

Phenomenology 2020 Symposium



Contribution ID: 999

Type: **Parallel Talk**

Search for dark sector in CMS

Tuesday 5 May 2020 17:15 (15 minutes)

Several theories predict dark matter to be a part of a larger dark sector of particles and forces. These dark sector particles, such as dark photons, may interact very weakly with standard model particles resulting in several distinct signatures in the high energy pp collision events at the LHC. This talk presents recent results from CMS on dark sector searches using full Run II data collected during 2016-2018. For low-mass dark photon search in dimuon channel, CMS has used novel data scouting technique. Scouting data is useful to perform searches in regions where nominal triggers have reduced or zero sensitivity. This special triggering technique, based on event-size reduction rather than event filtering, will be discussed in this talk.

Summary

Authors: Ms MUKHERJEE, Swagata (Rheinisch Westfaelische Tech. Hoch. (DE)); COLLABORATION, CMS

Presenter: Ms MUKHERJEE, Swagata (Rheinisch Westfaelische Tech. Hoch. (DE))

Session Classification: BSM IV

Track Classification: BSM