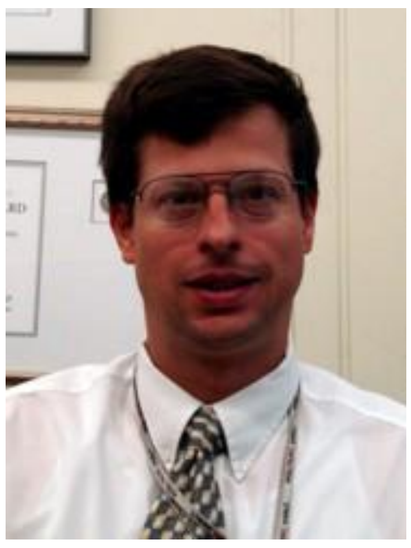
# CSE Colloquium

## 11am Tuesday, Jan. 31, 2012

## 205 Y-Wing Auditorium

## "Modeling Various Optical Spectra Throughout the Electromagnetic Spectrum"

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Thanks to the research results of many over the decades, the ability to predict excitation spectra, optical properties and related phenomena in materials has evolved to a reasonably impressive level. In this talk, several examples of results shall be presented, including (1.) valence excitation spectra, (2.) spatial-dispersion-induced birefringence in materials of cubic symmetry, (3.) the ability to sense material composition and/or crystal structure from the near-edge core excitation spectra, as well as (4.) computation of multiple-phonon absorption features in diamond- and zincblende-structure semiconductors.