

ISASI MEETING 2022
Aula conferenze CNR - PIANO -1
Via Campi Flegrei 34, Pozzuoli



PROGRAM

Lunedì – 5 Dicembre 2022

14:30 14:40 Ivo Rendina
Welcome address

S1: DEVELOPMENT OF IMAGING, MICROSCOPY AND OPTICAL ANALYSIS: I

Pietro Ferraro - Chair

14:40 14:50 Domenico Paparo
Terahertz meets bio-microscopy: the MIMOSA project

14:50 15:00 Daniele Pirone
Stain-Free Intracellular Specificity for Tomographic Phase Microscopy in Flow Cytometry

15:00 15:10 Marika Valentino
AI-empowered polarization sensitive Digital Holography for material specificity: an application on textile microfibers

15:10 15:20 Massimo Rippa
Image sensing for Agricultural, Cultural Heritage and NDT applications

15:20 15:30 Emanuela Esposito
Cryo EM facility

15:30 15:40 Maria Marzano e Gennaro sanità
Cryo-EM sample preparation and Nanoparticles subcellular localization

15:40 15:55 Open discussion

15:55 16: 10 Coffe break

S2: FUNCTIONAL DEVICES, SENSORS AND BIOSYSTEMS: I

Carmine Granata – Chair

16:10 16:20 Berardo Ruggiero
Topology in Superconducting Quantum Arrays and Superconducting Qubits Network

16:20 16:30 Antonio Vettoliere
Josephson device with a strong ferromagnetic interlayer: toward a new transmon qubit

16:30 16:40 Ciro Tortora
Characterization of functional panels by an integrated approach based on thermography and numerical simulations

16:40 16:50 Stefano Lettieri
Sensori ottici di ossigeno basati su biossido di titanio

16:50 17:00 Open Discussion

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Martedì – 6 Dicembre 2022

S3: FUNCTIONAL DEVICES, SENSORS AND BIOSYSTEMS: II

Mario Iodice - Chair

- 09:30 09:40 Bruno Miranda
Optimization of Hydrogel Plasmonic Nanocomposites for Wearable Sensors and Food Quality Assessment
- 09:40 09:50 Ambra Vestri
Optical biosensing based on plasmonic metasurfaces
- 09:50 10:00 Valeria Nocerino
Plasmonic bimetallic biosensors for diagnostics and environmental monitoring
- 10:00 10:10 Sara Martino
Optical flexible biosensors for nucleic acid detection
- 10:10 10:20 Luigia Serpico
A polymeric, flexible patch for a pH-sensitive release of antioxidant selenium glycoconjugates
- 10:20 10:30 Claudia Tortiglione
New photodynamic approaches for antimicrobial treatments
- 10:30 10:40 Silvia Santillo
Xenobiotic Substances and Electrical Biological Responses
- 10:40 10:55 Open discussion
- 10:55 11:10 Coffe break

S4: FUNCTIONAL DEVICES, SENSORS AND BIOSYSTEMS: III

Lucia Petti - Chair

- 11:10 11:20 Federica Granata
Development of Multifunctional Micro-System for Biological and Biochemical application
- 11:20 11:30 Teresa Crisci
Near-infrared optical transceivers integrated on SOI waveguides for optical interconnects
- 11:30 11:40 Fabiana Graziano
Manipulation of fluids: Gold nanoparticles and thin functionalized polymeric films
- 11:40 11:50 Ilaria Rea
Porous biosilica nanoparticles for medicine
- 11:50 12:00 Open discussion

S5: APPLIED PHOTONICS & OPTOELECTRONICS: I

Giuseppe Coppola – Chair

- 12:00 12:10 Teresa Crisci
Resonant cavity enhanced graphene/Silicon Schottky photodetectors for telecom and datacom applications
- 12:10 12:20 Valentina Di Meo
Integration of plasmonic and dielectric metasurfaces on conventional and unconventional substrates for sensing applications
- 12:20 12:30 Maurizio Casalino
Development of photodetectors and electrodes for health/green applications
- 12:30 12:40 Sergio Balestrieri
Plasmonic Effect for Nanoparticle Displacement

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12:40 12:50 Edoardo De Tommasi
Graceful photonics in Nature: handling light by multiple pathways in diatoms

12:50 13:00 Daniela De Luca
Integrated PV-T collectors, challenges and opportunities

13:00 13:10 Open discussion

13:10 14:30 Lunch

S6: APPLIED PHOTONICS & OPTOELECTRONICS: II

Luca De Stefano- Chair

14:30 14:40 Mario Medugno
Integrated Graphene/4H-SiC Schottky photodetectors

14:40 14:50 Massimo Valentino
High responsivity Graphene/Si photodetectors from visible to near infrared

14:50 15:00 Domenico Sagnelli
Azopolymers and its actuation with coherent and uncoherent light

15:00 15:10 Antonio Caldarelli
Selective Solar Absorbers for efficient solar energy conversion and their thermal stability in vacuum

15:10 15:20 Valentina Marchesano
In vivo photothermal effect mediated by plasmonic nanoparticles

15:20 15:30 Antigone Marino
Quantum studies on structured light

15:30 15:50 Fabrizio Sgrignuoli, Chiara Schiattarella, Bryan Guilcapi Alulema
Advanced dielectric nanostructures: from fundamental studies to tailored applications

15:50 16:05 Open discussion

16:05 16:20 Coffe break

S7: INFORMATION SCIENCES & ARTIFICIAL INTELLIGENCE

Antonio Calabrese - Chair

16:20 16:30 Massimo De Gregorio
Use and Abuse of "Artificial Intelligence"

16:30 16:40 Antonio Sorgente
AI for Cultural Heritage and more

16:40 16:50 Andrea De Salve
PRE3 (PRE-CUBE): PREdiction, PREvention, PREdisposition

16:50 17:00 Margherita Mutarelli
Bioinformatics in rare genetic diseases and cancer genomics

17:00 17:15 Open discussion

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Mercoledì – 7 Dicembre 2022

S8: PLANNING OF EXISTING AND FUTURE PROJECTS

Ivo Rendina – chair

09:30 Crescitelli
09:35 Casalino
09:40 Vito Mocella
09:45 Berardo Ruggiero
09:50 Luca De stefano
09:55 Antonella Ferrara
10:00 Roberto Russo
10:05 De Tommasi
10:10 Andrea De Salve
10:15 Giuseppe Coppola
10:20 Mario Iodice

10:25 10:40 Coffe break

10:40 slot disponibile

10:45 slot disponibile

10:50 11:00 Ivo Rendina PNRR

11:00 11:20 Open discussion

S9: FINANCIAL MANAGEMENT, DISSEMINATION AND HIGH SPEED COMPUTING

Carmela Pugliese- Chair

11:20 11:50 Loredana Salzano e Francesco De Icco
ISASI Financial Management

11:50 12:00 Open Discussion

12:00 12:30 Antigone Marino, Simona De Luca, Gennaro Sanità
Everything You don't Know About Communication in ISASI* (*and wouldn't even dream to Ask)

12:30 12:40 Oliviero Talamo
Network infrastructures and supercomputing

12:40 12:50 Open Discussion

12:50 13:10 Ivo Rendina
Closing remarks and future perspectives

13:30 Meeting Lunch

I primi due giorni di meeting saranno trasmessi tramite uno streaming pubblico ad accesso libero su youtube al seguente link: https://www.youtube.com/watch?v=WFA-HuH_IVs&list=PLEbeQNI4rKVb6toUoxpw6EpVoc9PU0cYw

Il terzo giorno lo streaming non sarà attivato ed il meeting sarà solo in presenza.