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HepData - the HEP data archive reloaded

Content :

The HEPDATA repository is a venerable collection of major HEP results from more than 35 years of particle physics activity. Historically accessed by teletype and remote terminal, the primary interaction mode has for many years been via the HEPDATA website, hosted in Durham, UK. The viability of this system has been limited by a set of legacy software choices, in particular a hierarchical database with no type distinction and no bindings to modern development frameworks.

As part of a large coherent programme of work for Monte Carlo generator validation and tuning, the database and front-ends have been rebuilt using a modern database engine, an automated object-relational Java API, and a high-level approach to Java servlet applications. The data migration process has increased the semantic content of many records and provided a new format for data input, and the API has allowed a much more powerful set of Web interfaces to be developed, including flexible output formatting. This last feature means that HepData can now be used for automatic single-sourcing and synchronisation of data records used for MC validation, and opens the door to a range of wider applications.

Summary :

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