

Postdoctoral Position in Silicon Nanophotonics and CMOS Photonic Interconnects

A postdoc position is available on an exciting project in silicon photonic integration with CMOS at the University of Colorado-Boulder, with immediate start date. The project entails work on novel device concepts that will enable fundamental advances in energy efficiency of optical on-chip interconnects for computing, including future CPU and memory interfaces. We are bringing about the first family of photonic devices that are integrable in state-of-the-art CMOS and DRAM fabrication processes used in modern microelectronics. The position will include leading an effort on design of photonic and optoelectronic devices on an ambitious joint project within a multi-university team, experimental work on device characterization, and interaction with industry researchers. It will also include mentoring graduate students collaborating in this effort.

The successful candidate will have a strong background in integrated optics/silicon photonics through theoretical design, and modeling (FDTD, Matlab, ...), and/or experimental work. Additional candidate strengths may include a solid foundation in electromagnetism and semiconductor physics, including solid state devices (MOSFETs, BJTs, solar cells, etc.), familiarity with CMOS processes, experience with numerical simulations, and/or experience with multiphysics and technology CAD ("TCAD") tools such as COMSOL and Sentaurus TCAD.

University of Colorado at Boulder is host to a very active research environment in optics. Postdocs are considered research faculty and receive generous benefits.

For more information or to express interest in a position, please see our webpage <http://plab.colorado.edu> and contact Prof. Milos Popovic by email: milos.popovic@colorado.edu.

Keywords: silicon nanophotonics and photonics in state-of-the-art CMOS, microring resonators, modulators, detectors, photonic interconnects.