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Data Acquisition in Phase II Run of the Belle II Experiment

Thursday 14 June 2018 15:50 (15 minutes)

The Belle II experiment, a next generation experiment in the field of flavor physics, is scheduled to start in 2018. The main purpose of the experiment is to search for physics beyond the standard model with high-precision measurement of B meson decays. The luminosity of SuperKEKB accelerator, an asymmetric electron/positron collider, will be 40 times as much as that of the previous KEKB accelerator and the Level-1 trigger rate is estimated to reach as much as 30 kHz. The readout system of the Belle II experiment receives a large amount of data from different front-end electronics of several sub detectors, process and send data to the back-end system where the online event-rate reduction is performed by a high-level trigger system. After the phase I run for accelerator commissioning without the Belle II detector in 2016, the phase II run is scheduled to start in Feb. 2018, where data from the first beam collision will be taken. In the phase II run, all Belle II sub-detectors are used, while the innermost vertex sub-detectors are partially installed. In this contribution, performance of the Belle II readout system in the first beam run as well as the results of a large-scale performance measurement with dummy data will be reported.

Minioral

Yes

Description

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