

WORKSHOP 'PASSION FOR PHOTONS': PROGRAM

WEDNESDAY SEPTEMBER 29

09:00-09:45 KEYNOTE PASSION FOR PHOTONS
Prof. Naomi Halas (Rice University, Houston, USA)
"Plasmonics: nanoscale manipulation of light"

NANOANTENNAS

09:50-10:20 Prof. Lukas Novotny (University of Rochester, USA)
"Nonlinear plasmonics with optical antennas"

10:20-10:50 Dr. Garnett Bryant (NIST, Gaithersburg, USA)
"Photonics with nanohybrids"

10:50-11:10 Francesco De Angelis (Italian Institute for Technology, Genova, Italy)
"Plasmon polariton nanotantenna for single molecule detection"

COFFEE BREAK

11:30-12:15 KEYNOTE PASSION FOR SOFT MATTER
Prof. Dieter Richter (Forschungszentrum Jülich, Germany)
"Soft Matter and Live Science: Research with Neutrons"

CONCEPTS in OPTICS

12:20-12:50 Prof. Sir J. Pendry (Imperial College, London, UK)
"Transformation Optics at Optical Frequencies"

12:50-13:20 Prof. Shiwu Gao (University of Goteborg, Göteborg, Sweden)
"Insights on surface plasmons from quantum mechanics"

13:20-13:40 Antonio García-Martín (Inst. de Microelectrónica de Madrid.CSIC Spain)
"Active magnetoplasmonics in hybrid metal/ferromagnet/metal microinterferometers"

LUNCH BREAK

15:00-17:00 POSTER SESSION

THURSDAY SEPTEMBER 30

09:00-09:45 KEYNOTE PASSION FOR INTERFACES

Prof. Fernando Flores (UAM, Madrid, Spain)

"Organic and inorganic semiconductor interfaces across physics, chemistry and time"

ELECTRONS AND PHOTONS

09:50-10:20 Prof. Archie Howie (University of Cambridge, UK)

"Photons and electrons: Tightening their embrace"

10:20-10:50 Prof. F.J. García de Abajo (Institute of Optics CSIC, Madrid, Spain)

"Photons and electrons team up"

10:50-11:10 Dr. Alejandro Reyes Coronado (IESL-FORTH, Heraklion, Greece)

"Plasmonic forces induced by electrons"

COFFEE BREAK

COHERENCE AND FAST CONTROL

11:40-12:10 Prof. Peter Nordlander (Rice University, UK)

"Fano resonances in plasmonic nanostructures"

12:10-12:40 Prof. Mark Stockman (Georgia State University, Atlanta, USA)

"Trends in Nanoplasmonics: Ultrasmall, Ultrafast, Ultrastrong"

12:40-13:00 Dr. Otto Muskens (University of Southampton, UK)

"Active plasmonic nanoantennas for optical switching"

13:00-13:20 Dr. Ricardo Sapienza (ICFO, Barcelona, Spain)

"LDOS fluctuations probed by single-molecule spectroscopy in random and periodic media"

LUNCH BREAK

TAKING ADVANTAGE OF THE NEAR_FIELD

15:00-15:30 Dr. Rainer Hillenbrand (nanoGUNE, San Sebastian, Spain)

"scattering-type Scanning Near-Field Optical Microscopy"

15:30-15:50 Dr. Riedel Damien (Nanophysics Lab. CNRS, Orsay, France)

"A scanning tunneling microscope as a tunable nanoantenna for atomic scale control of optical-field enhancement"

15:50-16:10 Dr. M.L. Juan (ICFO, Barcelona, Spain)

"Self-induced back-action optical trapping"

16:10-16:30 Dr. Amador Menéndez (Instituto tecnológico de Materiales de Asturias, Spain)

"Improving the efficiency of luminescent solar concentrators"

FRIDAY OCTOBER 1: MORNING SESSION

THEORY

- 9:00-9:30 Prof. Nader Engheta (University of Pennsylvania, USA)**
"From Electronics to Metatronics to Graphene Metamaterials"
- 9:30-10:00 Prof. F. J. García Vidal (Universidad autónoma de Madrid, Spain)**
"Controlling the flow of surface plasmons"
- 10:00-10:30 Prof. Juan José Sáenz (Universidad autónoma de Madrid, Spain)**
"Resonant optical forces on metallic and dielectric nanoparticles"
- 10:30-10:50 Prof. Fernando Moreno (Universidad de Cantabria, Santander, Spain)**
"Electromagnetic interactions between plasmon nanostructures and substrates"

COFFEE BREAK

PLASMON-BIONANOSENSE (ESF SPONSORED SESSION)

- 11:15-11:45 Dr. Romain Quidant (ICFO, Barcelona, Spain)**
"Plasmon nano-optics: designing novel nanotools for Biosciences and Medicine"
- 11:45-12:15 Prof. Mikael Kall (Chalmers University of Technology, Sweden)**
"Nanoplasmonic sensing: refractive index, SERS and optical forces"
- 12:15-12:35 Prof. J.R. Krenn (University of Graz, Austria)**
"Plasmonic control of elementary emitters"
- 12:35-12:55 Dr. Jaime Gómez Rivas (AMOLF, The Netherlands)**
"Collective plasmonic resonances in arrays of nanoantennas"
- 12:55-13:15 Prof. Luis Martín-Moreno (Inst. de Ciencia de Mat. de Aragón, Spain)**
"Extraordinary optical transmission due to strongly localized modes"
- 13:15-13:35 Alberto Curto (ICFO- Barcelona, Spain)**
"A nano-optical Yagi-Uda antenna driven by a quantum dot"

LUNCH BREAK (SPONSORED BY ESF)

FRIDAY OCTOBER 1: AFTERNOON SESSION

PLASMON BIO-NANOSENSE (ESF SPONSORED SESSION)

- 15:00-15:30 Prof. Stefan Maier (Imperial College, London, UK)**
"Correlative electron and optical spectroscopies of metallic nanostructures and applications in nanometrology"
- 15:30-15:50 Dr. Andrea Csáki (IPHT, Jena, Germany)**
"Plasmonic-tuned microstructured optical fibers for localized surface plasmon resonance (LSPR) sensing"
- 15:50-16:10 Bjoern Niesen (IMEC vzw, Leuven, Belgium)**
"Interactions of excitons with localized surface plasmons in organic semiconductor-metal nanoparticle thin-films"
- 16:10-16:30 Antonio Fernández (Imperial College, London, UK)**
"Kissing spheres: broadband response and superfocusing properties"
- 16:30-16:05 CONCLUDING REMARKS & FAREWELL**