



Contribution ID: 106

Type: Oral

Integrated CMOS sensor r&d for future colliders

Wednesday, 8 November 2023 11:45 (15 minutes)

We will present a program to establish the first development and manufacturing of HEP-specific sensors monolithically integrated into a standard CMOS process using a US-based foundry. In collaboration with several US universities the project aims to develop Monolithic Active Pixel Sensors (MAPS) designs implemented in the 90 nm technology node, including simple test structures and multi-pixel arrays, and monolithic CMOS sensors with readout integrated circuits, perform detailed characterization of the detector prototypes and quantify their performance for HEP applications.

Early Career

No

Primary authors: APRESYAN, Artur; MILLS, Corrinne (University of Illinois, Chicago); FAHIM, Farah (Fermilab); DI PETRILLO, Karri Folan (University of Chicago); ALYARI, Maral (Fermilab); JONES, Matthew (Purdue University); LIU, Mia (Purdue University); BACHETTA, Nicola (Fermilab); MERKEL, Petra (Fermilab); LIPTON, Ron (Fermilab)

Presenter: BACHETTA, Nicola (Fermilab)

Session Classification: RDC3+4+11

Track Classification: RDC Parallel Sessions: RDC3: Solid State Tracking