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W/Z/Higgs Production at LHC and PDF Uncertainties¹ FREDRICK OLNESS, SMU — At the LHC, W and Z boson production will be used as "benchmark" processes to calibrate various searches for the Higgs boson, SUSY, and other "new physics" processes. In the context of the PDF global analysis, we examine current data from HERA, Tevatron, and fixed-targets to properly quantify the PDF uncertainties. This helps us distinguish "new physics" from "old physics," and thereby maximize the discovery potential of the LHC.

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