



Contribution ID: 219

Type: **Parallel Talk**

New physics results with the CMS Precision Proton Spectrometer

Thursday, 7 July 2022 10:20 (15 minutes)

The Precision Proton Spectrometer (PPS) is a subdetector of CMS introduced for the LHC Run 2, which provides a powerful tool for advancing BSM searches. The talk will discuss the key features of proton reconstruction (PPS alignment and optics calibrations), validation chain with physics data (using exclusive dilepton events), and finally the new results on exclusive diphoton, $t\bar{t}$, $Z+X$, and diboson production explored with PPS will be presented, illustrating the unique sensitivity which can be achieved using proton tagging.

In-person participation

Yes

Primary author: BELLORA, Andrea (Istituto Nazionale di Fisica Nucleare)**Co-author:** MEYER, Arnd**Presenter:** BELLORA, Andrea (Istituto Nazionale di Fisica Nucleare)**Session Classification:** Top quark and EW Physics**Track Classification:** Top quark and EW Physics