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HERAFitter - an open source QCD Fit platform

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The proton parton distribution functions (PDFs) are essential for
precision physics at the LHC and other hadron colliders. Their current level of accuracy dominates the theory uncertainties in Higgs production and it
affects substantially theory predictions for Beyond Standard Model high mass production.

We would like to present the first stable release of the HERAFitter
package - an open source project which provides a framework for QCD analyses in
the context of multi-process and multi-experiment settings, bridging the
state-of-the-art theory developments with an appropriate treatment of
the precise experimental measurements.
The HERAFitter program allows determination of the PDFs from the various
measurements of the cross sections at ep, $p\bar{p}$ or pp colliders.
It includes various options for theoretical models and different choices
to account for the experimental uncertainties. Therefore, this project
represents not only an ideal environment for benchmarking studies, but also a support for the QCD interpretation of data analyses within the LHC experiments, as already demonstrated by several publicly available
LHC results using the HERAFitter framework.

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