Contribution ID: **98** Type: **not specified**

LHCb silicon detectors: Run 1 to Run 2 transition, and first experience with Run 2

LHCb is a dedicated experiment to study New Physics in the decays of heavy hadrons at the Large Hadron Collider (LHC) at CERN. The detector includes a high precision tracking system consisting of a silicon-strip vertex detector (VELO) surrounding the pp interaction region, a large-area silicon-strip detector located upstream of a dipole magnet (TT), and three stations of silicon-strip detectors (IT) and straw drift tubes placed downstream (OT). The operational transition of the silicon detectors VELO, TT and IT from LHC Run 1 to Run 2 and first Run 2 experiences will be presented. During the long shutdown of the LHC the silicon detectors have been maintained in a safe state and operated regularly to validate changes in the control infrastructure, new operational procedures, updates to the alarm systems and monitoring software. In addition, there have been some infrastructure related challenges due to maintenance performed in the vicinity of the silicon detectors that will be discussed. The LHCb silicon detectors are well prepared for LHC Run 2 and have already recorded tracks from injection line tests and low energy collisions. The results obtained from analyzing this data and the current status and plans for new operational procedures of the LHCb silicon detectors required in LHC Run 2 will be outlined.

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