CHEP'07
VICTORIA, BC

Contribution ID: **203**   Type: **oral presentation**

HepData: restructuring the archive for LHC data

Monday 3 September 2007 15:00 (20 minutes)

The Durham HepData database has for many years provided an up-to-date archive of published numerical data from HEP experiments worldwide. In anticipation of the abundance of new data expected from the LHC, the database is undergoing a complete metamorphosis to add new features and improve the scope for use of the database by external applications. The core of the HepData restructuring is the use of a relational database server in place of the legacy hierarchical system, and the use of a Java object model to abstract the database operations into object relationships. Additionally, an XML dialect, HepML, has been developed to describe data records: this provides a rich description of HEP datasets for use by the database migration system and by experiments wishing to submit their own data records. Standard Java persistency systems are used both for the object-relational and object-XML mappings.A new user front end is being developed, using Java Web application technology. This will provide easy user access to HepData's records and flexible output formats, including data comparisons. Furthermore, methods are in development to allow experimental collaborations to input and maintain their own data in a secure way.The re-development of HepData is part of the CEDAR project, which also involves the JetWeb and Rivet event generator tuning systems. HepData's role as a reference source for generator tunings is pivotal to the success of JetWeb and Rivet. In this paper we describe the current status of the development of the new HepData database.

Primary author: Dr WHALLEY, Mike (IPPP, University of Durham)

Co-author: Dr BUCKLEY, Andy (IPPP, University of Durham)

Presenter: MONK, James William (Department of Physics and Astronomy - University College London)

Session Classification: Software components, tools and databases

Track Classification: Software components, tools and databases