

Development of sampling calorimeter with segmented lead glass absorber

Thursday 5 October 2017 10:00 (20 minutes)

Sampling calorimeter is indispensable for physics measurement at collider experiment with PFA. Uncertainty of deposit energy at absorber layer degrades energy resolution. This problem will be solved by using lead glass as absorber, which is clear and heavy. High energy particles produce Cherenkov lights whose light yield corresponds to the track length in the lead glass. This information from the absorber will improve the energy resolution of the calorimeter. Performance of this calorimeter prototype tested for electrons at ELPH beam at Tohoku University will be presented. We will discuss the problems and its capabilities.

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Session Classification: Prototypes, upgrades and concepts