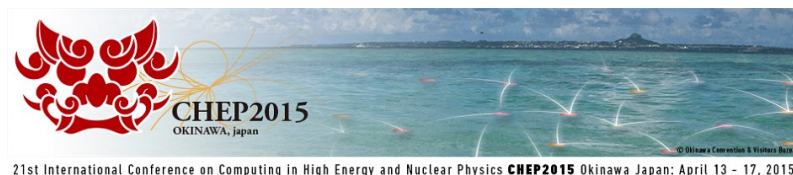


21st International Conference on Computing in High Energy and Nuclear Physics (CHEP2015)



Monday, April 13, 2015 - Friday, April 17, 2015

OIST

Scientific Program

This conference covers following topics represented by 'keywords'.
The keywords are categorized in two areas: Applications and Technologies.

Abstract submitters should check as many keywords as they think they fit. The keywords selection is not mandatory for the abstract submissions, but warmly suggested as it helps the PC to organize the tracks.

In case of questions/doubts about which keywords to select, please contact the PC chair (e-mail: chep2015-pc-chair@icepp.s.u-tokyo.ac.jp).

A01 DAQ

Application Keywords

A02 Trigger

Application Keywords

A03 Simulation

Application Keywords

A04 Reconstruction

Application Keywords

A05 Data analysis

Application Keywords

A06 Data stores

Application Keywords

A07 Experiment frameworks for WAN distributed computing

Application Keywords

A08 Middleware and services for production-quality infrastructures

Application Keywords

A09 Outreach

Application Keywords

A10 Multi-discipline / multi-experiment topic

Application Keywords

A11 Computing models

Application Keywords

A12 Data preservation

Application Keywords

A13 Monitoring

Application Keywords

T01 Control systems

Technologies Keywords

T02 Event processing frameworks

Technologies Keywords

T03 Data structures and algorithms

Technologies Keywords

T04 Data handling/access

Technologies Keywords

T05 Databases

Technologies Keywords

T06 Storage systems

Technologies Keywords

T07 Computing facilities and infrastructures

Technologies Keywords

T08 Software design

Technologies Keywords

T09 Software development process

Technologies Keywords

T10 Performance and validation tools

Technologies Keywords

T11 Continuous integration systems

Technologies Keywords

T12 Parallel programming

Technologies Keywords

T13 Networking

Technologies Keywords

T14 Collaborative tools

Technologies Keywords

T15 Cloud computing

Technologies Keywords

T16 Virtualization

Technologies Keywords

T17 High performance computing

Technologies Keywords

T18 CPU architectures, GPU, FPGA

Technologies Keywords

Track1: Online computing

DAQ and Trigger; development, design, architecture for filtering, reconstruction, etc. and use within experiments and facilities; evaluation and testing of such systems; parallelism, HPC, and accelerator use in such systems; event building and farm networks; compute farms for high-level triggering; configuration and run controls; describing and managing configuration data and conditions databases; online software frameworks and tools; online calibration procedures; remote access to (and control of) DAQ systems and experimental facilities.

Track2: Offline software

event generation, simulation and reconstruction; detector geometries, algorithms for 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.

Track3: Data store and access

storage management; local I/O and data access; mass storage systems; object dictionaries; event stores; metadata and supporting infrastructure; databases; access patterns and caching strategies.

Track4: Middleware, software development and tools, experiment frameworks, tools for distributed

computing

Grid middleware; software reliability, interoperability and security; experiment specific middleware applications; software testing and quality assurance; programming techniques and tools; software build, release, distribution tools and documentation; configuration management; Grid monitoring tools; mobile computing.

Track5: Computing activities and Computing models

distributed computing aspects with focus on operations; distributed data processing experience, including experience with grids and clouds; workflows and data management in operations; distributed data analysis; experience with production and data challenges; experience with analysis using distributed resources; interactive analysis using distributed resources; monitoring of user jobs and data; global usage and management of resources; data preservation; data curation and long-term data reproducibility.

Track6: Facilities, Infrastructure, Network

hardware and benchmarks; fabric virtualization; fabric management and administration; local (LAN) and wide-area networking (WAN); private networks; collaborative systems: progress in technologies and applications; tele-presence and teleconferencing systems; experience in the use of teleconferencing tools.

Track7: Clouds and virtualization

Cloud, virtual machine, container, volunteer computing technologies; frameworks and tools to exploit these technologies and environments; experiences in managing and using these technologies in production environments.

Track8: Performance increase and optimization exploiting hardware features

CPU/GPU architectures; tightly-coupled systems; GPGPU; hardware and benchmarking; concurrency; vectorization and parallelization; mathematical libraries; foundation and utility libraries; documentation.