

ECE COLLOQUIUM

Dr. Jelena Vuckovic

Professor

Stanford University

Department of Electrical Engineering
and Applied Physics



Tuesday Jan 29, 2019 @ 12 AM

Photonics Center, Room 901

Light refreshments will be available outside of 901 at 1:15PM

Optimized (Quantum) Photonics

Abstract:

Our inverse design approach offers a powerful tool to implement classical and quantum photonic circuits with superior properties, including robustness to errors in fabrication and temperature, compact footprints, novel functionalities, and high efficiencies.

We illustrate this with a number of demonstrated devices in silicon, diamond, and silicon carbide, including wavelength and polarization splitters and converters, power splitters, grating couplers, on chip laser driven particle accelerators, and efficient quantum emitter-photon interfaces.

Biography:

Jelena Vuckovic (PhD Caltech 2002) is a Professor of Electrical Engineering and by courtesy of Applied Physics at Stanford, where she leads the Nanoscale and Quantum Photonics Lab. She is also the director of the Q-FARM: the Stanford-SLAC Quantum Initiative.

Vuckovic has won numerous prizes including the Humboldt Prize, the Hans Fischer Senior Fellowship, the DARPA Young Faculty Award, the Presidential Early Career Award for Scientists and Engineers, and the Office of Naval Research Young Investigator Award. She is a Fellow of the American Physical Society (APS), of the Optical Society of America (OSA), and of the Institute of Electronics and Electrical Engineers (IEEE).