

HepData and JetWeb: HEP Data Archiving and Model Validation

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Accurate modelling of hadron interactions is essential for the precision analysis of data from the LHC. It is therefore imperative that the predictions of Monte Carlo used to model this physics are tested against relevant existing and future measurements. These measurements cover a wide variety of reactions, experimental observables and kinematic regions. To make this process more reliable and easily verifiable, the CEDAR collaboration is developing a set of tools for tuning and validating models of such interactions based on the existing JetWeb automatic event generation system and the HepData data archive.

We describe the work that has been done on the migration to a MySQL relational database of the already long established Durham HepData database, which contains an extensive archive of data cross sections. The new user web-based front end is described. We also discuss plans for direct experiment data entry and verification, and the status of the JetWeb system and its direct interface to HepData allowing concurrent validation over as wide a range of measurements as possible.

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