

11th International "Hiroshima" Symposium on the Development and Application of Semiconductor Tracking Detectors (HSTD11) in conjunction with 2nd Workshop on SOI Pixel Detectors (SOIPIX2017) at OIST, Okinawa, Japan

Contribution ID: 17

Type: ORAL

Advances in pixel electronics for experiments with high rate and radiation

Tuesday, 12 December 2017 11:40 (30 minutes)

Readout chips for the HL-LHC upgrades have to address enormous challenges in terms of data throughput and radiation levels, ionizing and non-ionizing, that harm the sensing and readout parts of pixel detectors alike. Advances in microelectronics and microprocessing technologies now enable large scale detector designs with unprecedented performance in measurement precision (space and time). This presentation will summarize the advances up to this point and expectations for continued development, drawing from the review article currently in the pre-print stage: arxiv 1705.10150.

Primary authors: GARCIA-SCIVERES, Maurice (Lawrence Berkeley National Lab. (US)); WERMES, Norbert (University of Bonn (DE))

Presenter: GARCIA-SCIVERES, Maurice (Lawrence Berkeley National Lab. (US))

Session Classification: Session6

Track Classification: ASICs