

Offline Data Analysis of the Electromagnetic calorimeter trigger system in Belle II experiment

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The main physics motivation of Belle II experiment is to probe the New Physics beyond the Standard Model and precise measurement of CP violation, CKM parameters by heavy quark/lepton flavor decays as well. The SuperKEKB e+e- Collider at KEK in Japan has been started beam collision from 2018 to collect Belle II physics data. The Electromagnetic CaLorimeter (ECL) trigger system was very crucial to operate Belle II trigger/DAQ system in stable during the SuperKEKB luminosity run. In order to check stability of ECL trigger performance, we built an offline data monitoring module called Quality Assurance Monitor (QAM). The ECL trigger QAM module is based on Belle II Analysis Framework (basf2). It mainly analyzes total energy and cluster energy using various High Level Trigger skimmed data. In this report, we describe the performance of the ECL trigger QAM module in detail.

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