

Radiation-Hard Silicon Photonics – PHOS4BRAIN

S. Cammarata^{1,2}

simone.cammarata@phd.unipi.it

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¹ Dipartimento di Ingegneria dell'Informazione – Università di Pisa, Via G. Caruso 16, Pisa

² Istituto Nazionale di Fisica Nucleare – Sezione di Pisa, L. Pontecorvo 3, Pisa



Silicon Photonics for HEP

- Full-custom photonic IC designed in imec's iSiPP50G technology, funded by PHOS4BRAIN (INFN) and ISHTAR (UniPi) projects
- Focus: **optical modulator design** for high-speed data transmission in HEP experiments
 - ❑ Radiation-hardened MZMs (Grad-range target for TID tolerance)
 - ❑ Traveling-wave Mach-Zehnder modulators
 - ❑ Ring modulators (several variants + WDM)
 - ❑ SiGe electro-absorption modulators

