



## SEMINAR NOTICE

**Thursday 13th September 2018 at 16.00**

**Lecture Room 0B – Building H3 – Campus P.le Europa**

# Integrated Photonic Technologies for Communications and Sensing

**Prof. Jonathan KLAMKIN**

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**Abstract:** This talk will describe developments in integrated photonic technologies at the University of California Santa Barbara with emphasis on silicon photonics, indium phosphide, hybrid integration, and III-V on silicon heteroepitaxy. The 3D hybrid integration technique is based on flip-chip bonding of surface-emitting indium phosphide devices that couple to silicon waveguides through surface grating couplers. III-V on silicon heteroepitaxy instead relies on the growth of direct bandgap materials on silicon and emphasizes defect reduction techniques as well as defect tolerant laser structures. Applications of integrated photonics will also be reviewed especially those that benefit from dramatically reduced system cost, size, weight and power (CSWaP).



Jonathan Klamkin is the Director of the UCSB Nanotech and leads a group conducting pioneering research in integrated photonic technologies. Previously he held positions at MIT Lincoln Laboratory, the Scuola Superiore Sant'Anna, and Boston University. Prof. Klamkin is the recipient of a NASA Early Career Faculty Award and the DARPA Young Faculty Award.