

Seminar on  
**MODERN OPTICS AND  
SPECTROSCOPY**

**Spring 2011**

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March 1 Barry Masters, MIT  
Resonance energy transfer theories: from experiments to classical theory to quantum mechanical theories

March 8 Lukas Novotny, University of Rochester  
**Optical antennas for enhanced light-matter interactions**

March 15 Ruth Signorell, University of British Columbia  
**Understanding aerosols on a molecular level**

**March 22** *20th Annual Richard C. Lord Lecture:*  
Stefan Hell, University of Gottingen, Germany  
**Nanoscopy with focused light**

March 29 **Lisa Marshall, MIT**  
Probing submillisecond dynamics in the fluorescence spectra of single semiconductor nanocrystals

April 5 Craig Taatjes, Sandia National Laboratory, Livermore  
**Laser and synchrotron investigations of fundamental combustion chemistry**

April 19 Jeff Gore, MIT  
**Games that microbes play: the game theory behind cooperation and conflict in microbial populations**

April 26 **Xiaotin Jia, MIT**  
**Characterization of graphene nanoribbons and graphene edges by Raman Spectroscopy and TEM**

May 3 Oleg Andreev, University of Rhode Island  
The pH low insertion peptides (pHLIPs): mechanism of insertion and medical applications

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**Tuesdays, 12:00 - 1:00 p.m., Grier Room (34-401)**

Refreshments served following the seminar

Sponsored by the George R. Harrison Spectroscopy Laboratory, Department of Electrical Engineering and Computer Science and School of Science, MIT.