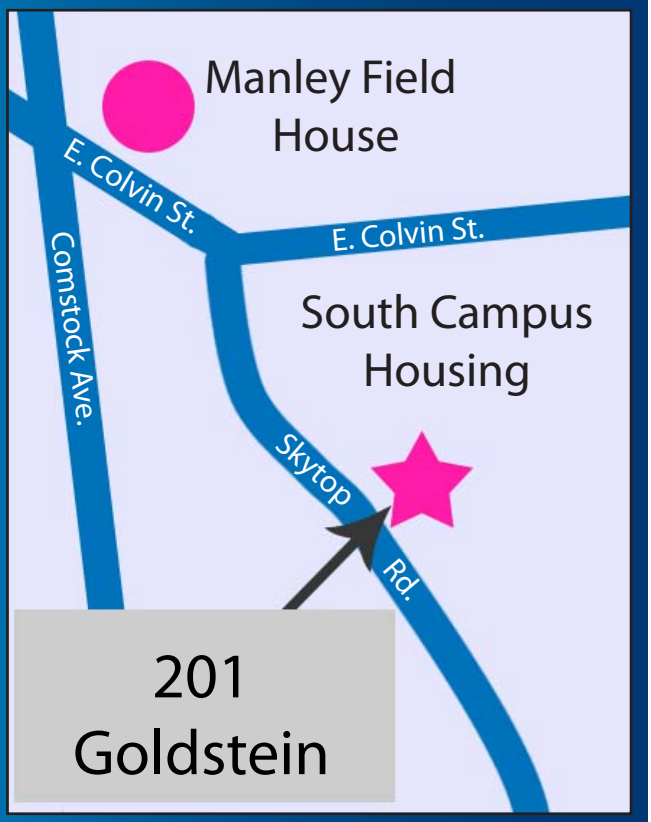
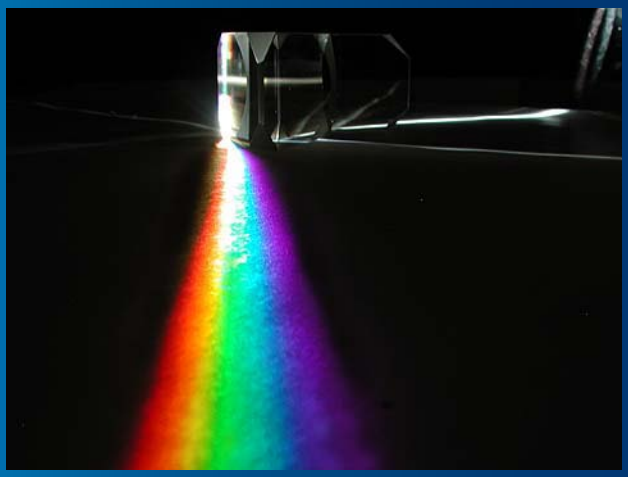
Tuesday, November 27
6 p.m.
Syracuse University
Goldstein Student Center
Room 201

Refreshments will be served.





Pulse Propagation Through Dispersive Material: From the Beginning

Dr. Natalie Cartwright
State University of New York at New Paltz
New Paltz, NY

About the presentation

Dispersive materials are those in which the dielectric permittivity is a function of frequency. The requirement of causality enforces a special relation between the real and imaginary parts of this frequency-dependent dielectric permittivity. Thus, when an electromagnetic pulse travels through a dispersive material, each frequency component of the pulse experiences both amplitude and phase changes, and each at its own rate. It is difficult, if not impossible, to provide a mathematical expression for the propagated pulse that accurately describes all of these amplitude and phase changes. Instead, approximations are made. This talk will begin with an introduction to dispersive material, causality, and causal models of dielectric permittivity. Attention will then be given to popular approximation methods and their solutions.

For more information, visit our website at:
http://www.ewh.ieee.org/r1/syracuse/mtt-ap/mttap.htm
or contact Michael Enders at: menders@ieee.org

This event is organized by the Syracuse Chapter of the AP/MTT/EMC Societies of the IEEE. Additional support provided by CASE and the L.C. Smith College of Engineering at Syracuse University.