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CryoCMOS modelling and PDK development for GF 22 FDX

Wednesday, 8 November 2023 16:20 (15 minutes)

Cryogenic Process Design Kits (PDKs) are an indispensable tool in the design of complex integrated circuits across a wide spectrum of applications, from noble element detectors to Quantum Information Science, Superconducting Nanowire Single Photon Detectors (SNSPDs), and precision atomic clocks. The development of PDK-compatible SPICE models is a complex endeavor requiring test structures, measurements, models and fitting. We will present the cryogenic modeling and development of a cryo-PDK for a 22nm FDSOI CMOS process for operation at 3.8 Kelvin.

Early Career

No

Primary authors: BRAGA, Davide (Fermilab); SEIDEL, Olivia (Fermilab)

Presenter: SEIDEL, Olivia (Fermilab)

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