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Development of precision tracking detectors at Fermilab

Thursday 13 June 2024 17:40 (20 minutes)

We will present the latest developments and plans in the Fermilab group on the development of precision tracking detectors for FCC-ee applications. Efforts have been focused on advances towards manufacturing of novel sensors and on the design of sophisticated Application Specific Integrated Circuits (ASICs) required to achieve the ambitious goals of FCC-ee. We will present developments over several directions that aim to advance particle detectors technologies. The talk will cover our developments and plans for Monolithic Active Pixel Sensors for FCC-ee applications in tracking and calorimeters, 3D-integrated sensors and dedicated ASICs, and 4D-tracking sensors. These projects are a result of successful collaborations among many US and international partners, and this collaborative aspects will be also presented.

Primary authors: APRESYAN, Artur (Fermi National Accelerator Lab. (US)); PEÑA, Cristián (Fermi National Accelerator Lab. (US)); BACCHETTA, Nicola (Universita e INFN, Padova (IT)); LIPTON, Ronald (Fermi National Accelerator Lab. (US)); XIE, Si (California Institute of Technology (US))

Presenter: APRESYAN, Artur (Fermi National Accelerator Lab. (US))

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