



Contribution ID: 906

Type: **Parallel session talk**

## Measurement of the W boson mass at LHCb

*Monday, July 26, 2021 10:30 AM (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

**Track Classification:** Top and Electroweak Physics