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Progress on the Electromagnetic Calorimeter Trigger Simulation at the Belle II Experiment

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The Belle II experiment at KEK in Japan start beam collision from early of 2018 to probe a New Physics beyond the Standard Model by measuring CP violation precisely and rare weak decays of beauty, charm quark and tau lepton. The experiment is performed at the SuperKEKB e+e- collider with 80×10^{34}cm^{-2}s^{-1} as an ultimate instantaneous luminosity. In order to develop and test an appropriate trigger algorithm under much higher luminosity and severe beam background environment than previous KEKB collider, a detail simulation study of the Belle II calorimeter trigger system is very crucial to operate Belle II trigger/DAQ system in stable. We report preliminary results on various trigger logic and efficiencies using physics and beam background events upon the Belle II Geant4-based analysis framework called Basf2.

Minioral

No

Description

Trigger Simulation

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