

# Development of the Level-1 trigger system in BelleII experiment

*Thursday 27 May 2021 05:12 (18 minutes)*

The Level-1 trigger system for the BelleII experiment is designed to select various physics targets under high background environment at the SuperKEKB, energy-asymmetric electron-positron collider. We have developed the FPGA based system to provide the trigger within 4.5 $\mu$ s with the central drift chamber, electromagnetic calorimeter, time-of-propagation detector, muon detectors and their coincidence. The system has been operated for the physics data taking since 2018 and continuously updated to improve the signal efficiency and background rejection. We present the latest status of the level-1 trigger system and its performance during the physics operation.

## TIPP2020 abstract resubmission?

Yes, this would have been presented at TIPP2020.

## Funding information

**Authors:** KOGA, Taichiro; BELLEII LEVEL-1 TRIGGER GROUP

**Presenter:** KOGA, Taichiro

**Session Classification:** Posters: Trigger and DAQ

**Track Classification:** Readout and Data Processing: Readout: Trigger and DAQ