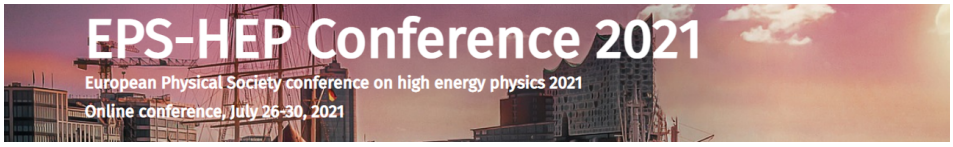

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Impact of correlations on the PDF uncertainty in the W mass measurement

Wednesday 28 July 2021 17:30 (15 minutes)

We present the results of the recent study published in Phys.Rev.Lett. 126 (2021) 4, 041801, where the PDF uncertainty affecting the MW determination at the LHC is estimated keeping into account the full correlations information from the PDF at the level of the differential distribution used to extract M_W, namely p_T^l.

We find that keeping these correlations into account can reduce significantly the PDF uncertainty (once other sources of uncertainties are under control) so that it should not represent a bottleneck in reaching the ultimate precision in the MW determination at hadron colliders.

First author

Emanuele Bagnaschi

Email

emanuele.bagnaschi@psi.ch

Collaboration / Activity

theory

Primary authors: BAGNASCHI, Emanuele (Paul Scherrer Institute (CH)); VICINI, Alessandro (U. Milano)

Presenter: BAGNASCHI, Emanuele (Paul Scherrer Institute (CH))

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