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PFA Oriented Scint-ECAL R&D for CEPC

Monday, 25 November 2019 18:00 (20 minutes)

The Circular Electron Position Collider (CEPC) has been proposed as a Higgs or Z factory. Particle flow-oriented electromagnetic (ECAL) and hadronic calorimeters (HCAL) comprise a baseline design of the CEPC calorimetry system. The ECAL consists of alternating tungsten and scintillator layers, with the scintillator bottom-coupled to SiPMs. Advanced studies of the single photon response curves of the SiPM will be presented. New ideas for scintillator-SiPM coupling, have also been studied. Readout electronics based on the SP2B/E design have been prototyped. A two-layer prototype using bottom-coupling has been developed and preliminary cosmic ray test results will be presented.

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