

MNO2023

INTERNATIONAL WORKSHOP
ON METALLIC NANO-OBJECTS

19 | 21 SEPTEMBRE 2023 UNIVERSITÉ DE TECHNOLOGIE DE TROYES | FRANCE

Program

Tuesday 19th September 2023

8.30 – 8.50	Welcome and registration
8.50 – 9.05	Opening talk – Anne-Laure BAUDRION
Session 1 – Novel materials, synthesis and technologies for Plasmonics – Chair:	
9.05 – 9.50	Emilie RINGE – Cambridge University (GB) <i>Magnesium Nanoplasmonics</i>
9.50 – 10.10	Pham Quang Truong – Direct creation of gold nanoparticles inside a polymer matrix
10.10 – 10.30	Suzanna AKIL – Tunable Photoemission and Photocatalytic Activity of Au-ZnO Nanostructures
10.30 – 10.50	Vladimir LESNYAK – Semiconductor Nanoparticles with Metallic Properties
10.50 – 11.10	Coffee break
11.10 – 11.55	Guillaume VIAU – LPCNO, INSA Toulouse (FR)
11.55 – 12.15	Vladimir LOMONOSOV – Synthetic approaches to colloidal Mg nanoparticles
12.15 – 12.35	Alfred J. MEIXNER – Direct Laser-Induced Gold Printing of 2D Structures and Electronic Devices
12.35 – 13.30	Lunch (M104 room)
Session 2 – Ultrafast and nonlinear plasmonics – Chair:	
13.30 – 14.15	Nicolo MACCAFERRI – Umea University (SE) <i>Ultrafast nanophotonics: from metamaterial-based all-optical switching to plasmon-driven polaritonic chemistry</i>
14.15 – 14.35	Silvia ROTTA LORIA – Disentangling the ultrafast optical response of Titanium Nitride: from films to nanoantennas
14.35 – 14.55	Bruno PALPANT – Ultrafast plasmonics for the generation of reactive oxygen species in biomedical applications
14.55 – 15.15	Augustin VERNEUIL – Optimized second harmonic extraction from a plasmonic meta-array
15.15 – 15.35	Agostino DI FRANCESCANTONIO – Dual-pump coherent control of the nonlinear emission by a plasmonic nanoantenna
15.35 – 15.55	Coffee break
Session 3 – Sensors and bio-plasmonics	
15.55 – 16.40	Valérie MARCHI – Institut des Sciences Chimiques de Rennes – UMR CNRS 6226 (FR) <i>Peptidic bioactivable AuNCs for bio-imaging and sensing</i>
16.40 – 17.00	Aurélien BRUYANT – Applications of ultra-compact, phase-sensitive SPR device
17.00 – 17.20	Claudia Corti – Hybrid gold-DNA origami nanostructures for colorimetric sensing
17.20 – 17.40	Mathieu EDELY – Observation of DNA strand interaction with SERS
19.30 – 23.00	Opening Gala cocktail at “Cellier Saint Pierre” – Confrérie de la Prunelle de Troyes

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Session 4 – Metasurfaces, structural colors and nanophotonics – Chair:

9.00 – 9.45	Tal ELLENBOGEN – Center for Light-Matter Interaction, Tel-Aviv University (IL) <i>Active, Nonlinear and Anomalous Optical Dynamics in Nanoresonator Arrays</i>
9.45– 10.05	Glenna DRISKO – Controlling nanostructuration in 2D surfaces to tailor color, matte finish and iridescence
10.05 – 10.25	Fernando CHACON SANCHEZ - On the road for sustainable based structural colors based on Bismuth plasmonics: nanostructured metasurfaces vs Fabry-Perot cavities
10.25 – 10.45	Benedict MORRIS – Exploring the Temperature-Dependent Optical Properties of VO ₂ Thin Films for Metasurface Applications
10.45 – 11.05	Coffee Break
11.05 – 11.25	Oumaima HAIDAR – Effect of the porous layer on the detection of the Tamm state in a nanostructured metal lattice and a Bragg reflector
11.25 – 11.45	Miao CHEN – Specular reflection and transmission of electromagnetic waves by disordered metasurfaces
11.45 – 12.05	Michalina SLEMP – Hyper Hyper Rayleigh Scattering: magnetic field influence on gold nanoparticles with linear and elliptical light polarization.
12.05 – 12.25	Aimeric OUVARD – Molecular adsorption driven atomic migration and electron transfer in plasmonic nanoparticles
12.25 – 13.30	Lunch (M104 room)
Session 5 – Enhanced light-matter interactions at the nanoscale 1 – Chair:	
13.30 – 14.15	Davy GERARD – Université de Technologie de Troyes (FR) <i>Subwavelength imaging of chiral nanostructures with photopolymers</i>
14.15 – 14.35	Artur MOVSESYAN – Creating chiral plasmonic nanostructures using chiral and linearly polarized light: The near-field and hot-electron routes
14.35 – 14.55	Monika FLEISCHER – Hybrid bright and directional single photon sources
14.55 – 15.15	Aurélien BROUSSIER – A single photon source on an ion-exchanged glass waveguide.
15.15 – 15.35	Camilo PEREZ DE LA VEGA – Plasmon-mediated energy transfer between two systems out of equilibrium
15.35 – 15.55	Coffee Break
16.00 – 18.30	Bus to Museum and city visits
18.30 – 20.00	Poster session – Cocktail « soupe champenoise » – M104 room

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Thursday 21st September 2023

Session 6 – Theoretical and numerical studies – Chair:

8.40 – 9.25	Peter WIECHA – LAAS, Toulouse (FR) <i>Deep learning for nano-photonics inverse design</i>
9.25 – 9.45	Mathieu MIVELLE – A magnetic monopole nanoantenna
9.45– 10.05	Maximilian GRIMMER – Enhancing Fano resonances through coupling of dark modes in a dual-ring nanostructure
10.05 – 10.25	Abdourahman KHAIREH WALIEH - Optical response prediction with Graph Neural Networks handling flexible structure sizes
10.25 – 10.45	Coffe break
Session 7 – Enhanced light-matter interactions at the nanoscale 2 – Chair:	
10.45 – 11.30	Céline FIORINI – IRAMIS, CEA Saclay (FR) What can we learn from the two-photon luminescence of gold nanoparticles ?
11.30 – 11.50	Andreas HOHENAU – Photoconductivity in gold nanogaps
11.50 – 12.10	Alina MURAVITSKAYA – Unidirectional photoluminescence outcoupling via surface plasmons
12.10 – 12.30	Laurent COOLEN – Metallic nanoparticles in perovskite solar cells : plasmonic effects or others ?
12.30 – 12.50	Closing session – Best talk and poster awards
12.50 – 14.00	Lunch (M104 room)
14.00 – 16.00	Lab Tour (Nano'Mat Platform)

The abstracts can be found in <https://mno2023.sciencesconf.org/program>