

The University of New Mexico Student Chapter of the Optical Society of America presents

# **Coherent emission from organic semiconductors under high-voltage pulsed excitation**

**Dr. F. J. Duarte**

Interferometric Optics, Rochester, New York

**Friday, November 3<sup>rd</sup>, at 12:00 noon**

**Center for High Technology Materials, Room 101**

A light lunch will be served at the talk.

The search for electrically excited organic lasers has a long history. Besides a broad historical introduction of the subject we'll review the power output characteristics, tunability, and laser linewidth performance of relevant optically-excited organic lasers. The talk will then focus on discussing recent published experiments that demonstrated coherent emission from organic semiconductors under direct high-voltage excitation. The interferometric data will be compared with published interferograms from the laser literature. Further, we'll examine output power versus excitation current density and will interpret its significance in the context of known laser behavior.

Biography of the speaker:

Dr. Duarte is a research physicist, with Interferometric Optics, based in Rochester, New York. He graduated with First Class Honours in physics from Macquarie University (Sydney, Australia) where he was also awarded a Ph.D. in physics for his research on optically-pumped molecular lasers. His career history includes appointments with the Eastman Kodak Research Laboratories, the US Army Aviation and Missile Command, The University of Alabama, and The University of New South Wales. He has also held honorary appointments at Macquarie University and The University of New Mexico. He has served as Topical Editor for Applied Optics (1990-1996), Advisory Editor for Optics & Photonics News (2001-2003), and Advisory Editor for Optics Letters (1999-2004). Dr. Duarte received the Engineering Excellence Award from the Optical Society of America, is a Fellow of the Australian Institute of Physics, and a Fellow of the Optical Society of America.

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