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Rivet as an Experiment-Theory Interface for the Heavy-Ion Community

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The comparison of experimental data and theoretical predictions is crucial for our understanding of the mechanisms for particle production in hadron collisions at the LHC. The Rivet (Robust Independent Validation of Experiment and Theory) framework was developed to this purpose and is used as a generator-independent system for event generator validation and tuning. It provides a large set of experimental analysis algorithms together with the published data. Thus, Rivet allows a direct comparison of different generators and experimental data, as well as the preservation of the analysis algorithms used.

Originally developed for validation and tuning of models in high energy physics, Rivet does not fulfil the requirements of many of the heavy-ion analyses, which usually require calibration steps, comparisons of AA and pp collisions, and/or binning in global event observables. This contribution will show extensions made to the Rivet framework in order to adapt to the needs of the heavy-ion analyses. We will show a first prototype of the experiment-theory interface for the ALICE experiment, intended to be used by the whole heavy-ion community.

Content type

Experiment

Collaboration

ALICE

Centralised submission by Collaboration

Presenter name already specified

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