PLASMONICA 2026

Pisa, Italy — July 8–10, 2026

Conference Program

Program Overview

Wednesday, July 8 — Afternoon

12:30–14:00	**Welcome and Registration**
14:00–14:15	**Opening Remarks**
14:15–14:45	**Invited Talk** – Paola Borri
14:45–16:00	**Session I: Advanced imaging and microscopy techniques**
16:00–17:00	**Poster Session** with coffee break
17:00–18:30	**Session II: Collective effects and metasurfaces**
18:30–18:45	**Sponsor Talk**

Thursday, July 9 — Full Day

09:00–09:30	**Invited Talk** – Jacinto Sá
09:30–10:45	**Session III: Plasmonics for catalysis and energy**
10:45–11:30	**Poster Session** with coffee break
11:30–12:45	**Session IV: Photonic and dielectric structures**
12:45–14:00	**Lunch** – Catered at the venue
14:00–15:00	**Session V: Chirality in plasmonics and nanostructures**
	Dedicated to the memory of Prof. Alessandro Belardini
15:00–16:00	**Session VI: Thermoplasmonic effects**
16:00–17:00	**Poster Session** with coffee break
17:00–18:00	**Session VII: Polaritonics**
18:00–18:15	**Sponsor Talk**
18:15–19:15	**Roundtable Discussion**
20:15	**Social Dinner**

Friday, July 10 — Morning

09:00–09:30	**Invited Talk** – Lorenzo Tesi
09:30–10:45	**Session VIII: Ultrafast, infrared and terahertz**
10:45–11:30	**Poster Session** with coffee break
11:30–12:45	**Session IX: Sensing and SERS**
12:45–13:00	**Closing Remarks**

Detailed Program

Wednesday, July 8

Session I

Advanced imaging and microscopy techniques

14:15–14:45	**Paola Borri** (Cardiff University), *TBA*
14:45–15:00	**Florian Pagnini** (University of Luxembourg), *Towards sub-femtosecond, time-resolved imaging at the atomic scale*
15:00–15:15	**Camilla Gonzini** (LENS and University of Florence), *Imaging Quasi-BIC Modes in Silicon Metasurfaces with Hyperspectral Near-Field Microscopy*
15:15–15:30	**Martina Corsi** (University of Pisa), *4D Plasmon-Encoded Polydimethylsiloxane Lenses for Portable Fluorescence Microscopy of Microorganisms*
15:30–15:45	**Aleksei Smirnov** (University of Camerino), *Plasmonic (Bio)Sensing in Tumour Cells: Discrepancies and Complementarity of Imaging Approaches*
15:45–16:00	**Alessandra Corrado** (IIT and Università del Salento), *Sputtering-Based Solid-State Dewetting for integrating plasmonic structures on the facet of optical fibers*

Session II

Collective effects and metasurfaces

17:00–17:15	**Andrea Vogliardi** (University of Padova), *Generation and topological reconfiguration of 2D and 3D skyrmions via spin-decoupled metasurfaces*
17:15–17:30	**Giuseppe Emanuele Lio** (University of Pisa), *Probing Concealed Fabry-Pérot Resonances Using Dual-Beam Coherent Absorption*
17:30–17:45	**Alberto Santonocito** (CNR), *A magnetically switchable bifocal metasurface*
17:45–18:00	**Elizabeth Mendoza-Sandoval** (University of Padova), *Effect of the surface lattice resonance modes on the emission efficiency of plasmonic nanolasers*
18:00–18:15	**Angela Capocefalo** (CNR and Sapienza University of Rome), *Re-entrant plasmon coupling in thermoresponsive colloids*
18:15–18:30	**Vincenzo Aglieri** (IIT), *Introducing the Degree of Collectivity in Lattice Resonances of Plasmonic Nanoparticle Arrays*
18:30–18:45	**Sponsor Talk**

Thursday, July 9

Session III

Plasmonics for catalysis and energy

09:00–09:30	**Jacinto Sá** (Uppsala University), *Plasmon: from metal ore to nanocatalyst*
09:30–09:45	**Alberto Naldoni** (University of Turin), *Photocatalysis with titanium nitride nanoplasmonics*
09:45–10:00	**Emanuele Coccia** (University of Trieste), *Modelling plasmon-mediated photocatalysis*
10:00–10:15	**Fatemeh Kiani** (ETH Zürich), *Probing Plasmonic CO_2 Reduction Catalysis: Wavelength- and Size-Dependent Selectivity*
10:15–10:30	**Rajesh Chennuboina** (University of Genoa), *Broadband light harvesting with flat-optics 2D TMD-plasmonic nanoarrays*
10:30–10:45	**Ajay Poonia** (Umeå University), *Boosting light outcoupling in light emitting electrochemical cells using Si nano-scatterers*

Session IV

Photonic and dielectric structures

11:30–11:45	**Gabriele Calusi** (University of Florence and LENS), *Lifshitz-like States in Hyperuniform Disordered Photonic Networks*
11:45–12:00	**Sonia Freddi** (CNR), *Templated Germanium Dewetted Mie Resonators for Sensing Applications*
12:00–12:15	**Angela Barreda** (University Carlos III of Madrid), *Enhancing Light–Matter Interactions with Plasmonic–Dielectric Nanostructures*
12:15–12:30	**Alice Sindoni** (University of Padova), *Ultrafast dynamics in epsilon-near-zero multilayer metamaterials*
12:30–12:45	**Sponsor Talk**

Session V

Chirality in plasmonics and nanostructures

Dedicated to the memory of Prof. Alessandro Belardini.

14:00–14:15	**Emilija Petronijevic** (Sapienza University of Rome), *Remembering Professor Alessandro Belardini: our journey from chiro-optical effects in nanostructures to widely tunable laser photo-acoustic spectrosopy*
14:15–14:30	**Claudia Skubisz** (Sapienza University of Rome), *Photo-acoustic spatial mapping of chirality*
14:30–14:45	**Giovanna Capizzi** (Sapienza University of Rome), *All-optical investigation of chirality-driven interactions of spherical gold nanoparticles*
14:45–15:00	**Pablo Albella Echave** (University of Cantabria), *Nanophotonics for Biomedical Applications: From Chiral Optical Forces to Directional Photothermal Therapies*

Session VI

Thermoplasmonic effects

15:00–15:15	**Antonio Garcia-Martin** (CSIC), *Optical properties of VO_2/Au metasurfaces*
15:15–15:30	**Cecilia Romeo** (Vrije Universiteit Amsterdam), *2D materials for control of nanoscale optical heating*
15:30–15:45	**Beatrice Muzzi** (CNR), *Star shaped magnetic-plasmonic Au@Fe_3O_4 nano-heterostructures for photothermal therapy*
15:45–16:00	**Claudia Triolo** (Mediterranean University of Reggio Calabria), *Wavelength-Dependent Modulation of Thermal and Thermo-Plasmonic Properties in Porphyrin Aggregates*

Session VII

Polaritonics

17:00–17:15	**Elisabetta Collini** (University of Padova), *Vibrationally Mediated Coherent Energy Exchange in Plexcitonic Nanomaterials*
17:15–17:30	**Armando Genco** (University of Pisa), *Coherent and incoherent exciton-polaritons dynamics in van der Waals semiconductor metasurfaces*
17:30–17:45	**Alexey Nikitin** (Donostia International Physics Center), *Hyperbolic polaritons in van der Waals crystals*
17:45–18:00	**Valeria Nocerino** (University of Naples Federico II), *Fano-Type Asymmetric Scattering in Bimetallic Ag-Au Core-shell Nanoislands*
18:00–18:15	**Sponsor Talk**

Friday, July 10

Session VIII

Ultrafast, infrared and terahertz

09:00–09:30	**Lorenzo Tesi** (University of Stuttgart), *Plasmonic Metasurface Resonators for Terahertz Magnetic Resonance Investigating 2D Magnetic Materials*
09:30–09:45	**Tersilla Virgili** (CNR), *Tailoring the Ultra-Fast Infrared Optical Response of Al:ZnO Through Nanostructuration*
09:45–10:00	**Alessandro Pitanti** (University of Pisa and CNR), *Nonlinear enhancement of far-infrared thermomechanical bolometers*
10:00–10:15	**Hannes Kempf** (Umeå University), *Spatiotemporal excitation of Bloch plasmon polaritons in hyperbolic metamaterials*
10:15–10:30	**Emmanuele Cannavò** (University of Pisa), *Babinet principle, inverse design and non-local effects: investigating phonon-polariton microstructures in the infrared region*
10:30–10:45	**Greta Sambucari** (LENS), *Ultrafast spectroscopic insight into thermally activated delayed fluorescence (TADF) in donor–acceptor dyads*

Session IX

Sensing and SERS

11:30–11:45	**Alessia Santiglia** (University of Milan), *Interfacial Plasmonics for Ultrasensitive SERS Detection of Organic Dyes*
11:45–12:00	**Francesca Torrini** (CNR), *Programmable coacervates as plasmonic boxes for biomolecule sensing via Raman spectroscopy*
12:00–12:15	**Jacopo Cardellini** (University of Florence), *Liposome-Gold Nanoparticles hybrid for Reproducible SERS Tags in Bioanalytical Applications*
12:15–12:30	**Sveva Sodomaco** (Scuola Normale Superiore), *Multiscale atomistic modeling of SERS and SEHRS in amino acids and nucleobases*
12:30–12:45	**Luisa Ponticelli** (LENS), *A nanoplasmonic-magnetic bioorthogonal sandwich-like immunoassay for the selective capturing and detection of Alzheimer's disease pathological biomarkers in biological fluids*

Poster Session A

- **Leonetta Baldassarre** (Sapienza University of Rome), *Raman Spectroscopy with 1550 nm Excitation Enhanced by Optical Antennas*
- **Dario Baldon** (University of Padova), *2D-ES Analysis of Colloidal Plexcitonic Nanohybrids*
- **Fritz Berkmann** (Brandenburg University of Technology), *TiN nanohole arrays as integrated plasmonic NIR wavelength filter for multispectral imaging*
- **Sofia Biscotti** (NA), *Digital holography for the reconstruction of particles suspended in diamagnetic drops levitated in a magneto-gravitational trap*
- **Samuele Botticelli** (University of Pisa, Department of Chemistry and Industrial Chemistry, Pisa, Italy), *Modelling exciton-polaritons within an extended Frenkel Hamiltonian framework*
- **Stefano Campanaro** (University of Modena and Reggio Emilia), *Tunable superplanckian near-field radiative heat transfer in hyperbolic metamaterials*
- **Simone Cassandra** (CNRS and Université Paris-Saclay), *Mid-IR SESAMs for fiber lasers mode-locking at 3.6 um based on intersubband transitions in strong coupling*
- **Cristiano D'Andrea** (CNR), *Surface-Enhanced Raman Spectroscopy and Artificial Intelligence for improved Alzheimer's Disease Diagnosis Using Cerebrospinal Fluid Analysis*
- **Lorenzo Dei Rossi** (University of Padova), *Exploring Chiral Polaritons: Chirality Transfer in the Strong Coupling Regime*
- **Faycal Djeffal** (University of Batna), *Plasmonic enhancement in ZnO–Au–ZnO trilayer structures: Effect of top ZnO thickness and annealing-induced Au nanoparticles*
- **Elisa Elli** (CNR and University of Pisa), *Tailoring Silver Nanoparticles to Match Organic Dye Properties in SERS Analysis*
- **Reda Er Roukhou** (Abdelmalek Essaadi University), *Plasmonic sensor based on multiple Fano resonances in metal-insulator-metal waveguide coupled with a triangular ring-like cavity and groove*
- **Antonio Ferraro** (CNR), *Exploiting Cholesteric Liquid Crystals based Physical Unclonable Functions for One Time Password generation*
- **Maria Gambelli** (Sapienza University of Rome and CNR), *Design, material growth and fabrication of ISB-based antenna-coupled detectors in Ge-rich SiGe heterostructures*

- **Wejden Gazehi** (National Engineering School of Tunis), *Comparative analysis of classical and quantum machine learning models for nanomaterial property classification*
- **Armando Genco** (University of Pisa), *Coherent and incoherent exciton-polaritons dynamics in van der Waals semiconductor metasurfaces*
- **Chaima Gharbi** (National Engineering School of Tunis), *Comparative Analysis of Boosting-Based Machine Learning Algorithms for Nanoparticle Property Classification*
- **Maria Caterina Giordano** (University of Genova), *Flat-optics nanostripes & hybrid 2D-plasmonic nanoantennas for directional light scattering and photon emission*
- **Nicoletta Granchi** (University of Florence), *Improved Disorder Resilience in Small-Footprint Photonic Cavities with Periodicity Breaking*
- **Giorgia Granocchia** (CNR), *Innovative antenna materials for energy transfer applications*
- **Marco Ierani** (Sapienza University of Rome), *Terahertz metamaterial sensors based on asymmetric Split Ring Resonators for biosensing*
- **Hrishikesh Ingole** (Sapienza University of Rome), *Development of Atomic Force Microscopy-assisted Terahertz Imaging to Probe Individual Protein Nano-Structures*
- **Francesca Intonti** (University of Florence and LENS), *Fabrication of broad-band, wide-angle antireflective structures for high-power laser applications via nano-imprint lithography*

Poster Session B

- **Chaimaa Moukhfi** (University of Pisa), *Shaping luminescence in lanthanide doped halide nanocrystals*
- **Agostino Occhicone** (Sapienza University of Rome), *Mid-Infrared ellipsometry enhanced by means of localized electromagnetic states of a one-dimensional photonic crystal*
- **Michele Ortolani** (Sapienza University of Rome), *Mid-infrared nonlinearities in heavily-doped semiconductor nanoantennas and waveguides*
- **Costanza Paccagnini** (University of Pisa), *Circularly polarized lasing cavities using cellulose nanocrystal as polarization-selective reflectors*
- **Gianmarco Papi** (University of Pisa), *Undoped and Sn-doped In2O3 Nanocrystals: a versatile platform for infrared plasmonic applications*
- **Marcello Pozzi** (ETH Zurich), *Coupling quasi-bound states in the continuum to broadband resonances in network metamaterials*
- **Abdul Qadeer** (Scuola Normale Superiore), *Atomistic Modeling of Plasmonic Au@Ag Nanostructures*
- **Sufian Rasheed** (University of Potsdam), *Plasmon-Driven Retro-Diels–Alder Reactions at the Single-Particle Level in Nanoparticle-on-Mirror Nanocavities*
- **Karen Regules Medel** (University of Nottingham), *Modelling ion-specific refractive index changes at charged interfaces*
- **Anyi Ximena Rodríguez Rodríguez** (Universidad Central of Bogotá), *Affinity of Bifidobacterium adolescentis protein postbiotics and infectious rotavirus particles*
- **Marco Salvatori** (University of Pisa), *Plasmonic Indium Tin Oxide Nano Crystals for IR-Thermal Imaging Cameras*
- **Ayse Mine Saridag** (Gaziantep University), *Detection of Cancer Protein Biomarkers in Serum Using SERS on a Plasmonic Nanocomposite Strip*
- **Philip Schäfer** (Attocube Systems GmbH, Neaspec (ALX)), *Real Space Visualization of Plasmons using Scattering SNOM*
- **Elkin Daniel Sepúlveda Álvarez** (Universidad de los Andes), *TMOKE Enhancement via Hybrid Fabry–Perot-Plasmonic Modes in Magnetoplasmonic Multilayers*
- **Nicola Steffenato** (University of Pisa), *Tuning magneto-optical response of copper tetraphenylporphyrin by means of supramolecular organization and of plasmon-molecule interactions*
- **Prasenjit P Sukul** (University of Padova), *Angle-dependent upconversion tuning for white light generation in 1D-Microcavity structures*
- **Oussama Tata** (University Mohammed VI Polytechnic), *Multisubband plasmons in an InAs/GaSb broken-gap quantum well*
- **Muhammad Tayyab** (King Fahd University of Petroleum and Minerals), *Regulating redox sites for photocatalytic phenylcarbinol conversion and H2 production on lattice-matched Schottky junction*
- **Marco Turriani** (INSTM and University of Pisa), *Shape-changing multiphase microlenses from Complex Liquid Crystal Emulsions: a proof of concept.*
- **Niccolò Ulivieri** (University of Florence), *Lanthanide complexes with Trensal ligand as NIR emitters: from solution to vacuum-sublimated films*
- **Liliana Valente** (University of Calabria and CNR), *Investigation of Chiral-Material Interaction and Sensing Capabilities in a Plasmonic Metasurfaces*