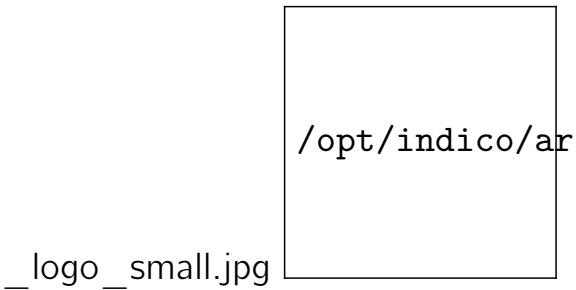


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# Energy and time reconstruction algorithm of Belle II electromagnetic calorimeter

*Tuesday, 28 February 2017 17:00 (1:00)*

## Content

The design luminosity of the SuperKEKB collider in the BelleII experiment at KEK is $8 \times 10^{35}$ $\mathrm{cm}^{-2}\mathrm{s}^{-1}$ or 40 times larger than that of the previous KEKB collider with the Belle detector. Correspondingly, one expects larger beam background. also increased. To keep performance of the electromagnetic calorimeter at the high level, a new readout scheme has been developed and implemented in new detector electronics. The new scheme provides continuous digitization of shaped signal followed by wave form analysis with determination both amplitude and time of the signal. Time allows essential suppressions of background hits. We performed study of hits reconstruction algorithm and developed calibration tools for Belle-II calorimeter using background simulation data and cosmic rays events.

## Summary

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