

Laboratório de Instrumentação e Física Experimental de Partículas

LIP Seminar

Thursday, 21 January, 11h30

The CMS Precision Proton Spectrometer: Past, Present, and Future Jonathan Hollar (LIP)

The CMS Precision Proton Spectrometer (PPS) project has operated forward proton detectors in the harsh near-beam environment of the LHC since 2016, with a leading contribution by LIP. The physics goals include the study of Electroweak and possible Beyond Standard Model physics in photon-photon interactions, exploiting the unprecedented energies and luminosities offered by the LHC.

In this talk, the physics results obtained with the existing Run 2 LHC data, and the preparations for the upcoming Run 3, are reviewed. Finally, a new upgrade proposal for PPS at the High-Luminosity LHC, scheduled to begin operations in 2027, is presented.

Location: Videoconference - Zoom https://indico.lip.pt/event/847/ Connection details URL: <u>https://videoconf-colibri.zoom.us/j/85994078281</u> PIN: LIPseminar

Or by phone: Dial: +351 308 810 988 (Portugal Toll) or +351 211 202 618 (Portugal Toll) Meeting ID: 859 9407 8281 iPhone one-tap: 308810988,85994078281# or 211202618,85994078281# PIN for phones: 1402137231