

WG2 AND WG3 NQO WORKSHOP

Campus Saint-Charles | Place Victor Hugo | Marseille



Monday 30th of May 2016

8:30 Registration | 8:30 Introduction

Morning

WG3 "Quantum Nano Optics: quantum coherence at the nanoscale"

- 9:00 *Brana Jelenkovic, Univ. Belgrade*, Four way mixing in hot potassium vapor - slow light with a gain, and intensity squeezing of probe and conjugate. J.
- 9:30 *Helena Dimitrijevic, Univ. Belgrade*, Detecting atoms position within wavelength distance via Zeeman coherences.
- 10:30 *Niek F. van Hulst, ICFO Barcelona*, Coherent feedback control of optical antennas and single photon emitters.
- 11:00 *Jerome Wenger, Institut Fresnel Marseille*, Enhanced dipole-dipole energy transfer in plasmonic nanogap antenna.
- 11:30 *Xavier Zambrana-Puyalto, Institut Fresnel Marseille*, Purcell factor and chirality control at the nanoscale.

Afternoon

WG3 "Quantum Nano Optics: quantum coherence at the nanoscale"

- 14:00 *Irene d'Amico, Univ. of York*, Dynamics of topologically protected states in spin chains.
- 14:30 *Animesh Datta, Warwick Univ. UK*, Efficient energy transfer in quantum molecular networks.
- 15:00 *Evelyne Salançon, Lumny Marseille*, Electron point source: A study of the wave coherence with a low energy electron projection holographic microscope.
- 15:30 *Erich Runge, Technische Universität Ilmenau Germany*, Long-lived modes in nano-porous gold sponges.

16:30

Yearly Internal meeting work group 3: Quantum Coherence at the Nanoscale

REGISTRATION

<http://www.fresnel.fr/COST2016/>
<http://www.fresnel.fr/GDR2016/>
<http://www.fresnel.fr/FQXI2016/>

Tuesday 31st of May 2016

Morning

WG2 "Quantum Nano Optics: ultrafast nanooptics"

- 9:00 *Javier Aizpurua, Center for Materials Physics in San Sebastian Spain*, Quantum approaches to electrons and photons in nonlinear and active nanoplasmonics.
- 9:30 *Paivi Torma, Aalto Univ. Finland*, Towards quantum fluids in plasmonic systems; strong coupling studies.
- 10:30 *François Marquier, Laboratoire Charles Fabry Paris*, Quantum optics with surface plasmons.
- 11:00 *Walter Pfeiffer, Univ. of Bielefeld Germany*, Long-range cavity-assisted coherent energy transfer between plasmonic nanoantennas.
- 11:30 *Martti Kauranen, Tampere University of Technology Finland*, Tailoring nonlinear optical responses of plasmonic metasurfaces.
- 12:00 **Gender balance 1.** TBA, *Ruth Oulton, University of Bristol, U.K.*

Afternoon

WG2 "Quantum Nano Optics: ultrafast nanooptics"

- 14:00 **Gender balance 2.** TBA, *Ruth Oulton, University of Bristol, U.K.*
- 15:00 *Pierre-François Brevet, Univ. Claude Bernard Lyon*, Nonlinear Optics with Single Metallic Nanoparticles: Fundamentals and Applications.
- 15:30 *Anatoly Zayats, King's college London*, Ultrafast Nonlinear Plasmonics.

16:30

Yearly Internal meeting work group 2: Ultrafast Nanooptics

Wednesday 1st of June 2016

Morning

Joint COST-FQXI workshop

- 9:00 *Tobias Brixner, Univ. of Wuerzburg Germany*, Coherent multi-dimensional space-time-resolved spectroscopy.
- 9:30 *Sébastien Bidault, Paris Tech.*, Picosecond radiative lifetimes from bright single-photon emitting nanostructures at room temperature.
- 10:30 *Andre Stefanov, Univ. Berne Switzerland*, Broadband energy-entangled photon for high resolution temporal sensing and spectroscopy.
- 11:00 *Bilge Can Yildiz, Middle East Technical University, Ankara, Turkey*, All-plasmonic enhancement of second harmonic generation via interference of conversion paths.
- 11:30 *Aurelien Drezet, Institut Néel Grenoble France*, Quantum plasmonics using near-field optical microscope.

Afternoon

Joint COST-FQXI workshop

- 14:00 *Thomas Durt, Institut Fresnel-Ecole Centrale de Marseille*, Quantum coherence at the nano and mesoscale, and non-linear modifications of Schroedinger equation.
- 14:30 *Mohamed E. Yahia, International University of Sarajevo (IUS)*, Rogue waves lead to the instability in GaN semiconductors.
- 15:30 *Stéphane Barland, INLN, Nice, France*, Particle-like behavior of light in semiconductor lasers.
- 16:30 *Romain Quidant, ICFO Barcelona*, Nano-Optomechanics with a levitated nanoparticles.

FQXI



Parallel joint WG2-GDR session

- 13:30 *Alex Baron, CRRP*, Nonlinear Optics with surface plasmons and metamaterials.
- 14:00 *Nicolas Chauvet, Institut Néel*, Nonlinear optics in double resonant hybrid plasmonic nanoantenna structures.
- 14:30 *Jérémy Butet, EPFL*, SHG from plasmonic nanostructures and metasurfaces: How to design the nonlinear conversion at the nanoscale?
- 15:30 *Erik Dujardin, CEMES*, Modal engineering in plasmonic crystalline colloidal systems
- 16:00 *I. V. Smetanin, Lebedev Physical Institute, Russia*, Nanoresonator - novel concept of optical nanoantenna excitation through the dissipative instability of DC electric current
- 16:30 *A. V. Uskov, Lebedev Physical Institute and ITMO University, Russia*, Nanoscale contact as a source of plasmons for plasmonic nanocircuits.

17:00 Talk Grand Public

Emmanuel Fort Institut Langevin Paris (conférence publique)

"Dualité onde-corpuscule à l'oeil nu"

Social event: cocktail, together with participants to parallel workshops (GDR ONDES, FQXI workshop and LIA ALPhFA)