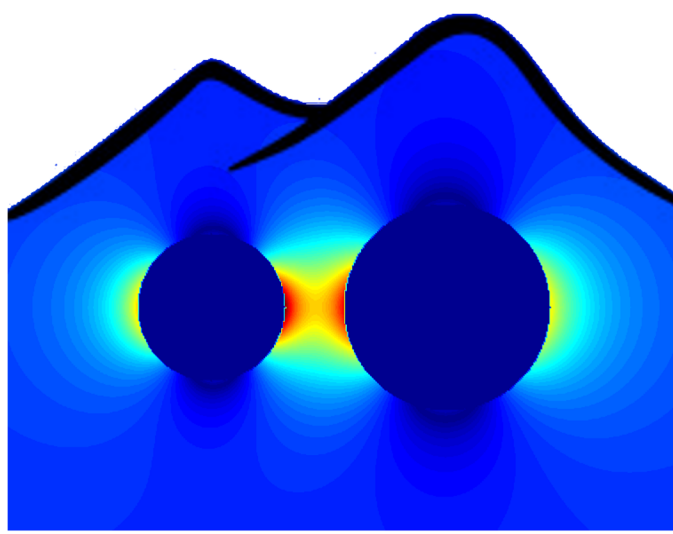
PLASMONICA 2019

June 19-21 2019 | Naples, Italy
San Marcellino & Festo Monastery
www.plasmonica.it/2019



Plasmonica is an annual conference aimed at bringing together a thriving community of researchers working on Plasmonics and Nanophotonics. In particular, the conference encourages early career researchers, PhD students, and post-docs to share their latest results, to discuss recent advances in the field, and to start new collaborations on challenging scientific problems.

Organizing Committee

- Vincenzo D'Ambrosio Università degli Studi di Napoli “Federico II”
- Luca De Stefano CNR-IMM - Napoli
- Carlo Forestiere Università degli Studi di Napoli “Federico II”
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Technical Committee

- Ambra Giannetti Institute of Applied Physics Nello Carrara
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Oral Presentation Guidelines

- The total time allotted to each speaker is 15 minutes. You should plan to speak for 12 minutes and leave 3 minutes for questions.
- The projection screen has a 16:9 format and is 3.30 m wide
- We kindly encourage the speakers to upload their presentations on the computer we provide. Please upload your presentation before your session and check there for compatibility issues. For any problem or special request please contact the session chair before the session starts.
- We provide the following equipment:
    - Laptop (PC)
    - PowerPoint
    - Microphone
    - Laser pointer
    - Remote Control Presentation Clicker

Poster Presentation Guidelines

- Poster boards are about 80 cm width x 200 cm height. Any poster fitting these limits is allowed.
- In the workshop Program, please note the tag assigned to your poster. This tag identifies the poster board where to hang your poster.
- All necessary material for attaching the poster to the poster board will be available at the Workshop desk.

Best oral and poster awards

At the end of the conference SIOF and IEEE Photonic Society Italy Chapter will offer four prizes of **200 EUR**

- to the two Best Oral Presentations
- to the two Best Poster Presentations

The journal Sensors IMDI will offer a prize of **500 CHF** to the best presentation on plasmonic sensors.

All the winners will be announced at the closing ceremony of the conference

Special Issue of Sensors

Authors of papers presented at this conference and within the scope of Sensors (http://www.mdpi.com/journal/sensors) are invited to submit a technically extended version to the Special Issue of Sensors (Impact Factor 2.5):

Selected Papers from Plasmonica 2019 - 7th Edition of the Workshop on Plasmonics and its Applications

As an open access journal, Sensors have an Article Processing Charge (APC) of 1800 CHF for accepted papers.

The conference participants will receive a 10% discount on the publishing fees.

The Special Issue website can be reached at:

http://www.mdpi.com/journal/sensors/special_issues/Plasmonica 2019

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Conference Location

The conference will be held at San Marcellino and Festo Complex, a prestigious historic monastery in the heart of Napoli. The construction of the chiostro began in 1567, when the monasteries of Santi Marcellino e Pietro and Santi Festo e Desiderio (both dating back to the VIII century) were unified, and ended up in 1772. It has a rectangular courtyard surrounded by a portico (three pillared arches) with decorations in piperno; an eight-twentieth-century garden decorated with various fountains in piperno and marble stands in the center. On the south side, there is access to the splendid church of San Marcellino e Festo, now crown jewel of the University Congress Center.

How to reach San Marcellino & Festo Monastery

The easiest way to reach the conference venue is by entering the main building of the **University of Naples "Federico II"** (picture on the left), whose address is:

Corso Umberto I, 40, Napoli

It is two minutes walk from the "Università" stop of the Metro 1. You can take the **Metro 1** from the Napoli central station (Napoli Centrale). Inside the University you will find signs with the Plasmonica2019 logo that will guide you to the San Marcellino & Festo Monastery. You can also ask to the university staff that will guide you to the San Marcellino and Festo complex. The address of the monastery is

Largo San Marcellino, 7, Napoli.

Social Dinner


The conference dinner will take place on June 20th at 20:30 at the restaurant 'Antonio & Antonio' which is located on the beautiful Napoli waterfront.

The address is Via Partenope 26, Napoli

Please note that

- the cost of the social dinner is of additional **25 EUR** for any conference participant
- Guests are welcomed. The cost of the social dinner for a guest is of 30 EUR. If you would like to bring more than one guest please let us know by sending a mail to workshop@plasmonica.it
- If you have food allergies or you prefer a vegan option please let us know!
- The regular menu includes
    - Welcome drink (prosecco)
    - Assorted pizza slices (spicchi di pizza assortiti)
    - Seafood Risotto (Risotto alla pescatora) or a vegetarian option
    - Babà
    - Limoncello;
    - Wine and Water;

Conference Program

	Wednesday June 19		
	9:30-10:30		**Registration**
	10:30-10:45		**Opening**
De Angelis	10:45-11:30	Quidant	Putting Nanoplasmonics to work!
			Biosensors
	11:30-11:45	Romano	Exponential sensitivity of a bound-state-in-continuum photonic crystal sensor
	11:45-12:00	Santoro	Exploring dimensionality for biosensing
	12:00-12:15	Alessandri	Plasmonic Hydrogels for Pan-Specific Capture and Ultrasensitive Raman Detection of Persistent Organic Pollutants
	12:15-12:30	Di Meo	Plasmonic Metasurface based on Cross-Shaped Nanoantennas for Biosensing Applications
	12:30-14:30		**Lunch**
Alessandri			**Plasmonics for Chemistry and Bio-Chemistry**
	14:30-14:45	Baldi	Plasmonics for Chemistry: sensing and driving chemical reactions using plasmons
	14:45-15:00	Garma	Electrophysiology for the masses: a cost-effective ecosystem for the study of electrogenic cells
	15:00-15:15	Guido	Control of Coherences and Optical Responses of Pigmenta Protein Complexes by Plasmonic Nanoantennae
	15:15-15:30	Hernandez	Remotely Generated Hot-Electron using Surface Plasmon Polaritons
	15:30-15:45	Della Ventura	Plasmonic Enhanced Fluorescence as an Effective Biosensing Platform: Detection of Immunoglobulins in Urine for POC Applications
	15:45-16:00	Sepe	Study of the Fluorescence Emission at the Surface of 1D-Photonic Crystal Biochips
	16:00-16:30		**Coffee Break**
Baldi	16:30-16:45	Jensen NKT Photonics	Towards the ultimate light source
			SERS/SEIRA
	16:45-17:00	Zito	Surface-Enhanced Raman and Fluorescence Spectroscopy with an All-Dielectric Metasurface
	17:00-17:15	Caprara	SERS spectroscopy as a high-performance technique to monitor the DNA melting profile
	17:15-17:30	Novara	In situ growth of silver nanoparticles on PDMS membranes for multi-wavelength SERS biosensing platforms
	17:30-17:45	Giordano	Plasmon engineering in self-organized metasurfaces for broadband Surface Enhanced Infrared Absorption (SEIRA) spectroscopy
Celebrano			**Aperiposter Session**
	17:45-17:55	Ferraro	Best Doctoral Thesis Award: From basic to advanced: design, fabrication and characterization of functional Terahertz devices
	17:55-19:00		**Poster Session**

	Thursday June 20		
Baldassarre	09:00-09:45	Reich	Plasmonic nanoparticle crystals: Exploring the limits in light-matter coupling
	Alternative Plasmonic Materials and Dielectrics Resonators		
	09:45-10:00	Li Bassi	Nanoengineered TiO2 and Ta:TiO2 films with enhanced optical/electrical properties for advanced photoconversion and plasmonics
	10:00-10:15	Ciano	Surface Plasmon Waveguides in the THz range for photoluminescent and nonlinear emitters based on Ge/SiGe Quantum Wells
	10:15-10:30	Setaro	Plasmon-Assisted Phenomena in Gold-Carbon Nanotubes Hybrids
	10:30-11:00	**Coffee break**	
Bollani - Sapienza	11:00-11:15	Vitucci Crisel Instruments	THz technology for imaging: from Time Domain Spectroscopy (TDS) to THz Quantum Cascade Laser (THz QCL) Imaging
	Cavities and Resonators		
	11:15-11:30	Sapienza	Dielectric nanocavities for enhanced Purcell effect and strong directionality
	11:30-11:45	Mancini	Near-field spectroscopy of Phonon Polariton resonators
	11:45-12:00	Caligiuri	A Semi-Classical view on the Occurrence and Hybridization of Resonant Tunnelling Epsilon-Near-Zero Modes in Metal/Insulator Nanocavities
	12:00-12:15	Zambrana-Puyalto	Enhanced single molecule detection using Plasmonic Nanochannels and Zero-Mode Waveguides
	12:15-12:30	Piccotti	Two-dimensional nanostructure arrays for plasmonic nanolaser devices
	12:30-14:30	**Lunch**	
Mattei	**Multiphysics systems**		
	14:30-14:45	Gabbani	Coupling Plasmonics with Magnetism in Magnetoplasmonic Hybrid Nanoalloys
	14:45-15:00	Patti	Chiral optical forces and optical trapping of optically active particles
	15:00-15:15	Polito	Difference nanospectroscopy of Proteins in Cell Membranes Located in a 10-nanometer wide Plasmonic Nanogap
	15:15-15:30	Ferrera	Plasmonics of Au Nanoparticles in a Variable-Temperature Thermodynamic Bath
	15:30-15:45	Gillibert	Polarization-dependent thermoplasmonic response of anisotropic metal nanoparticles
	15:45-16:00	Behel	Second Harmonic Scattering from Hybrid Gold & Dielectric Nanoparticles
	16:00-16:30	**Coffee Break**	
Intonti	**Probing and Imaging**		
	16:30-16:45	Isoniemi	Probing resonant modes in hyperbolic metamaterial nanostructures with electron energy loss spectroscopy
	16:45-17:00	Triolo	Near-field imaging of surface-plasmon vortex-modes around a single elliptical nanohole in a gold film.
	17:00-17:15	Zilli	Quantitative measurement of the optical cross-sections of single nano-objects
	17:15-17:30	Leonetti	Scattering Assisted Imaging
	17:30-18:30	**Round Table**	
	18:30-18:45	**Election Steering Committee Plasmonica**	
	20:30	**SOCIAL DINNER, Antonio & Antonio Restaurant**	

	Friday June 21		
Cirac'i	09:00-09:45	A. Alù	Plasmonic metamaterials
	Modes & Topology		
	09:45-10:00	Pascale	Full-wave mode hybridization in Nanoparticle Dimers
	10:00-10:15	Picardi	Dipolar sources for directional and selective excitation of guided modes
	10:15-10:30	Garcia-Etxarri	Topological photonics: Mistaken paradigms and new opportunities
	10:30-11:00	**Coffee Break**	
Finazzi	11:00-11:15	Calvano (Ansys)	Metamaterial Simulation with ANSYS
	Non Linear Effects		
	11:15-11:30	Savo	Nonlinear Light Generation in Disordered Micro-Balls
	11:30-11:45	Rocco	Efficient Second Harmonic Generation in Dielectric Nanoantennas with Epsilon-Near-Zero Substrate
	11:45-12:00	De Luca	Parameter-free hydrodynamic treatment of Difference-frequency Generation in plasmonic nanostructure
	12:00-14:00	**Lunch**	
De Luca	**Quantum Effects**		
	14:00-14:15	Tricarico	Field Quantization in Arbitrarly-Shaped Metal Nanoparticles
	14:15-14:30	Giannone	Molecular Switches interacting with Localized Surface Plasmons: a Density Functional Theory Approach
	14:30-14:45	Della Sala	Ab initio Plasmonics of Externally Doped Silicon Nanocrystals
	14:45-15:00	D'Agostino	The Role of Quantum Mechanical Effects in Metal-Molecule Interactions
Esposito	**Metasurfaces & Gratings**		
	15:00-15:15	Chowdhury	Large-area nanostripe gratings for flexible NIR plasmonics and optoelectronics
	15:15-15:30	Marabelli	Anomalous effective permittivity of Vogel spiral metamaterials
	15:30-15:45	Occhicone	Mid-infrared Bloch Surface Waves for Sensing Biomolecules by their Fingerprints
	15:45-16:00	Papari	Sensing using Surface Plasmon Polaritons in THz metagrids
	16:00-16:15	**Conference Awards**	
	16:15-16:30	**Closing Remarks**	

Keynote Regular Session Coffee-break/lunch/aperitif Opening/Closing Awards

Posters Wednesday 19 June, 18pm

Tag	First Name	Last Name	Poster Title
1	Henrikh	Baghramyan	Pauli-Gaussian kinetic energy functionals for quantum hydrodynamic theory
2	Leonetta	Baldassarre	Time-resolved THz spectroscopy of Ge/SiGe multi-quantum wells
3	Alessandro	Belardini	Circular dichroism of chiral molecules on asymmetric hole array
4	Paolo	Biagioni	Slit arrays for plasmon-enhanced vibrational circular dichroism
5	Monica	Bollani	Plasmon-enhanced Ge-based Metal-Semiconductor-Metal photodetector at near-IR wavelengths
6	Lukasz	Bujak	Scattering of single photons on a single nanoparticle
7	Angela	Capaccio	Fabrication of Silver NPs-Coated AFM Probes for Tip-Enhanced Raman Spectroscopy by Solid-State Dewetting
8	Michele	Celebrano	Optimization and Control of the Second-Harmonic Generation in AlGaAs Dielectric Nanoantennas
9	Joao Paulo	Coelho	Self-Assembly of Gold Nanoparticles through Supramolecular Polymerization at the Air-Water Interface
10	Adriano	Colombelli	Long-and short-range ordered gold nanoholes as large-area optical tunable transducers for sensing applications
11	Antonio	De Luca	A robust ellipsometric analysis of nanoscale layered structures
12	Antonio	Ferraro	Terahertz filter with flat-top transmission response
13	Marco	Finazzi	Evidence for cascaded third harmonic generation in non centrosymmetric gold nanoantennas
14	Carlo	Forestiere	Resonances and modes in the electromagnetic scattering from 2D bodies
15	Felice	Gesuele	Imaging exciton distribution in monolayer transition metal dichalcogenides and van der Waals heterostructures
16	Gabriel	Gil	Real-time dynamics of plasmonic resonances in nanoparticles described by a general dielectric function
17	Nicoletta	Granchi	Near-Field imaging of local light emission in transition metal dichalcogenides curved monolayers
18	Romain	Hernandez	Investigating hot-electrons with metal-semiconductor-metal slit arrays
19	Francesca	Intonti	Spectral control of disorder photonic modes
20	Alemayehu Nana	Koya	Novel plasmonic nanocavities for optical trapping-assisted sensing applications

21	Giuseppe Emanuele	Lio	Nanoscale Numerical Behavior of Flexible Plasmonic Materials
22	Claudia	Lubrano	3D biosensing interfaces mediated by artificial lipid bilayers
23	Jacopo	Marcheselli	Hybrid organic-inorganic nanosystems: assessing a boundary element method approach to optical properties of gold bipyramidal nanoparticles
24	Michele	Massari	Pancharatnam-Berry transformation optics for total angular momentum sorting
25	Laura	Matino	Full Resolution of Cell-Biosensor Interface Via Scanning Electron Microscopy/Focused Ion Beam
26	Bruno	Miranda	Optimization of a Dual-Mode optical biosensor for biomedical applications
27	Alina	Muravitskaya	Polarization switch between parallel and orthogonal collective resonances in aluminum arrays
28	Patrick	O'Keeffe	Sensitizing Wide Band Gap Oxides to Visible Light using Plasmonic Metal Nanoparticles
29	Michele	Ortolani	Nanoscale Surface Thermal Gradients in Mid-infrared Vertical Antenna Arrays
30	Paolo	Polimeno	T-matrix calculations of spin-dependent optical forces in optically trapped nanowires
31	Paolo	Polimeno	Calculation of optical forces in optically trapped resonant gain metal/dielectric nanoshell
32	Paolo	Ponzellini	Metallic porous Aluminum for UV enhanced spectroscopy
33	Giuseppe	Quero	Optical Fiber SERS Optrodes based on Nanosphere Lithography
34	Ilaria	Rea	SERS-active hybrid plasmonic nanoparticles for intracellular sensing
35	Andrea	Rossetti	Study of interface roughness in doped SiGe Quantum Wells for future Silicon-based THz emitters
36	Maria	Salbini	A label-free optic SPR biosensor for mechanotransduction and force generation
37	Filippo	Sciortino	CaF_2, embedding for nano-imaging of plasmonic vertical nanoresonators in the mid-infrared
38	Katya Marinova	Simeonova	Theoretical Study of Mechanical Behavior of Carbon Nanotubes (CNTs), Under Controlled Indentation Force. Applications in Quantum Nano Photonics
39	Maria	Sygletou	Ultrafast vs thermodynamic heating of plasmonic Al nanodisks
40	Arturo	Tagliacozzo	Coupling of infrared radiation with Josephson Junction fluxon oscillations via spoof plasmon
41	Alfonso	Tanga	Terahertz Scattering Microscopy for Dermatology Diagnostics
42	Maria Eleonora	Temperini	Nanoplastics Detection in Seawater Samples with an Infrared Plasmonic Nanoprobe