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Reweighting NNPDFs.

Tuesday 6 September 2011 16:35 (25 minutes)

I present a method, elaborated within the NNPDF Collaboration, that allows the inclusion of the information contained in new datasets into an existing set of parton distribution functions without the need for refitting. The method exploits bayesian inference in the space of PDF replicas, computing for each replica a chisquare with respect to the new dataset and a weight associated to this. These weights are then applied to the ensemble of parton densities, producing a reweighted set of replicas.

The reweighting method may be used to assess the impact of any new data or pseudodata on parton densities and thus on their predictions.

Primary author: Mr CERUTTI, Francesco (Universitat de Barcelona)

Presenter: Mr CERUTTI, Francesco (Universitat de Barcelona)

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