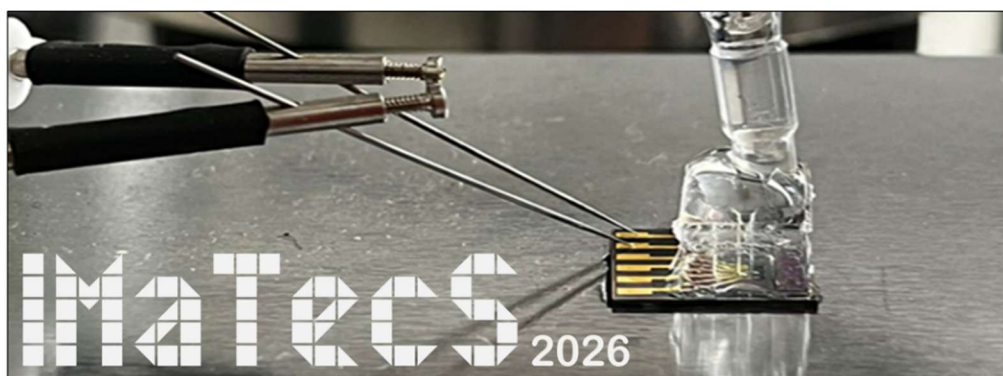




Innovative Materials and Techniques for advanced Sensing

Pozzuoli – 16th January 2026

PROGRAM

08:30	Registration	
09:15	Welcome address	
09:25 - 11:10	Session I	Chair: <i>Mario Barra</i>
09:25	Stefano Toffanin	Smart-integrated System based on Organic Optoelectronic Components for Optical Biosensing
09:50	Lucia Petti	From nanomaterials to biosensors: the smartsenso approach to diagnostics and food safety
10:10	Valentina Preziosi	Integrating microfluidics and biosensing techniques to detect biomarkers in biological fluids
10:30	Roberto Di Capua	Synthesis and characterization of bio-inspired molecules starting from 5,6-dihydroxyindole (DHI) for implantable and stretchable bioelectronics
10:50	Ettore Sarnelli	High-performance flexible organic phototransistors
11:10	<i>Coffee break/Poster session</i>	
11:45 – 13:30	Session II	Chair: <i>Patrizia Minutolo</i>
11:45	Carlo Altucci	Innovative Nanomaterials for sensing and biomedical applications at the NANO-PHOR-UNINA group
12:10	Silvia Romano	Bound States in the Continuum in Nanophotonic Metasurfaces for Next-Generation Biomedical Sensors and Advanced Light–Matter Interaction Control
12:30	Vincenzo Guarino	Biofunctional interfaces via electro fluid dynamics: from diagnosis to treatment
12:50	Gino Giusi	Low Frequency Noise in DNTT/Cytop Organic Thin Film Transistors
13:10	Fabio Chiarella	2D Organic-Inorganic Halide Perovskites for Hybrid Heterostructures: single crystals, thin films and exfoliated flakes
13:30	<i>Lunch/Poster session</i>	



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14:35 – 16:20	Session III	Chair: <i>Antonio Vettoliere</i>
14:35	Massimo Cuscunà	2D and 3D Nanostructured Sensing Platforms: Enabling Ultrasensitive Diagnostics for Personalized Medicine
15:00	Simonetta Grilli	Highly sensitive detection of protein biomarkers by using an innovative pyro-electrohydrodynamic jet
15:20	Pierluigi Casolaro	Probing radiation effects on solid-state devices through impedance spectroscopy
15:40	Davide D'Ambrosio	Whispering-Gallery Mode Raman sensing and nanoparticle detection
16:00	Luca Basta	Flame synthesis of carbon nanoparticle thin films for innovative sensors
16:20	<i>Coffee break/Poster session</i>	
16:50 – 18:00	Session IV	Chair: <i>Ettore Sarnelli</i>
	Round Table: from science to industries	
18:00	Remarks and Greetings	

POSTER SESSION

High-responsivity and fast response DNTT-based phototransistor

A. Caldarelli, A. Vettoliere, F. Chiarella, L. Basta, P. Minutolo, M. Campajola, V. Izzo, G. Giusi, A. Aloisio, E. Sarnelli.

Xerosydrile and electro-optical transport properties

R. Germano, F. Ciccarelli, A. Calabrese, G. Malandra

Innovative Flexible Bottom-Up SERS Materials for Ultra-Sensitive Detection of Toxins and Pathogens in Biomedical and Food Matrices

A. D'Avino, A. Milano, V. Marchesano, B. Guilcapi, D. Sagnelli, M. Rippa, L. Petti

Flame synthesized nanostructured C-TiO₂ films for sensing and electronic device applications

A. Khalique, G. De Falco, P. Minutolo, M. Commодо, A. D'Anna

High-Sensitivity SERS Profiling of Shiga Toxins: Bridging Fundamental Validation and Real-World Clinical Application

A. Milano, A. D'Avino, V. Marchesano, D. Sagnelli, M. Rippa, B. Guilcapi, L. Zhou, M. Brigotti, S. Morabito, L. Petti

Design and characterization of N-type isoindigo semiconductors for organic electronics and sensing

F. Mocerino, M. Barra, F. Borbone, A. Carella, R. Centore, F. Chiarella, A. Landi, A. Peluso

An Autonomous Multi-Agent Framework for Deep Learning Architecture Discovery and Optimization in SERS-based Pathogen Detection

D. Sagnelli, B. Guilcapi, A. D'Avino, A. Milano, V. Marchesano, M. Rippa, L. Petti

Femtosecond laser nanotexturing for high performance and reusable silicon SERS platforms

M Valadan, X. Zhao, Y. He, J. JJ Nivas, A. Purushothaman, C. Altucci, K.Lin, Y. Lun, S. Amoroso, X. Wang

Hybrid nanocomposites: effect of different synthesis route on electrical memristive behaviour

A. Zotti, S. Aprano, A. Rafiq, S. Zuppolini, M. Zarrelli, M. G. Maglione, P. Tassini, A. Cassinese, A. Borriello

