Associazione Italiana di Scienza e Tecnologia (AIV)

XXV Conference, May 10 - 12, 2022, Naples, Italy

Materials, Interfaces, Processes in Industrial and Basic Research Applications

Conference Agenda - www.aiv.it

Consiglio Nazionale delle Ricerche

AVS

Politecnico di Torino

PFEIFFER VACUUM

allario science service supplier

TVP SOLAR

allectra A future with vacuum

Leybold

saes

HIDEN ANALYTICAL

mierola OPTOELECTRONICS

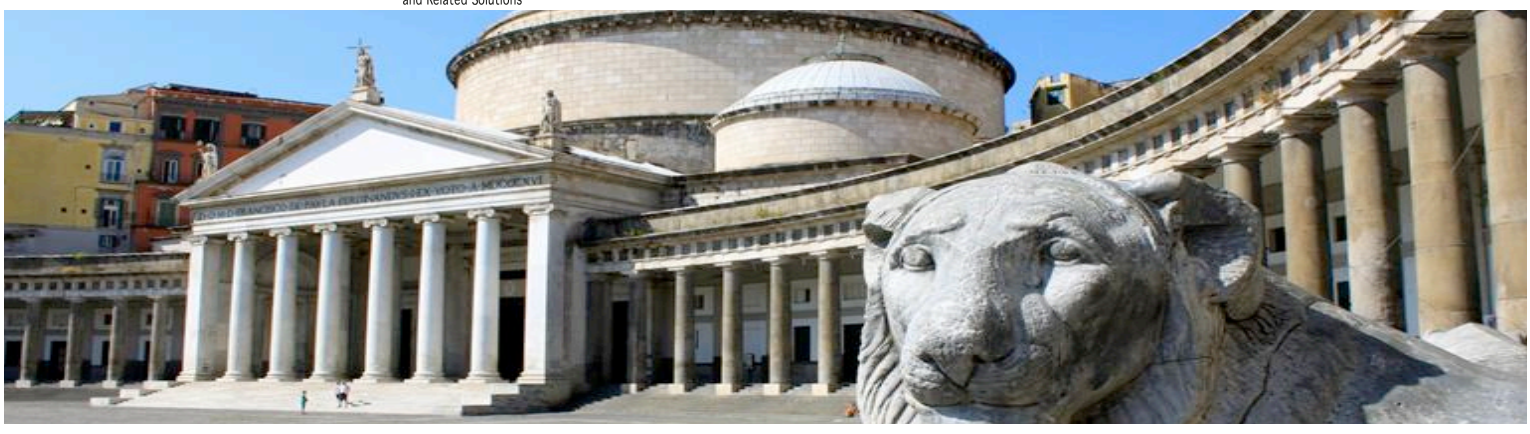
Laser nanoFab

schaefer

Gambetti Vacuum Technology and Related Solutions

Agilent

VACUUM FAB



Conference Venue
Complesso Monumentale di
S. Maria la Nova, May 10 - 12, 2022

The course will be held on 9th May 2022 from 13:30 to 18:30, at the **Complesso Monumentale di S. Maria la Nova**. The course will be held in ITALIAN language. **May 9th 2022- Room A**	
	Course in Basic Vacuum Technology *Speaker: Prof. G. Firpo (Università di Genova)*
13.30 -15.30	**Course in Basic Vacuum Technology**
15.30 - 15.45	Coffee break
15.45 - 18.30	**Course in Basic Vacuum Technology**
13:30 - 18.30	*A. Riggio (AIV Secretary)* AIV XXV Conference registration

Tuesday May 10th, 2022 - Morning - Room Refettorio Welcome note & Opening of the Conference	
Time	
9:00-9:20	**Prof. Antonio Pescapè** - Delegato del Rettore per l' Innovazione e Terza Missione, Università di Napoli Federico II **Dr. Espedito Vassallo** - Opening of the Conference by AIV President
Plenary Lecture	
9:20 - 10:00	*Antonio Abate (Helmholtz-Zentrum Berlin für Materialien und Energie GmbH, Berlin, Germany & Department of Chemical, Materials and Production Engineering, University of Naples Federico II, Napoli, Italy)* **Novel Materials and interfaces for photovoltaic solar cells**
10:00 - 10:30	**Coffee Break**

Tuesday May 10th, 2022 - Morning - Room Refettorio Surfaces: Science and Engineering **Chairmen: F. Giorgis (Politecnico di Torino), P. Ossi (Politecnico di Milano) - M. Rocca (Università di Genova)**		
Time	Speakers	Title
10:30 - 11:00	Letizia Savio - CNR-IMEM-Genova, Italy	2D carbon-based paltforms doped with transition metal atoms: Self-assembly of Pd cyclometallates at Ag (110)
11:00 - 11:20	Wei Liu, Giorgio Speranza – MERLin - University of Sydney, Australia & FBK, Trento, University of Trento & IFN - CNR, Povo, Trento	Tuning the oxygen content of reduced graphene oxide: comparing HI and NaBH4 chemical reduction processes
11:20 - 11:40	Stefano Stassi - Dip. di Scienza Applicata e Tecnologia (DISAT), Politecnico di Torino, Italy	Crystallinity control in silicon and silicon carbide devices through selective laser annealing
11:40 - 12:10	Carlo Carbone - CNR-Istituto di Struttura della Materia (ISM), Trieste, Italy	Spin-orbit effects in low-dimensional structures
12:10 - 12:30	Luca Repetto - Department of Physics – Università di Genova, Italy	Atom Mobility in Ion Irradiated Solid Films
12:30 - 13:30	**Lunch break**	

Tuesday May 10th, 2022 - Afternoon - Room Refettorio Surfaces: Science and Engineering Chairmen: F. Giorgis (Politecnico di Torino), P. Ossi (Politecnico di Milano) - M. Rocca (Università di Genova)		
13:30 - 14:00	Andrea I. Melloni - Politecnico di Milano, Dipartimento di Elettronica, Informazione e Bioingegneria, Milano, Italy	Surface effects in integrated photonic waveguide structures
14:00 - 14:20	Marine Schott - Department of Physics – Università di Genova, Italy	Focused ion and focused electron beam induced depositions: an overview
14:20 - 14:40	Sofia Bertone - Dept. of Applied Science and Technology, Politecnico di Torino, Torino, Italy	Smart plasmonic surfaces for SERS-based detection of tetracyclines
14:40 - 15:00	Matteo Segantini – Dept. of Applied Science and Technology, Politecnico di Torino, Torino, Italy	Gating Organic Electrochemical Transistors with Ti3C2 MXene Electrodes
15:00 - 15:30	**Coffee break**	
15:30 - 16:00	Ilaria Rea - CNR Institute for Microelectronics and Microsystems, Napoli, Italy	Bioengineered inorganic nanomaterials for healthcare applications
16:00 – 16:20	Giulia Neri - Dept. of Chemical, Biological, Pharmaceutical and Environmental Sciences, University of Messina, Messina, Italy.	Surface Modification of Carbon-based Nanomaterials by Cyclodextrin Grafting
16:20 – 16:40	Daniel Montesi - Dept. of Applied Science and Technology, Politecnico di Torino, Torino, Italy	Metal-dielectric nanostructures for label-free SERS detection of miRNAs for early cancer diagnostics
16:40 – 17:00	Jijil JJ Nivas - Dip. di Fisica, Università di Napoli Federico II, Complesso Universitario di Monte S. Angelo, Napoli & CNR-SPIN, UOS Napoli, Italy	Femtosecond laser surface structuring of a topological insulator crystal
17:00 – 17:20	M. A. Cutolo - Department of Electrical Engineering and Information Technology (DIETI), University of Naples Federico II, Naples, Italy	Hierarchical binary structures as SERS-active substrates

Tuesday May 10th, 2022 - Morning - Room Caputo Innovation in Vacuum Technology and new challenges in large systems (particle accelerators, large interferometers and fusion energy research) Chairmen: G. Firpo (Università di Genova), A. Liedl (INFN Frascati), M. Mura (Saes Group)		
Time	Speakers	Title
10:30 - 11:00	Karl Jousten - Physikalisch-Technische Bundesanstalt, Berlin, Germany	Development of a new kind of ionisation vacuum gauge.
11:00 - 11:20	Fabrizio Siviero - SAES Getters, Lainate (MI). Consorzio RFX. Karlsruhe Institute of Technology, Institute for Technical Physics, Eggenstein-Leopoldshafen, Germany	Testing of a large Non-Evaporable Getter pump mock-up in view of application in modern Neutral Beam Injectors
11:20 - 11:40	Enrico Leo - INFN Napoli Gruppo Collegato di Salerno & Physic Dept. University of Salerno, Fisciano, Italy & GSI Helmholtzzentrum für Schwerionenforschung GmbH, Darmstadt, Germany	Test protocol for the 4.5K cryogenic leak test of beam vacuum chamber in SIS100 quadrupole doublet modules
11:40 - 12:00	Giuseppe Firpo - Dipartimento di Fisica - Università di Genova, Genova, italy	High vacuum set up for O2 and CO2 transmission rate measurements of films for food packaging.
12:00 - 12:20	Beatrice Busetto - SAES Getters, Lainate (MI), Italy	How to assess the compatibility of sintered getter pumps with particle-sensitive vacuum applications?
12:30 - 13:30	Lunch break	
Tuesday May 10th, 2022 - Afternoon - Room Caputo Innovation in Vacuum Technology and new challenges in large systems (particle accelerators, large interferometers and fusion energy research) Chairmen: G. Firpo (Università di Genova), A. Liedl (INFN Frascati), M. Mura (Saes Group)		
13:30 - 14:00	Janez Setina - Institute Metrology Institute of the Republic of Slovenia/IMT/Laboratory of pressure metrology, Ljubljana, Slovenia	Outstanding properties of recently developed "standardized ionization gauge"
14:00 - 14:20	Cristian Maccarrone - ESRF The European Synchrotron Grenoble - France	Overview of vacuum at Extremely Brilliant Source (EBS) storage ring at ESRF: from design to full operation

14:20 - 14:40	Antonio Pasqualetti - EGO-Virgo, Cascina (PI) – Italy	Virgo Vacuum System: Status and plans until 2025
14:40 - 15:00	M. Angelucci - LNF-INFN, Frascati RM, Italy	Electron stimulated desorption studies on porous materials used in the next generation accelerators as cryogenic vacuum component
15:00 - 15:30	**Coffee break**	
15:30 - 16:00	Aniello Grado - INAF-Osservatorio Astronomico di Capodimonte, Napoli, Italy	Einstein Telescope: scientific and technical challenges
16:00 – 16:20	L. Spallino - LNF-INFN, Frascati RM, Italy	Cryogenic vacuum constraints to mitigate frost formation on the optics of future gravitational wave detectors
16:20 – 16:40	Passarelli - INFN Napoli	Coated and laser structured surface characterization for particle accelerators
16:40 – 17:00	F. Niccoli - European Organization for Nuclear Research (CERN), Genève, Switzerland & Dept. of Mechanical, Energy and Management Engineering of University of Calabria, Rende, Italy & 2SMartEST Srl, SMA-based SMArt Engineering Solutions and Technologies, Rende, Italy.	NiTi Shape memory alloy pipe couplers for ultra-high vacuum systems: development and implementation

Tuesday May 10th, 2022 - Room A-B Poster Session 17:20-18:30		
1-SS	Carla Malinverni - Dept. of Applied Science and Technology, Politecnico di Torino, Torino, Italy	New solutions for joining oxide-based ceramic matrix composites that operate under extreme conditions to develop a sustainable process for the steelmaking industry
2-NFT	Fabio Degli Agostini - Consorzio RFX, Corso Stati Uniti 4 35133 Padova Italy	Metrology activities for MITICA, SPIDER and RFX-Mod2 experiments
3-NFT	F. Fellin - Consorzio RFX - CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA	Conceptual design of a cooling system for a new NEG vacuum pump system of the SPIDER experiment
4-NFT	M. Maniero - Consorzio RFX - CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA	Vacuum system optimization for negative ion source NIO1
5-NFT	Luisa Migliorato - Centro Ricerche della Fusione, Università degli Studi di Padova at Consorzio RFX	Virtualization enviroments in the Neutral Beam research activity for the ITER NBTF project
6-NFT	Gianluca Moro - Centro Ricerche della Fusione, Università degli Studi di Padova at Consorzio RFX	A semantic approch to scientific logbook used in physics experiments
7-NFT	Gaetano Passalacqua- Consorzio RFX (CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA), Padova, Italy	Cooling Plant, for SPIDER and MITICA experiments
8-NFT	R. Rizzieri - Consorzio RFX (CNR – ISTP Padova, Italy, ENEA – FSN, Italy, INFN, UNIPD -Università di Padova, Acciaierie Venete spa), Padova, Italy	Metal release rate analyses in borated cooling water for DTT vacuum vessel
9-NFT	Mauro Breda - Consorzio RFX (CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA), C.so Stati Uniti 4, Padova, Italy	Integrated Commissioning of PRIMA Cooling System for SPIDER and MITICA experiment.
10-NFT	A. Tiso - Consorzio RFX (CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA), C.so Stati Uniti 4, Padova, Italy	Mechanical design of the cavity ring down spectroscopy diagnostic for the negative ion source SPIDER
11-NFT	Paola Simionato - Consorzio RFX (CNR, ENEA, INFN, Università di Padova, Acciaierie Venete SpA), C.so Stati Uniti 4, Padova, Italy	Human Machine Interface for PRIMA Cooling System of SPIDER and MITICA experiment

12-SS	M. Rocca - Dip. di Fisica, Università di Genova & IMEM-CNR Unità di Genova, Italy	Prominence of Terahertz Acoustic Surface Plasmon excitation in Gas-Surface interaction with Metals
13-SS	Meilin Hu - Dept. of Physics "Ettore Pancini"- University of Naples Federico II, Via Cinthia 80126, Naples, Italy	Laser induced periodic surface processing of silicon
14-SS	Barbara Rossi – Dept. of Electrical Engineering and Information Technology, University of Naples - Federico II.	A 3D Lab-on-Fiber microstructure for ultrasound detection
15-SS	Maria Principe - Engineering Department, University of Sannio, 82100 Benevento, Italy	Optical Fiber Meta-Tip for biological sensing
16-REE	Daniela De Luca - Physics Department University of Napoli "Federico II" & Institute of Applied Sciences and Intelligent Systems-CNR, Naples, Italy	Optimization of a Solar Selective Absorbers for Evacuated Flat Plate Collectors
17-REE	Eliana Gaudino - Industrial Engineering Department University of Napoli "Federico II" & Institute of Applied Sciences and Intelligent Systems-CNR, Naples, Italy	Ag thin film coating to reduce thermal emittance
18-REE	Stefano Lettieri - Istituto per le Scienze Applicate e i Sistemi Intelligenti (CNR-ISASI), U.r.T UNINA, Complesso Universitario di Monte S. Angelo, Napoli, Italy.	Reduction of TiO2 by a low-temperature degradation of adsorbed organic solvents
19-REE	Andrea Lamberti - Istituto Italiano di Tecnologia, Center for Sustainable Future Technologies, Torino, Italy & Politecnico di Torino (DISAT), Torino, Italy	Graphene-oxide based membrane as scalable ion-selective material with tunable permselectivity
20-REE	Maddalena Patrini - Dipartimento di Fisica, Università di Pavia, Via A. Bassi 6, I 27100 Pavia	Energy Harvesting from Mechanical Strain of Electrostrictive Polymeric Nanocomposites
21-REE	Teresa Mundo - Tresol srl, Via Francesco Caracciolo, 80122 Napoli, Italy	An innovative High Vacuum flate plate solar thermal collector for highly efficient energy conversion

Tuesday May 10th, 2022 - Room Caputo	
18:30-19:00	AIV Member meeting

Wednesday May 11th, 2022 - Room Refettorio Plenary Lecture	
8:40 - 9:15	*Giuseppe Zollino/Chiara Bustreo (Consorzio RFX, Padova & Department of Industrial Engineering, University of Padova)* **Long term CO2-free power generation scenarios for Italy**

Wednesday May 11th, 2022 - Morning - Room Caputo Nuclear Fusion Technology Chairmen: S. Dalbello (Consorzio RFX, Padova), E. Vassallo (ISTP-CNR)		
Time	Speakers	Title
9:15 - 9:35	Francesco Romanelli - Dipartimento di Ingegneria Industriale Universita' degli Studi di Roma "Tor Vergata"	Greetings and introduction to DTT S.c. a r.l. Consortium
9:35 - 10:00	Gian Mario Polli - ENEA-Frascati	DTT: Overview and Status of the Project
10:00 - 10:20	**Coffee Break**	
10:20 - 10:45	Robert J. H. Pearce - ITER Organization, Route de Vinon sur Verdon, CS 90 046 - 13067 St. Paul lez Durance cedex, France	THE CHALLENGES AND SUCCESSES OF DESIGNING AND BUILDING THE WORLD'S LARGEST VACUUM SYSTEM (ITER)
10:45 - 11:10	Andrea Belpane - University of Tuscia-DEIM, Viterbo, Italy	Conceptual design of DTT vacuum system
11:10 - 11:35	Lori Gabellieri - (ENEA and DTT Scarl), Marco Valisa Consorzio RFX & ISTP-CNR	Challenges of diagnostics integration in DTT
11:35 - 12:00	Saul Garavaglia - Istituto per la Scienza e Tecnologia dei Plasmi CNR, Milano, Italy	Development of the ECRH system for DTT
12:00 - 12:25	Alessandro Lo Bue - Fusion for Energy (F4E) Fusion for Energy, Barcelona, Spain	Importance of Metrology for procurement contracts and installation activities for ITER
12:30 - 13:30	**Lunch break**	

Wednesday May 11th, 2022 – Afternoon - Room Caputo Nuclear Fusion Technology Chairmen: S. Dalbello (Consorzio RFX, Padova), E. Vassallo (ISTP-CNR)		
13:30 - 14:00	Rudolf Neu - Max-Planck-Institut für Plasmaphysik, Garching, Germany.	Progress in R&D on Plasma Facing Materials and Components for Fusion Devices
14:00 - 14:20	Diego Marcuzzi - Consorzio RFX-ITER Neutral Beam Test Facility	SPIDER operation and MITICA: overview (Lessons learned after three years of SPIDER operation and the first MITICA integrated tests)
14:20 - 14:40	Emanuele Sartori - Consorzio RFX-ITER Neutral Beam Test Facility	The SPIDER Vacuum Enhancement: a NEG pump based project
14:40 - 15:00	Andrea Dal Molin - Istituto per la Scienza e Tecnologia dei Plasmi CNR, Milano, Italy	State of the art of nuclear diagnostics for fusion reactors
15:00 - 15:20	Andrea Rizzolo - Consorzio RFX-Padova	RFX-mod2: status of machine upgrade
15:20 - 15:40	Valentina Casalegno - Dep. of Applied Science and Technology, Politecnico di Torino, Turin, Italy	Triple ion beam irradiation of a glass-ceramic for nuclear fusion technology
15:40 -16:00	A. Stinchelli - Center for Nanoscience and Technology, IIT, Milano, Italy	The interaction between materials and Lithium-based breeders for fusion power plants

Wednesday May 11th, 2022 - Morning - Room Refettorio

Additive Manufacturing: Materials, Technologies and Applications

Chairpersons: M. Cocuzza (Politecnico di Torino/CNR-IMEM), V. Bertana (Politecnico di Torino), I. Roppolo (Politecnico di Torino)

Time	Speakers	Title
9:15 - 9:40	Ferdinando Auricchio - University of Pavia, Department of Civil Engineering and Architecture, Pavia, Italy.	Additive Manufacturing: Modeling, Applications, and Technologies. An overview of UniPV activities.
9:40 – 10 :05	Ulf Hinze - Universität Hannover/Laser nanoFab GmbH, Germany	3D High Precision Microlithography with Ultrashort Laser Pulses
10:05 - 10:25	**Coffee Break**	
10:25 - 10:50	Annalisa Chiappone - University of Cagliari, Department of Chemical and Geological Sciences, Cagliari Italy	DLP printing of shape memory polymers
10:50 - 11:15	Diana Cafiso - Italian Institute of Technology, Genova Italy	3D Printing Approaches for Soft Robotics
11:15 - 11:40	Francesco Galliani, Anna Costanza Russo Comec Innovative srl, Chieti Italy	AEROSOL JET PRINTING: the new frontier of additive manufacturing
11:40 - 12:05	Cristian Mendes Felipe - Basque center for materials, applications & nanostructures, Leioa, Spain	3D-printable bio-based functional materials
12:05 - 12:30	Victor Sans - Universitat Jaume I, Institute of Advanced Materials (INAM), Castellon, Spain	Advanced materials for additive manufacturing with applications in catalysis, antimicrobial and optoelectronics
12:30 - 13:30	**Lunch break**	

Wednesday May 11th, 2022 - Afternoon - Room Refettorio Additive Manufacturing: Materials, Technologies and Applications Chairpersons: M. Cocuzza (Politecnico di Torino/CNR-IMEM), V. Bertana (Politecnico di Torino), I. Roppolo (Politecnico di Torino)		
13:30 - 14:00	Boris Chichkov - Leibniz University Hannover-Institute of Quantum Optics, Hannover, Germany	High - resolution additive manufacturing technologies and applications
14:00 - 14:30	Giancarlo Rizza - Institut Polytechnique de Paris, Laboratoire des Solides Irradiés (LSI), Palaiseau, France	4D printing of magneto-actuated devices with tunable mechanical and magnetic properties
14:30 - 14:50	Paolo Bariani - Schaefer South-East Europe Srl, 45100 Rovigo, Italy	How 3D Non-contact surface metrology improves additive manufacturing processes
14:50 - 15:15	Alejandra Salas Chaves - Politecnico di Torino, Department of Applied Science and Technology, Torino, Italy	3D printable polymeric MXene/compsites towards catalytic applications
15:15 - 15:40	Ignazio Roppolo - Politecnico di Torino, Department of Applied Science and Technology, Torino, Italy	Dyes in light activated 3D printing: beyond the precision

Wednesday May 11th, 2022 – Afternoon - Room Refettorio Horizon Europe Project Management Chairperson: V. Bertana (Politecnico di Torino)		
Time	Speakers	Title
16:00 – 16:15	Laura Vivani - Managing Director, Moverim Sprl, Bruxelles, Belgium.	Processes of Horizon Europe and what is new, and an overview of the actual situation and on the perspectives.
16:15 – 16:30	Haiyan Ou - Associate Professor, Technical University of Denmark - DTU, Copenaghen, Denmark	SiComb - Developing an innovative chip-based optical frequency comb. As example of breakthrough EU project
	Naples Underground Tour and Social Dinner	

Thursday May 12th, 2022 - _Morning - Room Caputo Surfaces: Science and Engineering **Chairman: G. Firpo (Università di Genova)**		
Time	Speakers	Title
9:00-9:20	Cristina Balagna – Dept. of Applied Science and Technology-Politecnico di Torino, Turin, Italy	Antimicrobial/virucidal composite coatings via co-sputtering technique
9:20-9:40	Matteo Pedroni - Istituto per la Scienza e Tecnologia dei Plasmi CNR, Milano, Italy	Surface modification of biodegradable polymers by low temperature plasma for improving their performances as food packaging
9:40-10:00	C. Piferi - Dip. di Fisica, Università degli Studi di Milano-Bicocca, Milano, Italy	Plasma-polymers interactions for nano and micro texture
10:00-10:20	Milena Salvo – Dept. of Applied Science and Technology-Politecnico di Torino, Turin, Italy	Glass-based coating and joining materials for energy conversion and storage systems
10:20-10:50	**Coffee break**	
11:00-11:20	Alessandro De Zanet - Dept. of Applied Science and Technology, Politecnico di Torino, Turin, 10129, Italy	Plasma etching of SiC/SiC composites to improve joint strength
11:20-11:40	Carlo Spampinato - Dip. Scienze Matematiche e Informatiche, Scienze Fisiche e Scienze della Terra, Università di Messina & CNR-IMM Catania.	Spongy TiO_2 layers deposited by gig-lox sputtering processes
11:40-12:00	R. Barni – Dip. di Fisica, Università degli Studi di Milano-Bicocca, Milano, Italy	Mass spectroscopy of oxygen plasmas with energetic ions
12:00-12:20	I Komang Januariyasa - Dept. of Physics "Ettore Pancini"- University of Naples Federico II, Via Cinthia 80126, Naples, Italy	Bioinspired Textures on Photosensitive Surface
12:20-12:40	Francesco Montagner - Institute of Condensed Matter Chemistry and Technologies for Energy, National Research Council, Padova, Italy	HiPIMS deposition of AlCoCrFeNi high entropy alloy thin films for marine environment applications.
12:40-13:50	**Lunch break**	

Thursday May 12th, 2022 – Morning - Room Refettorio Renewable Energies and Environment Chairpersons: Paola Delli Veneri (ENEA Portici), Stefano Lettieri (CNR-ISASI), A. Terrasi (Università di Catania)		
Time	Speakers	Title
8:30-9:00	Andrea Balducci - Friedrich-Schiller University Jena, Institute for Technical Chemistry and Environmental Chemistry Center for Energy and Environmental Chemistry Jena (CEEC Jena), Germany.	Industrial requirement of materials and electrolyte for supercapacitors
9:00-9:20	Vanira Trifiletti (Università di Milano-Bicocca)	Earth-abundant chalcogenide thin films with tuneable bandgap for Photovoltaic applications.
9:20-9:40	Roberto Russo (CNR-ISASI, Napoli)	Development of innovative high-vacuum based solutions for the industrial clean energy transition
9:40-10:00	L. Bruno/Gisella Mari - Dipartimento di Fisica e Astronomia "Ettore Majorana", Università di Catania, & CNR-IMM	Enhanced Electrocatalytic Intrinsic Activity of NiO Microflowers on Graphene Paper for Oxygen Evolution Reaction
10:00-10:20	Alessia Sannino - Dipartimento di Fisica "Ettore Pancini", Università degli studi di Napoli "Federico II"	Remote Sensing Atmospheric Monitoring in Naples in the frame of the ACTRIS Research Infrastructure
10:20-10:50	**Coffee break**	
10:50-11:20	Alberto Naldoni - Czech Advanced Technology and Research Institute Palacký University Olomouc (Czech Republic)	Shaping the light energy flow with plasmonic nanostructures for the production of solar fuels.
11:20-11:40	Salvatore Valastro - Dipartimento di Fisica e Astronomia "Ettore Majorana", Università di Catania, & CNR-IMM	CsPbI3 for Perovskite Solar Cells: applications and perspectives
11:40-12:00	Gabriele Scarpati - University of Naples "Parthenope", Naples, Italy	Innovative Methods and Materials for Hydrogen Storage
12:00-12:20	Melanie Micali - Dipartimento di Fisica e Astronomia "Ettore Majorana", Università di Catania, & CNR-IMM	Zr-doped Indium Oxide as transparent electrodes for photovoltaics
12:20-12:40	Luigi Angelo Castriotta (Roma 2)	Stable Perovskite Solar Modules: strategy and optimization route from n-i-p to p-i-n architecture on rigid & flexible substrate
12:40-13:50	**Lunch break**	

Thursday May 12th, 2022 – Afternoon - Room Refettorio Renewable Energies and Environment Chairmen: Paola Delli Veneri (ENEA Portici), Stefano Lettieri (CNR-ISASI), A. Terrasi (Università di Catania)		
13:50-14:20	Vincenza Armenise - Dipartimento di Chimica dell'Università di Bari, Italy	Metal halide perovskites in photocatalytic technologies
14:20-14:40	G. Di Mari - Dip. di Fisica e Astronomia "E._Majorana", Università degli Studi di Catania, & CNR-IMM	Low-cost and high throughput synthesis of ZnO nanostars for Energy Storage applications.
14:40-15:00	Stefano De la Pierre (PoliTO)	Torsional behaviour of a glass-ceramic joined alumina coated steel for solid oxide cells
15:00-15:20	Francesca Fasulo – Dipartimento di Scienze Chimiche, Università degli Studi di Napoli "Federico II"	Na uptake at TiO_2 anatase surfaces under electric field control: a first-principles study
15:20-15:40	Coffee break	
15:40-16:00	Giordano Marina (UniGE)	Photoconversion and light harvesting in semiconductors 2D
16:00-16:20	Gerardo Maria Pagano - Center for Nanoscience and Technology @PoliMi, IIT, Milano, Italy	High performance nanostructured carbon electrode for Vanadium Redox Flow Batteries
16:20-16:40	Luisa Baudino - DISAT Dipartimento di Scienza Applicata e Tecnologia, Politecnico di Torino, Torino, Italy	Sustainable methods for lithium recovery from unconventional resources
	Closing remarks of the AIV President	

Scientific committee

E. Vassallo (Chair)	CNR-ISTP
M. Anderle	AIV
V. Bertana	Politecnico di Torino
M. Cocuzza	Politecnico di Torino/CNR-IMEM
S. Dal Bello	Consorzio RFX, Padova
L. De Stefano	CNR-ISASI
P. Delli Veneri	ENEA Portici
F. Di Fonzo	IIT, CNST@polimi
G. Firpo	Università di Genova
F. Fracassi	Università di Bari
F. Giorgis	Politecnico di Torino
S. Lettieri	CNR-ISASI & Univ. di Napoli
A. Liedl	Laboratori Nazionali di Frascati-INFN
M. Mura	Saes Group
P. Ossi	Politecnico di Milano
F. Pirri	Politecnico di Torino & IIT
M. Rocca	Università di Genova
I. Roppolo	Politecnico di Torino
G. Speranza	FBK, Trento
A. Terrasi	Università di Catania

Organizing committee

S. Ferrero, A. Lamberti, G. Melis and L. Scaltrito (Politecnico di Torino) & G. Bonizzoni (AIV)

Organizing Secretary

Angela Riggio, Mail segreteria@aiv.it, M +39 348 5465168, www.aiv.it

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