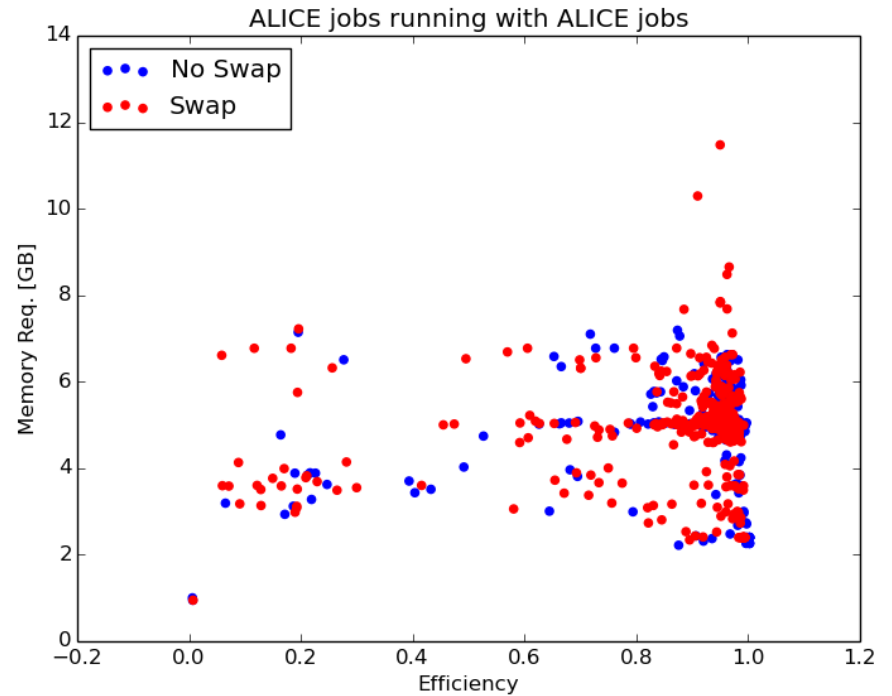
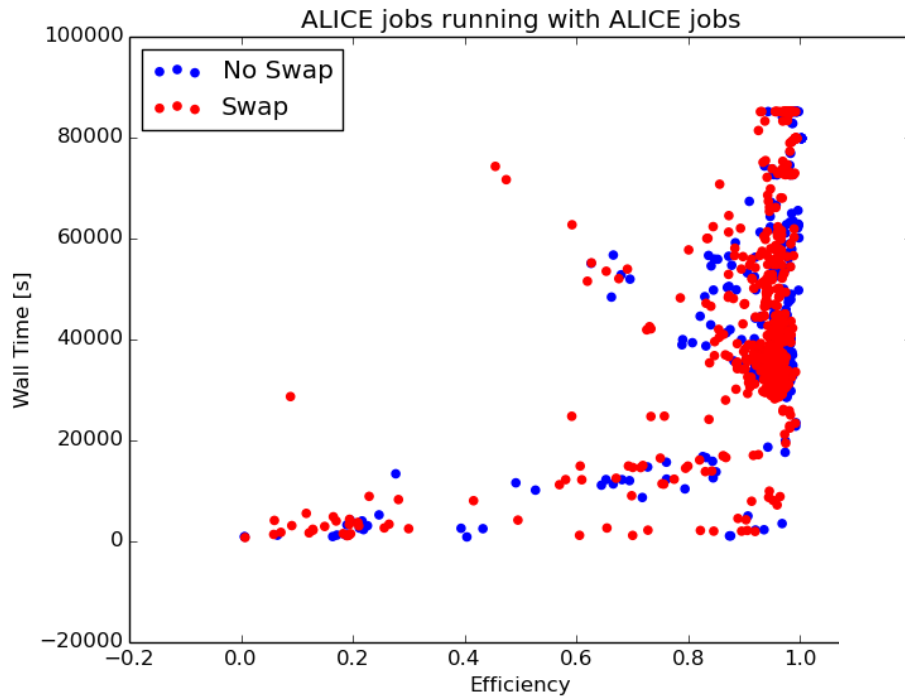


- **Tony and Iwona worked to increase the swap on a subset of nodes**
- **Initially ran with only ALICE jobs, but then opened to all jobs**
- **Measured effect by looking at efficiency: CPU / Wall time**
 - Only jobs that ran for more than 10 minutes

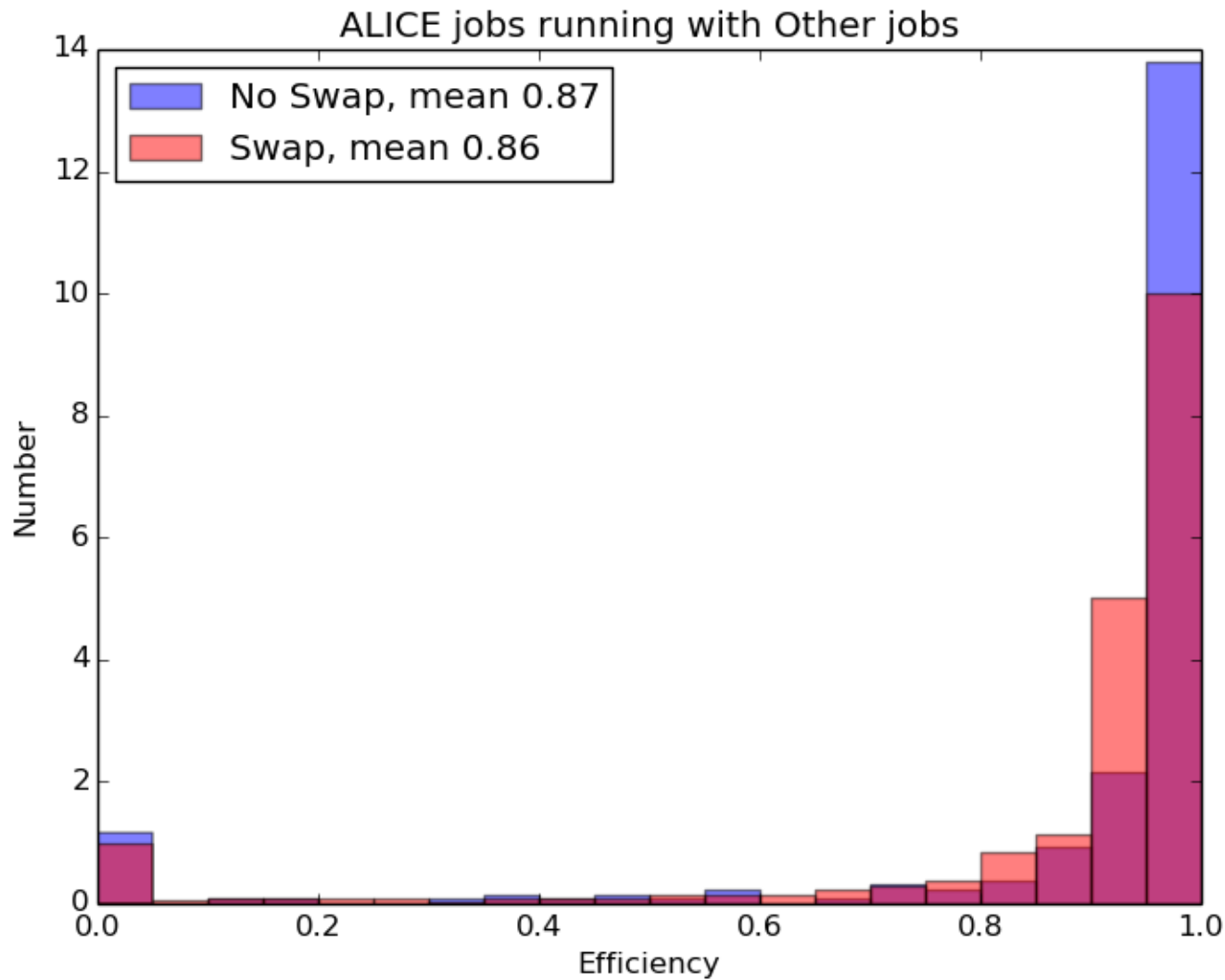
Only ALICE jobs with swap



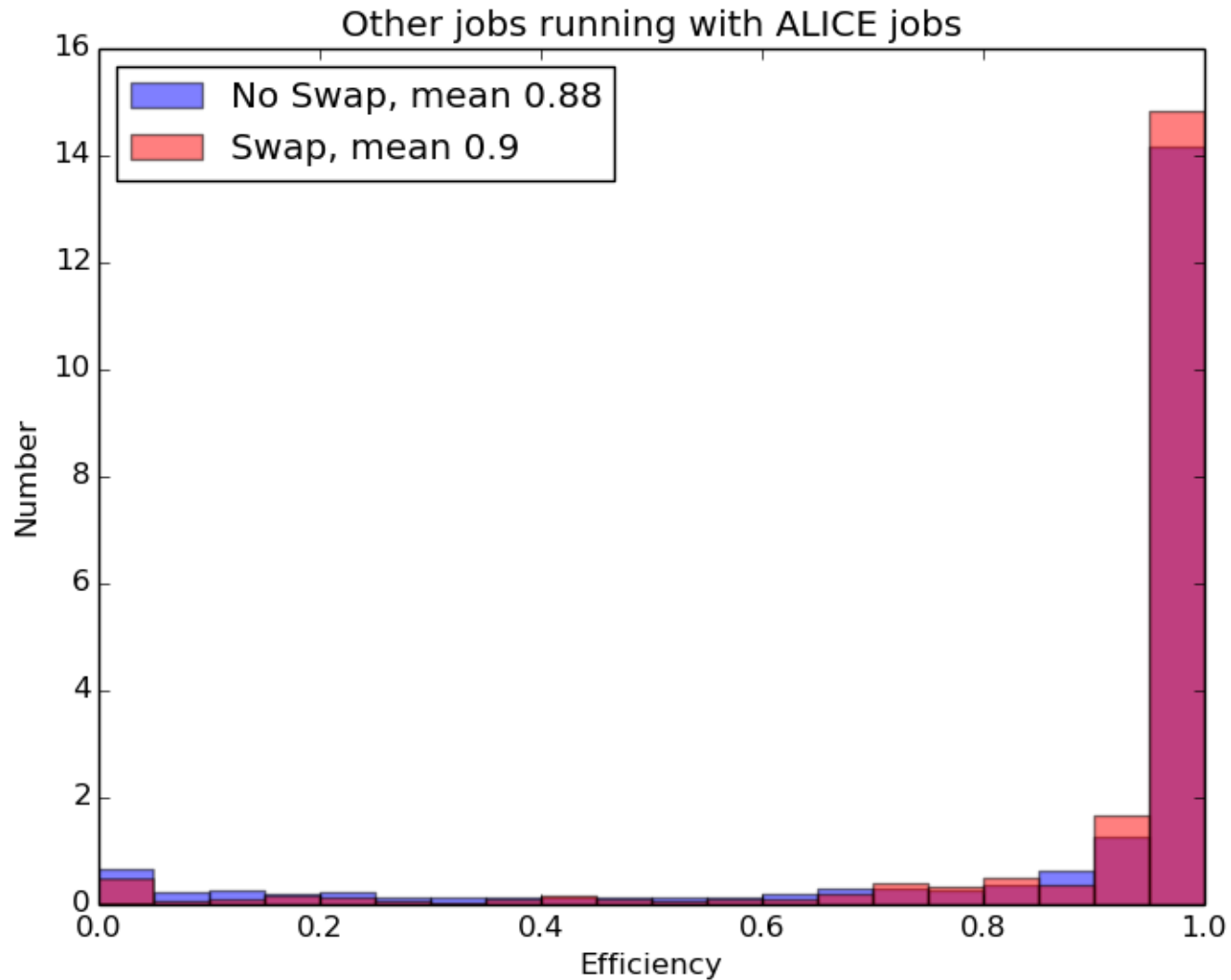
What are These Tail Jobs?



Same Effect With Other Jobs



ALICE Swaps Well with Other Jobs



- **Enable large swap in new procurement coming to the hill**
 - Give enough so that each core has 6 GB
 - Must continuously monitor job efficiency to watch for drop in performance (subject to SC approval)
- **Can do this for older Mendel's as well, but will require XRootD drain**



National Energy Research Scientific Computing Center

Memory Usage and Node Occupancy



- Cluster often fills up on memory before cores

