



Contribution ID: 48

Type: not specified

Potential of Monolithic CMOS pixel detectors for future track triggers

Monday 6 March 2017 17:15 (30 minutes)

Monolithic pixel sensors based on commercial CMOS processes offer many features which are important for track trigger applications. Most relevant are the smaller pixel sizes at reduced material and the lower production costs. Industrially produced monolithic pixel sensors are significantly cheaper than standard semiconductor trackers, thus allowing to instrument large areas of tracking detectors with highly granular pixel sensors.

I will discuss the main requirements for track triggers at (future) hadron colliders and explain how these requirements are fulfilled by monolithic pixel sensors. An overview over current hardware activities is given. First simulation results using a design based on large area pixel sensors are presented.

Presenter: SCHOENING, Andre (Ruprecht-Karls-Universitaet Heidelberg (DE))

Track Classification: 7 : Electronic circuits