NEURAL ENGINEERING SEMINAR SERIES

Micro mechanical devices for high-speed manipulation of light

https://psu.zoom.us/j/92405373420

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12:15 -1:15 p.m. (ET)
W306 Millennium Science Complex

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ABSTRACT:

Communications within and between cells are a complex network from which emerges a wide variety of biological functions. By extracting from these complex interactions the signals relevant to specific phenotypic, genetic, or behavioral changes, we can both understand the underlying mechanisms of these phenomena and identify useful markers for diagnosis, prognosis, and classification of disease states. In this seminar, I will give an overview of how we use these principles in our laboratory to answer critical questions in neurodegenerative disease and aging.

BIOGRAPHY:

Daniel Lopez received his Ph.D. in Physics in 1995 from the Centro Atomico Bariloche in Argentina. Immediately after, he joined IBM T. J. Watson Research Center as a Postdoctoral Fellow, and in 1998, Bell Laboratories (Murray Hill, NJ) as a Research Staff member. In 2008, he moved to Argonne National Laboratory to lead the Nanofabrication and Devices group at the Center for Nanoscale Materials. In 2020, after spending a year at NIST (Gaithersburg) working on quantum packaging for atomic sensors, Dr. Lopez joined Penn State University as a named Professor of EE and Director of their Nanofabrication Lab. During the year 2022, he assembled the Mid-Atlantic Semiconductor Hub (MASH), a consortium of 10 universities across six states that combines resources to meet the need of the semiconductor industry in the U.S. by strengthening and aligning research, manufacturing, and workforce development. He is affiliated with the Microsystems and Nanotechnology Division in the Physical Measurement Lab at the National Institute for Standards and Technologies (NIST) in Gaithersburg, MD.