

mini-Workshop ISASI 2024
Aula conferenze Area CNR Napoli 3
Via Campi Flegrei 34, Pozzuoli (NA)
Giovedì 18 aprile 2024



Institute of
Applied Sciences
and
Intelligent Systems
"Eduardo Caianiello"

PROGRAM

9:00 9:10 **Introductory and welcome address**

Session I – Functional devices, biosystems and imaging technologies

- 09:10 09:30 L. De Stefano, P. Dardano, I. Rea
Hybrid nano-micro-systems for diagnostic and therapeutic applications
- 09:30 09:50 A. Crescitelli, V. Di Meo, G. Sanità, I. Rendina, E. Esposito
Nanotechnology and Enhanced Spectroscopy
F. Donadio, G. Sanità, D. Passaro, M. Indolfi, I. Rendina, E. Esposito
EYE-Lab, Cryo EM facility: what we can do for Life and Material Science
- 09:50 10:10 V. Bianco, S. Coppola, S. Grilli, P. Memmolo, L. Miccio, V. Tkachenko, V. Vespi, P. Ferraro
Functionalized devices and intelligent systems
- 10:10 10:30 L. Petti, D. Sagnelli, A. D'Avino, A. Milano, B. Guilcapi, A. Piccolo, I. Perrotta, V. Marchesano, M. Rippa,
Smart Materials, Plasmonic Nanobiosensing and Imaging Techniques for multiple Applications
- 10:30 10:50 A. Tino, V. Marchesano, S. Santillo, G. Cacace, M. Blasio, N. Dell'Aversano, C. Tortiglione
Merging Nanoscience with Molecular Biology to design and validate novel devices for nanomedicine and bioelectronics

10:50 11:20 Coffee break

Session II – Computer vision and bioinformatics

- 11:20 11:40 M. De Gregorio, G. Coda, M. Mutarelli, A. Sorgente, P. Vanacore
Computational Intelligence and Computational Biology
- 11:40 12:00 C. Distante
Research activities of the ISASI Lecce's Unit
- 12:00 12:20 V. Bianco, S. Coppola, S. Grilli, P. Memmolo, L. Miccio, V. Tkachenko, V. Vespi, P. Ferraro
Computational methods for intelligent systems

Session III – Superconductive quantum technologies

- 12:20 12:40 A. Vettoliere, E. Troisi Lopez, C. Granata
Superconducting quantum technology for brain connectivity investigation and ferrotransmon qubit realization
- 12:40 12:50 C. Bonavolontà, A. Crescitelli, V. Di Meo, E. Esposito, M. Valentino, B. Ruggiero
Collective Quantum States in Superconducting Qubit Networks

12:50 14:10 Lunch break

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Session IV – Photonics: nanodevices and systems

- 14:10 14:30 M. Casalino, G. Coppola, T. Crisci, P. Dardano, L. De Stefano, M. Gioffrè, M. Iodice, I. Rea, R. Russo
uFLab since 2004: twenty years of manufacturing in Naples
- 14:30 14:50 C. Bonavolontà, E. De Tommasi, V. Mocella, I. Rendina, S. Romano, M. Valentino, G. Zito
Optics at nanoscale : photonic crystals, metasurfaces, and natural structures: from fundamentals to applications
- 14:50 15:00 B. Miranda, V. Mocella, I. Rendina, S. Romano, L. Sirleto, G. Zito
Harnessing Bound States in the Continuum: Unlocking Enhanced Light-Matter Interaction
- 15:00 15:15 G. Coppola, M. A. Ferrara, V. Pagliarulo, M. Paturzo
Advanced imaging and non-destructive analysis
- 15:15 15:30 M. A. Ferrara, L. Sirleto
Nonlinear optical laboratory and Artemis European Project: activities and perspectives

15:30 15:50 Coffee break

Session V – Photonics: spectroscopic technologies and energy applications

- 15:50 16:10 A. Marino, D. Paparo, M. Paturzo - Attività URT ISASI c/o Dip. Fisica Unina
Photonics for applied sciences and quantum technologies
- 16:10 16:30 M. Casalino, M. Gioffrè, M. Iodice, A. Caldarelli, R. Russo
Efficiency in solar energy conversion and storage

Session VI – Science and society

- 16:30 16:40 A. Argentieri, T. Crisci, S. De Luca, A. Marino, G. Sanità, P. Vanacore
Enhancing research with public communication

- 16:40 Discussion and conclusions