Computing in High Energy and Nuclear Physics (CHEP) 2012

Monday, 21 May 2012 - Friday, 25 May 2012

New York City, NY, USA

Scientific Programme

Online Computing (track 1)

CPU farms for high-level triggering; Farm configuration and run control; Describing and managing configuration data and conditions databases; Online software frameworks and tools; Online calibration procedures; Remote access to and control of data acquisition systems and experimental facilities.

Event Processing (track 2)

Event generation, simulation and reconstruction; Detector geometries; Physics analysis; Tools and Techniques for data classification and parameter fitting; Event visualization and data presentation; Frameworks for event processing; Toolkits for simulation, reconstruction and analysis; Event data models.

Distributed Processing and Analysis on Grids and Clouds (track 3)

Distributed data processing; Data management; Distributed analysis; Distributed processing experience including experience with Grids and Clouds; Experience with real productions and data challenges; Experience with real analysis using distributed resources; Interactive analysis using distributed resources; Solutions for coping with a heterogeneous environment; Experience with virtualization; Mobile computing; Monitoring of user jobs and data, Grid/Cloud software and monitoring tools; Global usage and management of resources; Grid/Cloud middleware interoperability; Grid/Cloud middleware reliability; Grid/Cloud security; Evolution and perspective of Grid and Clouds; Experiment specific middleware applications.

Computer Facilities, Production Grids and Networking (track 4)

Basic hardware, benchmarks and experience; Hardware trends and issues such as multi-core, GPU, FPGA, etc; Fabric virtualization; Fabric management and administration; Local site I/O and data access; Mass storage systems; Local and wide area networking.

Software Engineering, Data Stores and Databases (track 5)

Programming techniques and tools; Software testing and quality assurance; Configuration management; Software build, release and distribution tools; Documentation; Foundation and utility libraries; Mathematical libraries; Component models; Object dictionaries; Scripting; Event stores; Metadata and supporting infrastructure; Databases.

Collaborative tools (track 6)

Collaborative systems, progress in technologies and applications; Advanced teleconferencing systems; Experience in the usage of teleconferencing tools.