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## PDF determination and the W mass

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I summarize the state of the art in the determination of parton distribution functions (PDFs). I specifically discuss the determination of the W mass as a test case for the study the impact of the knowledge of PDFs and their uncertainties on precision physics at the LHC. I present prospects of improvement thanks to LHC data in the coming years and I discuss the theoretical, experimental and phenomenological challenges related to their analysis.

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