

## Schuler, Timothy M

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**From:** Diebold, Ulrike  
**Sent:** Friday, November 06, 2009 9:10 AM  
**To:** Diebold, Ulrike  
**Subject:** Physics Colloquium, Tue Nov 10, 3:20 pm

### *Colloquium*

Department of Physics and Engineering Physics  
Tuesday, November 10, 2009  
Boggs 242  
3:20 pm

### **Quantum Chaos: From Electron Waves to Rogue Ocean Waves to Microwaves**

Lev Kaplan  
Department of Physics and Engineering Physics  
Tulane University

Our research has focused on imaging, manipulation, and spectroscopy at the Quantum chaos is the study of complex quantum or classical wave systems. In such systems, analytic solutions for the wave evolution generally do not exist, and statistical methods must be used instead. Applications range from atomic and nuclear phenomena in quantum physics to acoustics and optics in classical physics. We will focus on three related applications at three very different length scales: (i) branched flow of electrons in nanostructures with weak disorder, (ii) scattering of microwaves in a cavity, and (iii) rogue waves in the ocean.

See also the news story posted here:

<http://tulane.edu/news/newwave/rogue-waves.cfm>