

**Department of Mathematical Sciences  
Colloquium**

**JICHUN LI**

University of Nevada at Las Vegas

*Finite Element Analysis for Time-Dependent  
Maxwell's Equations in Complex Media*

In this talk, we will discuss time-dependent Maxwell's equations in dispersive media on a bounded three-dimensional domain. Both standard and mixed finite element methods will be developed and error estimates will be provided for both semi- and fully-discrete schemes. Three most popular dispersive media models (cold plasma, one-pole Debye medium and two-pole Lorentz medium) will be discussed. Some preliminary numerical results will be presented also.

**Friday, December 1, 2006 at 3 pm in Bell Hall 143  
The University of Texas at El Paso**

Refreshments will be served in front of the colloquium room, 15 minutes before the start of the colloquium.

For further information, please contact Dr. Pavel Šolín, Bell Hall 220. Phone: (915) 747-6770, email: [solin@utep.edu](mailto:solin@utep.edu).