



Contribution ID: 40

Type: Contributed e-poster

A 60 μ W front-end for 10 ps resolution monolithic pixel sensors in a 130nm SiGe BiCMOS process

Wednesday, 5 July 2023 16:35 (55 minutes)

This paper introduces a monolithic sensor for detecting ionizing radiation, integrated in a fast and low noise SiGe Bi-CMOS process. The front-end is designed for enhanced timing and low power consumption. The aim is to achieve sub-10 picosecond timing resolution, a significant improvement over the previous prototype, which demonstrated a time resolution of 20 ps. This prototype has been developed in the framework of the MONOLITH H2020 ERC project.

Primary author: PICARDI, Antonio (CERN)