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## Measurement of the W boson mass at LHCb

Monday, 26 July 2021 10:30 (15 minutes)

The LHCb experiment covers the forward region of proton-proton collisions, and it can improve the current electroweak landscape by studying the production of W and Z boson in this phase space complementary to ATLAS and CMS. Several preliminary studies have shown the potential of the LHCb experiment to measure the W boson mass with a muon pT based technique, which could yield a statistical precision of 10 MeV if using the full Run 2 dataset. A proof-of-concept measurement of the W boson mass, using only the 2016 dataset, will be presented.

## **First author**

Stefania Ricciardi

## Email

stefania.ricciardi@stfc.ac.uk

## **Collaboration / Activity**

LHCb

**Presenter:** HUNTER, Ross (The University of Warwick, U.K.) **Session Classification:** T07: Top and Electroweak Physics

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