

The upgrade and performance of the LHCb RICH detector system

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The LHCb experiment at CERN studies b- and c-hadron decays in the forward region. Physics analyses in LHCb rely on the Ring Imaging Cherenkov (RICH) detector system for the charged hadrons identification in a wide momentum range. The RICH system has provided particle identification with excellent performance during Runs 1 and 2 of LHC and it's currently undergoing a substantial upgrade to deal with the expected five-fold increase of luminosity in Run 3. The upstream RICH optics and mechanics will be improved and the photodetectors will be upgraded by installing multi-anode photomultiplier tubes. In addition, the new readout electronics will allow a 40 MHz continuous data taking. An overview of the RICH expected performance and a summary of the upgrade activities will be presented.

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