

PROGRAM

**GORDON RESEARCH CONFERENCE
PLASMONICS**

July 23-28, 2006
Keene State College
Keene, NH, USA

ALBERT POLMAN (FOM-Institute AMOLF), CHAIR
HARRY ATWATER (California Institute of Technology), VICE CHAIR

SUNDAY

2:00 pm - 9:00 pm Arrival and check-in

6:00 pm Dinner

Plasmonics Opening Session

Discussion Leaders:

Albert Polman (FOM-Institute AMOLF) and **Harry Atwater** (CALTECH)

7:30 pm - 8:15 pm **Eli Yablonovitch** (UCLA)
'What is the Smallest Volume into which Light can be Focussed?'

8:15 pm - 8:30 pm Discussion

8:30 pm - 9:30 pm **Discussion: Challenges in Plasmonics - Formulation of 10 Key Questions**

MONDAY

7:30 am - 8:30 am Breakfast

Planar Surface Plasmon Polariton Structures

Discussion Leader: **Nader Engheta** (University of Pennsylvania)

9:00 am - 9:35 am **Sergey Bolzhevolnyi** (Aalborg University)
'Long-Range Surface Plasmon Slot Waveguides'

9:35 am - 9:45 am Discussion

9:45 am - 10:20 am **Alain Dereux** (University of Bourgogne)
'SPP Modes and Dispersion in Guided Wave Structures'

10:20 am - 10:30 am Discussion

10:30 am Coffee Break

11:00 am - 11:35 am **Mark Brongersma** (Stanford University)
'Near-field Imaging of SPP Modes using Photon STM'

11:35 am - 11:45 am Discussion

11:45 am - 12:20 pm **Han Woerdman** (Leiden University)
'Plasmonics: Classical or Quantum?'

12:20 pm - 12:30 pm Discussion

12:30 pm Lunch
 1:30 pm - 4:00 pm Free Time
 4:00 pm - 6:00 pm **Poster Session**
 6:00 pm Dinner

Plasmonic Nanostructures I

Discussion Leader: **David A.B. Miller** (Stanford University)

7:30 pm - 8:00 pm **Naomi Halas** (Rice University)
 'Plasmonic Nanostructures: artificial molecules enabling nanoscale spectroscopies and nanophotonics-based biomedical applications'.
 8:00 pm - 8:10 pm Discussion
 8:10 pm - 8:40 pm **Amanda Haes** (Naval Research Laboratory)
 'Size and Shape Effects on Plasmon Resonances'
 8:40 pm - 8:50 pm Discussion
 8:50 pm - 9:20 pm **Peter Nordlander** (Rice University)
 'Plasmons and Electronic Structure Theory'
 9:20 pm - 9:30 pm Discussion

TUESDAY

7:30 am - 8:30 am Breakfast

Plasmonic Nanostructures II

Discussion Leader: **Fritz Keilmann** (Max Planck Institute for Biochemie)

9:00 am - 9:35 am **Mark Stockman** (Georgia State University)
 'Spasers, Tapers and Hot Spots'
 9:35 am - 9:45 am Discussion
 9:45 am - 10:20 am **Javier Garcia de Abajo** (Consejo Superior de Investigaciones Cientificas, San Sebastian)
 'Cathodoluminescence as a probe of plasmonic structures'
 10:20 am - 10:30 am Discussion
 10:30 am - 11:00 am Coffee Break
 11:00 am - 11:35 am **Gary Wiederrecht** (Argonne National Laboratory)
 'Imaging and Spectroscopy of Plasmonic Nanostructures'
 11:35 am - 11:45 am Discussion
 11:45 am - 12:20 pm **Paul Alivisatos** (Berkeley University)
 'Field Enhancements in Nanoparticle Assemblies'
 12:20 am - 12:30 pm Discussion

12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	Poster Session
6:00 pm	Dinner
	THz Plasmons, Phonons and lasers Discussion Leader: Stefan Maier (University of Bath)
7:30 pm - 8:00 pm	Federico Capasso (Harvard University) 'Near-Field Laser Antenna's'
8:00 pm - 8:10 pm	Discussion
8:10 pm - 8:40 pm	Gennady Shvets (University of Texas) 'Phonon Polariton Resonance Structures'
8:40 pm - 8:50 pm	Discussion
8:50 pm - 9:20 pm	Rainer Hillenbrand (Max Planck Insitute for Biochemie) 'Phonon Polariton Excitations'
9:20 pm - 9:30 pm	Discussion

WEDNESDAY

7:30 am - 8:30 am	Breakfast
	Active Plasmonic Structures and Devices Discussion Leader: Jelena Vuckovic (Stanford University)
9:00 am - 9:35 am	Satoshi Kawata (Osaka University) 'Plasmon Laser Structures'
9:35 am - 9:45 am	Discussion
9:45 am - 10.20 am	Axel Scherer (California Institute of Technology) 'Plasmon LEDs'
10:20 am - 10:30 am	Discussion
10:30 am - 11:00 am	Coffee Break
11:00 am - 11:35 am	Teri Odom (Northwestern University) 'Large-area subwavelength hole arrays'
11:35 am - 11:45 am	Discussion
11:45 am -12:20 pm	Marin Soljatic (Massachusetts Institute of Technology) 'Plasmonic Dispersion and Thermal Emission'
12:20 pm - 12:30 pm	Discussion
12:30 pm	Lunch

1:30 pm - 6:00 pm	Free Time
6:00 pm	Dinner
7:00 pm - 7:30 pm	Business Meeting
	(Nominations for the next Vice Chair; Fill out Conference Evaluation Forms; Discuss future Site & Scheduling preferences; Election of the next Vice Chair)
	Ultramicroscopy
	Discussion Leader: Pieter Kik (University of Central Florida)
7:30 pm - 8:00 pm	Kobus Kuipers (FOM-Institute AMOLF) 'Near-field Imaging of Pulse Dynamics in Plasmonic Structures'
8:00 pm - 8:10 pm	Discussion
8:10 pm - 8:40 pm	Vahid Sandoghdar (ETH, Zurich) 'Near Field Microscopy of Metal Nanostructures'
8:40 pm - 8:50 pm	Discussion
8:50 pm - 9:20 pm	Xiang Zhang (University of California, Berkeley) 'Superlensing'
9:20 pm - 9:30 pm	Discussion

THURSDAY

7:30 am - 8:30 am	Breakfast
	Plasmonic Nanostructures III: Holes and Arrays
	Discussion Leader: William Barnes (University of Exeter)
9:00 am - 9:35 am	David R. Smith (Duke University) 'Microwave and Optical Negative Index Meta-materials'
9:35 am - 9:45 am	Discussion
9:45 am - 10:20 am	Vladimir Shalaev (Purdue University) 'Metamaterials - Going Optical'
10:20 am - 10:30 am	Discussion
10:30 am - 11:00 am	Coffee Break
11:00 am - 11:35 am	Henri Lezec (CNRS/Caltech) 'Transmission in Hole Arrays'
11:35 am - 11:45 am	Discussion
11:45 am - 12:20 pm	Francisco Garcia Vidal (University of Madrid) 'How light emerges from an illuminated array of sub-wavelength holes'
12:20 pm - 12:30 pm	Discussion

12:30 pm	Lunch
1:30 pm - 4:00 pm	Free Time
4:00 pm - 6:00 pm	Poster Session
6:00 pm	Dinner
	Frontiers of Plasmonics Discussion Leaders: Albert Polman (FOM-Institute AMOLF) and Harry Atwater (CALTECH)
7:30 pm - 9:00 pm	Late News speakers
9:00 pm - 9:30 pm	Discussion: Challenges in Plasmonics: Answers to Key Questions

FRIDAY

7:30 am - 8:30 am	Breakfast
9:00 am	Departure