

## CPAD Workshop 2022



Contribution ID: 1

Type: **Contribution Talk**

# Nano-CMOS photon imager

*Wednesday, 30 November 2022 14:55 (20 minutes)*

Overview of the “Co-design and integration of nano-sensors on CMOS” project of the Microelectronics Co-Design Research DOE program. This is a 3-year multi-disciplinary development. The aim is to produce a demonstrator device using a pixellated CMOS ASIC as a back end upon which nano-materials are deposited to achieve single photon detection at LN<sub>2</sub> or higher temperature, with high quantum efficiency, low dark counts, and with spectral information for every photon. The concept for this device evolved out of work previously presented at CPAD: <https://agenda.hep.wisc.edu/event/1391/contributions/6971/>

**Primary authors:** NONAKA, Andy (LBNL); TIKHOMIROV, Grigory (UC Berkeley); Dr FRANÇOIS, Léonard (Sandia NL); GARCIA-SCIVERES, Maurice (LBNL); RAJA, Archana (LBNL); PAPADOPOULOU, Katerina (LBNL); YOUNG, Mi (LBNL); MEI, Yuan (LBNL)

**Presenter:** GARCIA-SCIVERES, Maurice (LBNL)

**Session Classification:** WG1: Solid State Detectors and ASICs

**Track Classification:** WG1: Solid State Detectors and ASICs