

## **Bulletin #1 (July 2011)**



### **Introduction**

Computing in High Energy Physics (CHEP) is a major series of international conferences for physicists and computing professionals from the High Energy and Nuclear Physics community, Computer Science, and Information Technology.

The CHEP conference provides an international forum to exchange information on computing experience and needs for the community, and to review recent, ongoing and future activities. Recent conferences were held in Taipei (Taiwan) in 2010, Prague (Czech Republic) in 2009 and Victoria (Canada) in 2007.

CHEP 2012 is organized by Brookhaven National Laboratory (BNL) and New York University (NYU). There is an International Advisory Committee setting the overall themes of the conference, a Local Organizing Committee in charge of the conference infrastructure and a Program Committee responsible for the content. Details of these can be found at the conference website <http://www.chep2012.org>.

A WLCG workshop will be held at the same venue the weekend before CHEP 2012. WLCG program and registration details will be available in subsequent bulletins.

**Conference** – May 21<sup>st</sup> – 25<sup>th</sup> (Monday – Friday).

**WLCG Workshop** – May 19<sup>th</sup> – 20<sup>th</sup> (Saturday – Sunday).

### **Venue**

The conference will be held at NYU's Skirball Center (plenary sessions) and the nearby Kimmel Center (parallel sessions), located in Greenwich Village in lower Manhattan, NY.

### **Registration**

Online registration will be available on the conference website soon. On-site registration will be possible on Monday morning and each subsequent morning for conference attendees who arrive later in the week.

The registration fee has not yet been determined, but it will include the conference fee, welcome reception, conference banquet, all coffee breaks (Monday – Friday), transportation between hotels not within walking distance of meeting venue and a copy of the conference proceedings. The fee will be announced in the 2<sup>nd</sup> Bulletin, once the online registration system is available.

### **Travel and Lodging**

New York City is located in the northeastern region of the United States and is a major transportation hub to Asia, Europe and South America. The New York metro area is served by two international (John F. Kennedy and Newark Liberty) and one domestic (La Guardia) airports and is also well served with rail and regional bus service. Local transportation options to/from the meeting venue include NY city buses, subways and taxis. More detailed travel information can be found in the conference website.

A variety of lodging choices will be reserved for conference attendees, including affordable NYU dorm rooms and hotel rooms within a wide price range. The Local Organizing Committee (LOC) plans to offer these rooms at special rates, which will also be available for a few days after the conference for those who wish to extend their stay in the NY metro area. More information will be available in the 2<sup>nd</sup> and 3<sup>rd</sup> Bulletins.

## **Social Events**

The LOC will hold a welcome reception at a location near the meeting venue on Monday, May 21<sup>st</sup> and a conference banquet on Thursday, May 24<sup>th</sup>. Entry to both events is included with the conference registration fee. Extra tickets for both events can be purchased online during the registration process for accompanying partners. A limited number of extra tickets will also be available for those who register on-site.

On Wednesday afternoon, sessions will not be held. Attendees will be offered a menu of city tours at special rates. More details will be published in a future Bulletin and on the website.

## **Timetable**

Second Bulletin – October 2011 – Conference registration, Hotel reservations

Third Bulletin – January 2012 – Conference program news, Social program

Fourth Bulletin – April 2012 – Conference Program

## **Important Dates**

Call for abstracts – August 1<sup>st</sup>, 2011

Abstract submission deadline – September 30<sup>th</sup> 2011

Notification of acceptance – December 19<sup>th</sup> 2011

End of early registration – January 31<sup>st</sup> 2012

## **Conference Program**

The scientific program of CHEP 2012 will consist of a plenary session of invited oral presentations, a number of parallel sessions comprising oral and poster presentations, and an industrial exhibition. The plenary session will occupy the five mornings of the conference and the parallel sessions will be held on 3 afternoons. Contributions will be solicited in the form of abstracts and the Program Committee, with the help of the International Advisory Committee, will use these to finalize the program.

The theme of the conference will focus on the processing of HEP data at all stages, from the high level triggers that run on farms of CPUs situated close to the experiment through to the final analyses that use resources distributed worldwide. We expect to draw on the experience from running experiments and also to review the status of new studies of the distributed computing models being made as part of the LHC experimental program. Experts from the computing industry will be invited to give an insight into future technology trends for the underlying computer fabrics, networks and software components.

The list of topics to be covered includes the following:

Online Computing –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 – 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 – 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 reliability, interoperability and security; Evolution and perspective of Grid and Clouds; Experiment specific middleware applications.

Computer facilities, production grids and networking – 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 – 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 – Collaborative systems, progress in technologies and applications; Advanced teleconferencing systems; Experience in the usage of teleconferencing tools.

## **Organization**

### Conference and Scientific Program Committee Chair

Michael Ernst – Brookhaven National Lab

### Local Organizing Committee

John DeStefano, Ognian Novakov, Ofer Rind, Tony Wong – Brookhaven National Lab  
Kyle Cranmer – New York University

### Conference Secretary

Maureen Anderson

## **Contact Information**

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We maintain a mailing list for distributing further information, including the second and subsequent Bulletins. If you received the first bulletin electronically, you are already part of our mailing list. If not, please contact us at [chep2012@bnl.gov](mailto:chep2012@bnl.gov) and ask to be added to this mailing list.