



Seconda Conferenza Nazionale della Rete Italiana del Fotovoltaico per la Ricerca e L'Innovazione

PROGRAMME

Bolzano - NOI Techpark / Eurac Research

11 - 12 June 2024



Monday 10 June

14:00 - 18:00

Registration, posters, Lab visits
NOI TECHPARK - Via Volta 15/A

Tuesday 11 June

09:00 - 10:15

PLENARY SESSION

09:00 - 09:15

Institutional greetings

09:15 - 09:35

Giorgio Graditi, ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development

Fonti rinnovabili: iniziative e misure per una economia a zero emissioni di carbonio

09:35 - 09:50

David Moser, Eurac Research, ETIP-PV

A strategic research and innovation agenda for PV

09:50 - 10:15

Christian Breyer, LUT

Global impact of solar PV as a central core of the Power-to-X Economy

10:15 - 11:15 Panel discussion

Qual è il ruolo del FV nella transizione energetica: fuoriclasse o gregario?

Moderators:

Andrea Balocchi, Infobuildenergia, **David Moser**, ETIP-PV

Speakers:

Marina Foti, 3SUN, **Nicola Baggio**, FUTURASUN, **Michele Torri**, TORRISOLARE, **Paola Delli Veneri**, ENEA, **Nicola Tomasone**, REGALGRID, **Federico Fazi**, EFSOLARE

11:15 - 11:45

Poster and sponsors
SOLITEK, REGALGRID Presentations

11:45 - 13:15

ORAL SESSION 1A

Moderator: **Aldo di Carlo**

11:45 - 12:00

Alessandra Alberti, CNR-IMM

Polyurethane-encapsulated mesoporous carbon-based perovskite solar cells for low-cost and stable architectures

12:00 -12:15

Matteo Degani, University of Pavia

Use of Machine Learning for the smart selection of surface passivant in efficient perovskite solar cells

12:15 -12:30

Aurora Rizzo, CNR-Nanotec

A double compatibilization strategy to boost the performance of p-i-n solar cells based on perovskite deposited in humid ambient air

12:30 -12:45

Adriana Pecoraro, University of Naples Federico II

Understanding interfacial dynamics in Perovskite Solar Cells with first-principles methods

12:45 -13:00

Noah Tormena, University of Padova

Semi-transparent FAPbBr₃ perovskite solar cells: degradation and recovery

13:00 - 13:15

Annamaria Petrozza, Italian Institute of Technology (IIT)

Defects Activity in Metal Halide Perovskites

13:15 -14:15

Lunch

14:15 - 15:45

ORAL SESSION 1B

Moderator: **Simona Binetti**

14:15 -14:30

Carla Gobbo, University of Milano-Bicocca

Exploring Strategies for High-Efficiency Flexible Kesterite Solar Cells from Solution Process

14:30 -14:45

Elena Del Canale, CNR-IMEM

Mechanochemistry, an innovative playground for Cu(In,Ga)(S,Se) low-cost photovoltaic varnishes for stand-alone and tandem photovoltaic applications

14:15 -15:00

Roberto Speranza, Polytechnic University of Turin

Homo-tandem-bifacial dye-sensitized solar cell: A new paradigm to boost photoconversion efficiency

15:00 -15:15

Gianluca Foti, Univeristy of Parma

Study over different growth steps for Sb₂Se₃ suitable for photovoltaic purpose

15:15 -15:30

Laura Lancellotti, ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development

Work Function Shift as Dipole Effect at N-Side Back Contact in Dopant Free Si HJ Solar Cells

15:30 -15:45

Nadia Barbero, University of Turin

Synthesis of stable Hole Transporting Materials for Inverted Perovskite Solar Cells

15:45 -16:15

Poster and sponsors

FUTURASUN, RISE Technology Presentations

16:15 - 17:03

ORAL SESSION 3+1

Moderator: **Paola Delli Veneri**

16:15 -16:27

Lucia V. Mercado, ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development

Novel organic and inorganic spectrally-selective thin film photovoltaics for greenhouse application

16:27 - 16:39

Francesco Di Giacomo, Solertix

Cost effective bifacial 4T tandem with power output 330 W/m2

16:39 - 16:51

Alex Sangiorgi, CNR-ISSMC

Inkjet-printing for highly transparent Dye-Sensitized Solar Cells

16:51 - 17:03

Ivan Foglia, i-pergola

Benefits of Studying the LAOR in Agrivoltaic Systems

17.03 - 17.45 Panel discussion on 'Applications of PV'

Moderator: **Paola Delli Veneri**

Speakers:

Lucia V. Mercado, ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development

Francesco Di Giacomo, Solertix

Alex Sangiorgi, CNR-ISSMC (*invited*)

Ivan Foglia, i-pergola

Stefano Mariani, Polytechnic University of Milan

17:45 -18:30

Poster

09:00 - 09:48

SESSION 2+3

Moderator: **Giovanni Spagnuolo**

09:00 - 09:12

Giuseppe Tina, University of Catania

Experimental and numerical performance assessment of mono and Bifacial Photovoltaic Floating Systems in freshwater basins

09:12 - 09:24

Alessandro Lorenzo Palma, ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development

Application of a demand-response-optimized electrical load profile to a plant supplying an energy micro-community

09:24 - 09:36

Marco Pierro, Eurac Research

Ground-breaking approach to enable fully solar energy communities

09:36 - 09:48

Giosue Maugeri, RSE

Optimization of Photovoltaic Monitoring through Machine Learning Model Re-Training Techniques for Anomaly Detection

09:48 - 10:30 Panel discussion on 'Effective control of distributed PV generation'

Moderator: **Giovanni Spagnuolo**

Speakers:

Giuseppe Tina, University of Catania

Alessandro Lorenzo Palma, ENEA-Italian National Agency for new Technologies, Energy and Sustainable Economic Development

Marco Pierro, Eurac Research (*invited*)

Giosue Maugeri, RSE

Hanna Ellis, Joint Research Centre (JRC) - Ispra

Ruggero Nissim, ENEA - Italian National Agency for New Technologies, Energy and Sustainable Economic Development

10:30 - 11:30

Poster and sponsors

CONVERT, DELTAINFORMATICA/SAIDEA Presentations

11:30 - 12:10

ORAL SESSION 4+5

Moderator: **Massimo Mazzer**

11:30-11:40

Elisabetta Brivio, RSE

The Environmental Impacts of C-Si Innovative PV Technologies Considering Different Module Production Sites

Wednesday 12 giugno

WED

11:40-11:50

Alessandro Virtuani, Swiss Federal Institute of Technology in Lausanne
Integrated-Photovoltaics in Buildings and Infrastructures (IPV): A Carbon Footprint Perspective

11:50-12:00

Giacomo Di Foggia, University of Milano-Bicocca
Transitioning to Carbon-Neutral Energy Systems: Analyzing 2030 Renewable Energy Targets

12:00-12:10

Massimo Plazzer, Autonomous Province of Trento - Provincial Agency for Water Resources and Energy
Powering Trentino: large-scale detailed estimation of the photovoltaic potential of the entire Province

12:10 - 13:00 Panel discussion on 'Role of sustainability in high penetration scenarios'

Moderator: **Massimo Mazzer**

Speakers:

Elisabetta Brivio, RSE

Alessandro Virtuani, Swiss Federal Institute of Technology in Lausanne

Massimo Plazzer, Autonomous Province of Trento - Provincial Agency for Water Resources and Energy

Giacomo Di Foggia, University of Milano-Bicocca

David Moser, EURAC Research

Paolo Picchi, ETA-Florence Renewable Energies

13:00 - 14:00

Closing and lunch

Massimo Mazzer, David Moser and next retelFV conference host

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