P1.42: Design of Nupix-A2, a Monolithic Active Pixel sensor for heavy-ion physics

Monday, 26 June 2023 15:32 (1 minute)

A MAPS named Nupix-A2 has been developed in a 130nm High Resistivity CMOS process for particle hit imaging applications. The Nupix-A2 can simultaneously measure particle hits' energy, arrival time, and position. It consists of the pixel array with 128 x 128 pixel array, the digital-to-analog converter (DAC) array and a digital control (DC) module. To adapt to different imaging needs, the Nupix-A2 has two operation modes: full-readout mode and fast-readout mode. This paper will discuss the design and performance of the Nupix-A2.

Primary authors:  Prof. ZHAO, Chengxin (Institute of Modern Physics, Chinese Academy of Sciences); Ms HUANG, Ju (Institute of Modern Physics, Chinese Academy of Sciences); Ms HE, Rui (Institute of Modern Physics, Chinese Academy of Sciences); Mr YIN, Rui (Institute of Modern Physics, Chinese Academy of Sciences); Dr HAN, Weijia (Institute of Modern Physics, Chinese Academy of Sciences); Dr NIU, Xiaoyang (Institute of Modern Physics, Chinese Academy of Sciences)

Presenter: Ms HUANG, Ju (Institute of Modern Physics, Chinese Academy of Sciences)

Session Classification: Poster (incl. coffee)