Contribution ID: **17** Type: **Poster**

MaPMT relative efficiency measurements for the LHCb RICH upgrade

Tuesday, 27 November 2018 18:08 (2 minutes)

The Large Hadron Collider beauty experiment (LHCb) at CERN is aimed to study flavor-physics. The Ring Imaging Cherenkov detector system (RICH), which provides particle identification, have been operating successfully since 2010. During the second Long Shutdown of the LHC of 2019-2020, the RICH detectors will be upgraded to maintain the excellent PID performance at an order of magnitude higher luminosity level. In addition, the detector will be readout at the full LHC bunch frequency of 40MHz using a flexible software based trigger. To cope with that changes the current hybrid photon detectors (HPD) will be replaced by Hamamatsu R13472 multi-anode photomultipliers (MaPMT) with the external brand new frontend electronics. The new photodetectors and the associated electronics have been subjected to calibration procedures. Working voltage identification, relative efficiency measurements of MaPMT pixels and their calibration procedure for the RICH detector system will be presented.

Primary author: BATYRKHANOV, Ayan (Nazarbayev University)

Presenter: BATYRKHANOV, Ayan (Nazarbayev University)

Session Classification: Poster session