

Physics prospects, experimental challenges - LHCb Upgrade 2

The second upgrade of the LHCb detector is planned for the long shutdown 4 of the LHC. In this upgrade, part of the existing spectrometer will be replaced and new tracking detectors allowing for time measurements will be installed. This upgrade will enable the exploitation of the physics potential of the high-luminosity LHC runs. The corresponding data sets will provide heavy flavor results with unprecedented precision as well as significantly increase the sensitivity of BSM searches with displaced vertices. In this talk, the physics goals of Upgrade 2 will be reviewed, as well as the detector design and technology options which will allow for meeting the desired specifications.

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