

12th Beam Telescopes and Test Beams Workshop



Contribution ID: 69

Type: Talk

LHCb RICH test beam campaigns for future upgrades

Tuesday, April 16, 2024 11:30 AM (20 minutes)

The LHCb experiment is one of the four large detectors at the Large Hadron Collider (LHC) at CERN, performing searches for new physics through studies of CP-violation and rare decays of heavy-flavour hadrons. The RICH (Ring Imaging Cherenkov) sub-detectors assume a critical role in particle identification. At present, intensive test beam campaigns, lead by the RICH group, are actively underway to assess the efficacy of prototypes designed for forthcoming Upgrades.

Upgrade Ib is primarily oriented towards the incorporation of timestamps to Cherenkov photons, aiming to enhance temporal precision. Simultaneously, Upgrade II is dedicated to the exploration of alternative photon detectors. The experimental setup at CERN SPS will be detailed, with a specific emphasis on one of the leading candidates for the role of a photon detector, the Large Area Picosecond Photon Detector (LAPPD), supplied by INCOM (US).

Primary authors: VRAHAS, Constantinos (The University of Edinburgh (GB)); OLIVA, Federica (The University of Edinburgh (GB))

Presenter: VRAHAS, Constantinos (The University of Edinburgh (GB))

Session Classification: Experiments