Integration of the Chinese HPC Grid in ATLAS Distributed Computing

Andrej Filipčič on behalf of the ATLAS Collaboration

Highlights

- 15 HPC centers participating in transparently accessible infrastructure
- SCEAPI - the RESTFul interface to CNGrid
- SCEAPI similar to grid Compute Element
- Each HPC has it's own PanDA queue
  - BEiJING-ERAII_MCORE, BEIJING-TIANJIN-TH-1A_MCORE, ...
  - arcContolTower submits activated jobs to ARC-CE at IHEP, Beijing
  - ARC-CE transfers data from IHEP Storage Element to CNGrid and submits the payload to the targeted HPC
  - Outputs are delivered to IHEP SE
- CNGrid has simulated about 1% of ATLAS MC events in 2016, contributing 3.5M cpu hours
- ATLAS used limited resources at CNGrid for production up to now, but there are possibilities for a significant cputime allocation on several of the world's largest machines