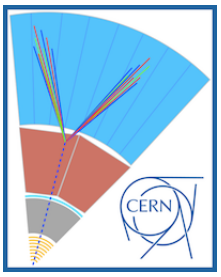

Contribution ID: **13** Type: **not specified**

A new trigger for hadronic showers in the CMS muon system sensitive to particles with large lifetimes (12'+3')

Thursday, November 19, 2020 4:50 PM (15 minutes)

Long-lived particles are predicted in many extensions beyond the standard model. They often have unique signatures in the detector. A particularly interesting model considers long-lived particles decaying hadronically just in front of or inside the CMS muon system. These particles are capable of producing large shower of hits in the muon chambers. Due to bandwidth limitations the current muon trigger is not equipped to detect such showers. We will present expected efficiency and trigger rates for the proposed baseline scenario and outline potential future improvements

Author: DILDICK, Sven (Rice University (US))

Presenter: DILDICK, Sven (Rice University (US))

Session Classification: New ideas