

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

Optoelectronics Related Research at the Air Force Research Lab

Dr. Dan H. Huang

Space Vehicles Directorate, Air Force Research Lab at Phillips Site

Wednesday, October 20th, at 1 PM

Center for High Technology Materials, Room 101

A light lunch will be served.

Some very recent research related to optoelectronics in photodetectors will be presented and the physics behind these research results will be elucidated. Many research achievements will be introduced with respect to our three labs: semiconductor detector studies, magnetic-effects in semiconductor heterostructures, and optical interactions in semiconductors. The new physics found includes non-adiabatic sequential transport of carriers, space-charge-field and field-domain effects, suppression of elastic scattering, inelastic phonon scattering and drag effects in double quantum wires, hot-carrier transport under strong fields, electromagnetically-induced transparency in quantum wells, laser damage and laser cooling of semiconductors. We will conclude by presenting a few other research topics we plan to study in the near future.

<http://www.unm.edu/osa>