

# An Evanescent Hybrid Silicon Laser Neuron

Mitchell A. Nahmias, Alexander N. Tait, Bhavin J. Shastri, and Paul R. Prucnal

Lightwave Communications Laboratory, Department of Electrical Engineering, Princeton University, Princeton, NJ 08544, USA  
mnamias@princeton.edu

*Abstract*—**We propose a hybrid silicon laser and photodetector system that can emulate the electro-physiological behavior of a real neuron at ultrafast time-scales. Networks of lasers would**

