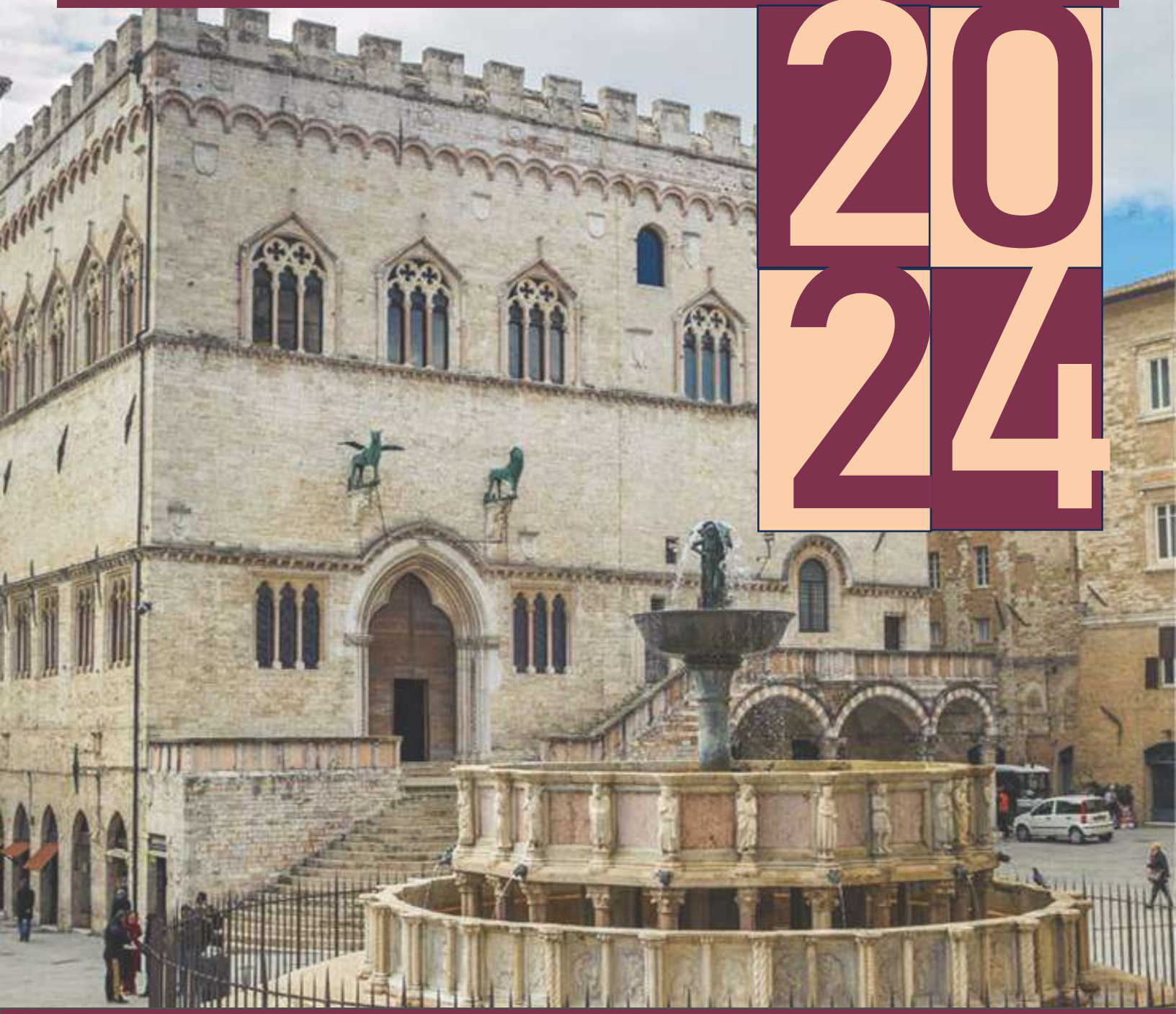
7TH INTERNATIONAL CONFERENCE ON PEROVSKITE SOLAR CELLS AND OPTOELECTRONICS - PSCO

2024



PROGRAM

From 16th to 18th September 2024
Hotel Giò - Centro Congressi
Perugia, Italy

SCIENTIFIC COMMITTEE

PSCO 2024

Henry Snaith

University of Oxford, UK

Filippo De Angelis

University of Perugia, Italy

Annamaria Petrozza

IIT, Italy

Md. K. Nazeeruddin

EPFL, Switzerland

INVITED LECTURES

PSCO 2024

Aldo Di Carlo
ISM-CNR, IT

Annalisa Bruno
NTU, SG

Atsushi Wakamiya
Kyoto University, JP

Edoardo Mosconi
University of Perugia, IT

Henry Snaith
University of Oxford, UK

Hyunjung Shin
SKKU, KR

Jianpu Wang 王建浦
Nanjing Tech University, CN

Jinsong Huang
University of North Carolina, US

Kai Zhu
NREL, US

Lorenzo Malavasi
University of Pavia, IT

Maksym Kovalenko
ETH, CH

Maria Antonietta Loi
University of Groningen, NL

Marina S. Leite
University of California, US

Md. K. Nazeeruddin
EPFL, CH

Michael Grätzel
EPFL, CH

Monica Lira Cantu
ICN2, ES

Paola Vivo
Tampere University, FI

Prashant Kamat
University of Notre Dame, US

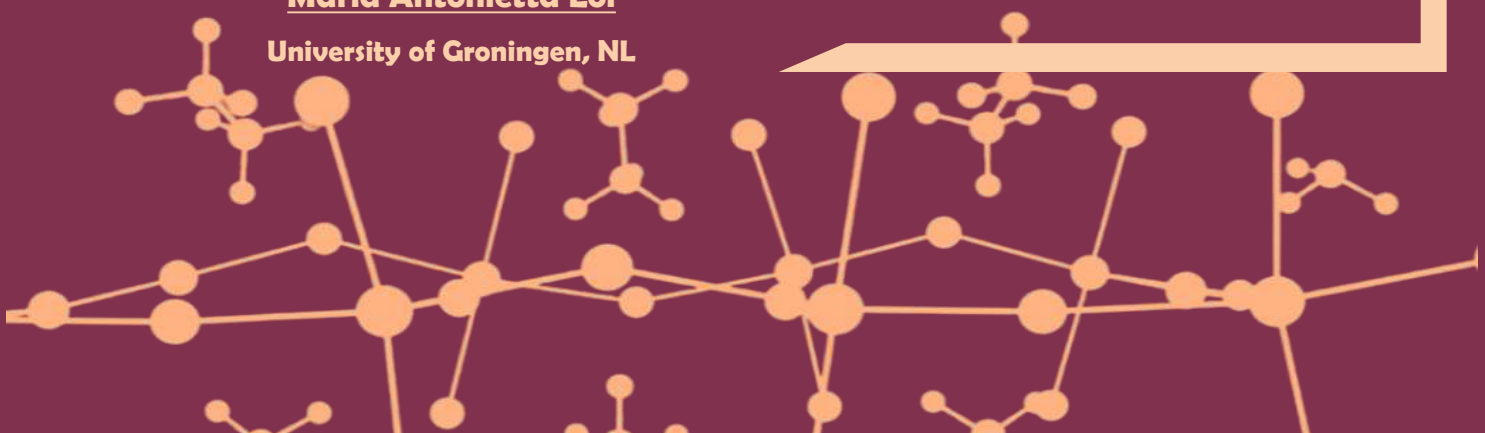
Sam Stranks
University of Cambridge, UK

Seigo Ito
University of Hyogo, JP

Stefan Glunz
University of Freiburg, DE

Ute Cappel
Uppsala University, SE

Xiaodan Zhang
Nankai University, CN



PROGRAM

PSCO 2024

Day 1 - Monday, September 16th, 2024

Session Chair:	***Annamaria Petrozza,*** *Istituto Italiano di Tecnologia, Italy*	
08:00	**08:30**	***WELCOME & REGISTRATION***
08:30	08:45	*Welcome marks by Dr. Annamaria Petrozza*
08:45	09:00	1° PERSEPHONe Speaker **Yarong He,** Photophysical properties of 2D tin perovskites
09:00	09:15	2° PERSEPHONe Speaker **Chunsheng Wu**, Istituto Italiano di Tecnologia, Italy *Simulated emission in perovskite: defects Management and Thin-Film Stoichiometry*
09:15	09:30	3° PERSEPHONe Speaker **Oscar Adrian Jimenez Gordillo,** Nokia Solutions and Networks Italia s.p.a, Italy *From ESR to industry: a tale of two worlds*
09:30	09:45	4° PERSEPHONe Speaker **Ece Aktaş**, University of Naples Federico II, Italy *Tin-based perovskite solar cell performances with self-assembled monolayer in dmso-free solvent system*
09:45	10:00	5° PERSEPHONe Speaker **Yu Wang**, Linköping University, Sweden *Evaluation of multifunctional ion migration in perovskite LEDs*
10:00	10:15	6° PERSEPHONe Speaker **Isabella Antony Kalluvila Justin**, University of Valencia, Spain *Effect of coevaporated dopants on the photoemission of lead halide perovskites*
10:15	10:30	7° PERSEPHONe Speaker **David Otto Tiede**, Institute of Materials Science of Seville, Spain *Slow Charge Carrier Cooling in Ligand-free Quantum Dot Solids - Elucidating the Influence of Interparticle Interaction*
10:30	**10:50**	**COFFEE BREAK**
10:50	11:05	8° PERSEPHONe Speaker **Amit Kumar**, University of Oxford, United Kingdom *Ethanol Based Solvent System for FAPbI3 p-i-n solar cells*
11:05	11:20	9° PERSEPHONe Speaker **Teresa Stefanini**, Istituto Italiano di Tecnologia, Italy *Flexible photodetector based on CsPbBr3 perovskite-polymer composite film*
11:20	11:35	10° PERSEPHONe Speaker **Federico Fabrizi**, AMO GmbH, Germany *Scalable Patterning Technique for Metal Halide Perovskites Integration On-Chip Devices*
11:35	11:50	11° PERSEPHONe Speaker **Virginia Oddi**, IBM, ETH, Switzerland *Perovskite quantum dots in a tunable microcavity*
11:50	12:05	12° PERSEPHONe Speaker **Aditya Bhardwaj**, DECTRIS, Switzerland *Re-assessment of Bismuth Halide based hard radiation detectors*
12:05	12:20	13° PERSEPHONe Speaker **Shaoni Kar**, Helio Display Materials, University of Oxford, United Kingdom *Dimethylammonium-incorporated perovskite nanocrystals for bright and efficient red LEDs*
12:20	**13:30**	***REGISTRATION & LIGHT BUFFET LUNCH***
13:30	**13:45**	***OPENING CEREMONY by Prof. Filippo De Angelis***

Session 1 - Invited Lectures | Town Hall

Session Chair:	***Filippo De Angelis,*** *University of Perugia, Italy*	
13:45	14:10	1° INVITED LECTURE - **Michael Graetzel**, EPFL, Switzerland *Catalyzed formation of pure α-fapbi3 under ambient conditions for high performance perovskite photovoltaics*
14:10	14:35	2° INVITED LECTURE - **Sam Stranks**, University of Cambridge, United Kingdom Operando Studies of Halide Perovskite Devices
14:35	15:00	3° INVITED LECTURE - **Jianpu Wang**, Nanjing Tech University, China *Perovskite LEDs for Lighting and Displays*
15:00	15:25	4° INVITED LECTURE - **Stefan Glunz**, Fraunhofer ISE, University of Freiburg, Germany *Characterization and simulation of perovskite-silicon tandem solar cells and modules*
15:25	15:50	5° INVITED LECTURE - **Kai Zhu**, National Renewable Energy Laboratory, United States *Towards outdoor operation of perovskite solar cells*
15:50	15:55	HALOCELL (5 mins)
15:55	15:53	WAVELABS (3 mins)

PROGRAM

PSCO 2024

15:53	**16:25**	**COFFEE BREAK**
Session Chair:		***Maksym Kovalenko, ETH Zurich, Switzerland***
16:25	16:50	6° INVITED LECTURE - **Jinsong Huang**, University of North Carolina, Chapel Hill, United States *Understanding the Multiple-Facet Degradation Pathways in Metal Halide Perovskite Solar Cells*
16:50	17:15	7° INVITED LECTURE - **Aldo Di Carlo**, ISM-CNR, Italy *Large area halide perovskite modules and panels: from interface engineering with two-dimensional materials to outdoor testing*
17:15	17:40	8° INVITED LECTURE - **Marina Leite**, UC Davis, Italy *Machine learning driven analysis of halide perovskites*
17:40	18:05	9° INVITED LECTURE - **Lorenzo Malavasi**, University of Pavia, INSTM, Italy *Metal halide perovskites: a materials chemistry perspective from design to applications*
18:05	18:30	10° INVITED LECTURE - **Annalisa Bruno**, NTU, Singapore *Advanced Device Customization and Quantum Confinement Using Thermal Evaporation of Metal-Halide Perovskites*
18:30	**18:37**	**COMFORT BREAK**
		Poster Pitch Presentations (2 minutes each) | Town Hall
Session Chair:		***Daniele Meggiolaro, CNR-SCITEC, Italy***
18:37	18:39	**Lorenzo Squillantini**, CNR, Italy *The role of carbon-based nanomaterials as additives in improving the performance of hybrid perovskite solar cells*
18:39	18:41	**Selene Matta**, University of Cagliari, Italy *Space-confined 2Dand quasi-2D halide perovskite single crystals*
18:41	18:43	**Lukasz Przypis**, Wroclaw University of Science and Technology, Poland *Additive-Assisted Synthesis of Tin(II) Iodide: A Key Factor for Stable Large-Area Lead-Free Perovskite Solar Cells*
18:43	18:45	**Yassine Raoui**, CHOSE, University of Rome Tor Vergata, Italy *Efficient Inverted Semi-Transparent Perovskite Solar Cells based on scalable Solution-Processed Hole Transport Layer toward 4T tandem integration*
18:45	18:47	**Erica Magliano**, CHOSE, University of Rome Tor Vergata, Italy *Solution-Processed Buffer Layer for Monolithic Perovskite/Silicon Tandem Solar Cells with Unpolished Rear Surface Silicon Heterojunction*
18:47	18:49	**Shaoni Kar**, Helio Display Materials, University of Oxford, United Kingdom *Dimethylammonium-incorporated mixed halide perovskite nanocrystals for stabilized red emission*
18:49	18:51	**David Otto Tiede**, Institute of Materials Science of Seville, Spain *Revisiting Time Resolved Measurements - How Amplitude Derivatives Reveal Hidden Global Recombination Mechanisms*
18:51	18:53	**Amin Hasan Husien**, University of Milano-Bicocca, Italy *Chalcogenide-based hole transport material for stable perovskite solar cells*
18:53	18:55	**Sam Teale**, University of Oxford, United Kingdom *Monolithic perovskite tandem photovoltaics optimised for maximum energy yield*
18:55	18:57	**Elisa Nonni**, Solertix s.r.l., Italy *Techniques for low-cost upscaling of bifacial 4 terminal perovskite-silicon tandem*
18:57	18:59	**Rahul Ajit Nambiar**, University of Oxford, United Kingdom *Interdiffusion control in sequentially evaporated inorganic-organic fully vacuum deposited perovskite solar cells*
18:59	19:01	**Cristina Teixeira**, NOVA University of Lisbon, Portugal *Solar-to-fuel modelling: Simulating the coupling of a Perovskite Solar Cell with an electrolyzer for renewable syngas production*
19:01	19:03	**Hadi Rostamzadeh Kalkhoran**, Eindhoven University of Technology, Netherlands *Characterization of quasi-reversible performance losses in an outdoor perovskite solar cell under partial shading*
19:03	19:05	**Roland Clausing**,Institute for Solar Energy Research Hamelin ISFH, Germany *Fast and scalable two-step pin-FAxCs1-xPbI3-x-yBry formation via gas-transport deposition for single-junction and tandem application*
19:05	19:07	**Yasuhiro Miura**, Hamamatsu University School of Medicine, Japan A Strategy for Fabricating Two-Dimensional Hybrid Perovskite Ultra-Thin Films Utilizing Langmuir-Blodgett and Intercalation Methods
19:07	**21:00**	**POSTER SESSION & BUFFET DINNER**

PROGRAM

PSCO 2024

Day 2 - Tuesday, September 17th, 2024

Session Chair:		***Lorenzo Malavasi,*** *University of Pavia, INSTM, Italy*	
08:30	08:55	11° INVITED LECTURE - **Henry Snaith**, University of Oxford, United Kingdom *Improving stability and efficiency of metal halide perovskite solar cells*	
08:55	09:20	12° INVITED LECTURE - **Monica Lira Cantu**, ICN2, Spain *Indoor and outdoor stability studies of perovskite solar cells*	
09:20	09:45	13° INVITED LECTURE - **Edoardo Mosconi**, CNR-SCITEC Perugia, Italy Computational modeling of perovskite for photovoltaics and photocatalysis	
09:45	10:10	14° INVITED LECTURE - **Maria Antonietta Loi**, University of Groningen, Netherlands *Scalable deposition of lead-tin perovskite solar*	
10:10	10:13	NIREOS (3 mins)	
10:13	10:16	GREATCELL SOLAR (3 mins)	
10:16	**10:50**	**COFFEE BREAK**	
Session Chair:		***Monica Lira Cantu,*** *ICN2, Spain*	
10:50	11:15	15° INVITED LECTURE - **Prashant Kamat**, University of Notre Dame, France *Impact of ion migration on perovskite solar cell performance*	
11:15	11:40	16° INVITED LECTURE - **Xiaodan Zhang**, Nankai University, China *Inorganic perovskite solar cells and its application in tandem solar cells*	
11:40	12:05	17° INVITED LECTURE - **Maksym Kovalenko**, ETH Zurich, Switzerland *Engineering perovskite nanocrystals as quantum light sources*	
12:05	12:08	MBRAUN (3 mins)	
12:08	12:11	SOLAVENI (3 mins)	
12:11	**13:35**	***LIGHT BUFFET LUNCH***	
		Special Session - Management of lead use in perovskite photovoltaics	
13:35	13:50	**Markus Lenz**, FHNW, Switzerland *Management of Lead Use in Perovskite Photovoltaics*	
13:50	14:00	**Johannes Sutter**, Karlsruher Institut für Technologie, Germany *Green Solvents for Inkjet-Printed Perovskite-Based Photovoltaics*	
14:00	14:10	**Dalila Rocco**, University of Applied Sciences and Arts North-western Switzerland, Switzerland *Indium and silver recovery from thin film solar cell waste by means of nanofiltration*	
14:10	14:20	**Bastien Vallat**, University of Applied Sciences Northwestern Switzerland, Switzerland *Assessing lead leaching from perovskite solar cells more realistically*	
14:20	14:30	**Jonas Hanisch**, Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW), Germany *Slot-die coating of flexible perovskite solar cells with green solvents*	
14:30	**14:35**	**COMFORT BREAK**	
		Session 1A | Town Hall	**Session 1B | Trumpet**
Session Chair:		***Ute Cappel,*** *Uppsala University, Sweden*	***Sam Stranks,*** *University of Cambridge, United Kingdom*
Session Title:		***Phase Stability***	***Tandem PV***
14:35	14:47	**Jiajia Suo**, Uppsala University, Sweden *Multifunctional sulfonium-based treatment for perovskite solar cells with a non-degraded 4500-h operational stability*	**Melissa Fitzsimmons**, University of Cambridge, United Kingdom *All-perovskite tandem solar cells with optimised interconnecting layer*
14:47	14:59	**Tino Lukas**, University of Oxford, United Kingdom *Using the synergies: Carbon-Based Electrodes and ALD-SnOx for Efficient Inverted Perovskite Solar Cells*	**Oussama Er-raji**, Fraunhofer ISE, Germany *Fully-textured perovskite silicon tandems: from groundwork to efficient solar cells*
14:59	15:11	**Simon Ternes**, CHOSE, University of Rome Tor Vergata, Italy *Toward feedback-controlled solution printing of perovskite photovoltaics*	**Wiktor Żuraw**, Saule Research Institute, Poland *Large-area flexible all-perovskite tandem solar modules obtained by solvent engineering*
15:11	15:23	**Riccardo Pau**, University of Cagliari, Italy *Solution-Processed CuI as hole transport layer for improved efficiency and stability*	**Paola Delli Veneri**, ENEA, Italy *Dopant-free c-Si Heterojunction for silicon/perovskite tandem solar cells*

PROGRAM

PSCO 2024

15:23	15:35	**David McMeekin**, University of Oxford, United Kingdom *Intermediate-phase engineering via dimethylammonium cation additive for stable perovskite solar cells*	**Seongrok Seo**, University of Oxford, United Kingdom *Efficient Charge Carrier and Light Management for Perovskite-Silicon Tandem Solar Cell Through Controlling Electron Transporting Contact*
15:35	15:47	**Bowen Yang**, Uppsala University, Sweden *From solution chemistry to device fabrication: a universal additive for high efficiency and stability perovskite solar cell* s	**Fabio Matteocci**, University of Rome Tor Vergata, Italy *Strategies to manipulate AVT and PCE in wide bandgap perovskite solar cells for semitransparent two-terminal PSC-OPV tandem modules*
15:47	15:59	**Susana Ramos Terron**, University of Cordoba, Spain *Modulation of stability and efficiency in 2d/3d perovskite solar devices by the molecular geometry of bulky diammonium cation*	**Dong Zhang**, Swift Solar, United States *Endeavors on commercialization of perovskite-silicon tandem photovoltaics at Swift Solar*
15:59	16:11	**Viktor Škorjanc**, HZB GmbH, Germany Simple templating step improves uniformity and increases efficiency of co-evaporated wide band gap perovskite solar cells	**Mohammad Gholipoor**, Karlsruhe Institute of Technology, Germany *Highly-efficient textured three-terminal perovskite/silicon tandem solar cells*
16:11	16:23	**Hashini Perera**, University of Surrey, United Kingdom *Improving Stability of Perovskite Solar Cells on Self Assembled Monolayers by Surface Modification*	**Marcel Roß**, Helmholtz-Zentrum Berlin (HZB), Germany *Impact of high deposition rates on co-evaporated perovskite-absorbers for monolithic silicon tandem solar cells*
16:23	**16:53**	**COFFEE BREAK**	
		Session 2A | Town Hall	**Session 2B | Trumpet**
Session Chair:		***Aldo Di Carlo, ISM-CNR, Italy***	***Annalisa Bruno, NTU, Singapore***
Session Title:		***Material processing & optoelectronic properties***	***Materials' device and their stability***
16:53	17:05	**Vikram**, University of Oxford, United Kingdom *Atomistic insights into silanes as effective passivating agents for halide perovskite surfaces*	**Feng Wang**, Linköping University, Sweden *Improve the stability of doped spiro-OMeTAD*
17:05	17:17	**Hayley Gilbert**, University of Cambridge, United Kingdom *Linking Chemical and Optoelectronic Properties of Alloyed Perovskites using Optical and X-ray Spectro-microscopy*	**Tadas Malinauskas**, Kaunas University of Technology, Lithuania *Electron and hole selective self-assembling monolayers for perovskite solar cells*
17:17	17:29	**Valentino Romano**, Politecnico di Milano, Italy *Spin relaxation in layered perovskites: a time-resolved faraday rotation study*	**Yuttapoom Puttisong**, Linköping University, Sweden *Spin-Active Center Vanadium V^(4+) Complexes in Halide Double Perovskites Cs2NaInCl6 bulk crystals*
17:29	17:41	**Fanny Baumann**, Inst Catala De Nanociencia & Nanotecnologia (ICN2), Spain *In-situ characterization on operating perovskite solar cells under accelerated stress – expansive strain related to initial degradation*	**Heyong Wang**, Istituto Italiano di Tecnologia, Italy *Advancing Perovskites in Optoelectronic Technologies through Carrier Dynamics-Informed Optimization Strategies*
17:41	17:53	**Cristian Adrian Villalobos Meza**, imec, Belgium *A versatile perovskite deposition method for efficient and stable perovskite solar cells across a wide range of compositions*	**Fengning Yang**, University of Oxford, United Kingdom *Unveiling the imapct of electronic and material degradation for inverted perovskite solar cell via inhomogeneous buried interface*
17:53	18:05	**Valerio Stacchini**, Helmholtz-Zentrum Berlin (HZB), Germany *Electron Selective Monolayers in Perovskite Solar Cells - Advanced Characterization*	**Sara Covella**, University of Bari, Italy *Plasma-driven engineering of metal halide perovskite interfaces for photovoltaic applications*
18:05	18:17	**Dane deQuillettes**, Optigon, Inc., United States *Non-contact characterization of perovskites: relating material properties to device performance*	**Shivam Singh**, TU Dresden, Germany *Impact of buried interface texture on ion migration in perovskite solar cells*
18:17	18:29	**Paul Fassl**, Karlsruhe Institute of Technology, Germany *Thermally evaporated perovskites: conceptual advantages and challenges to accelerate absorber deposition*	**Gerrit Boshloo**, Uppsala University, Sweden *Charge trapping at the SnO2 / perovskite interface and its implementations for solar cells*
18:29	18:41	**Sofía Chozas Barrientos**, University of Valencia, Spain *Vacuum deposited perovskites single junction and tandem photovoltaic*	**Matthew Leyden**, Helmholtz-Zentrum Berlin, Germany *Modified hole transport layers for improved efficiency in evaporated perovskite solar cells*
18:41	**20:00**	**POSTER SESSION - SOCIAL APERITIVO**	
20:00	**22:00**	**SOCIAL DINNER**	

PROGRAM

PSCO 2024

Day 3 - Wednesday, September 18th, 2024

08:45	**09:00**	***Prof. Luca Gammaitoni for VITALITY Project***	
Session Chair:		***Henry Snaith, University of Oxford, United Kingdom***	
09:00	09:25	18° INVITED LECTURE - **Mohammad Khaja Nazeeruddin**, EPFL, Switzerland *Stable and efficient Perovskite Solar Cells and Modules by interface and compositional Engineering*	
09:25	09:50	19° INVITED LECTURE - **Seigo Ito**, University of Hyogo, Japan *Fabrication of cost-effective carbon-based multiporous-layered-electrode perovskite solar cells*	
09:50	10:15	20° INVITED LECTURE - **Paola Vivo**, Tampere University, Finland *Sustainable and air-stable pnictogen-based light harvesters for indoor photovoltaics*	
10:15	10:40	21° INVITED LECTURE - **Hyunjung Shin**, SKKU, South Korea *Highly oriented grains in alpha – formamidinium lead triiodide with non-centrosymmetric crystal structure*	
10:40	10:50	NEXUS PROJECT by Prof. Paul Fassl	
10:50	**11:20**	**COFFEE BREAK**	
Session Chair:		***Stefan Glunz, Fraunhofer ISE, University of Freiburg, Germany***	
11:20	11:45	22° INVITED LECTURE - **Ute Cappel**, Uppsala University, Sweden *Insights into perovskite properties from studies on single crystal surfaces*	
11:45	12:05	23° INVITED LECTURE - **Atsushi Wakamiya**, Kyoto University, Japan *Interlayer Materials for Efficient Perovskite Solar Cells*	
12:05	12:08	FUNANO (3 mins)	
12:08	**13:33**	***LIGHT BUFFET LUNCH***	
		Session 1A | Town Hall	***Session 1B | Trumpet***
Session Chair:		***Paola Vivo, Tampere University, Finland***	***Mohammad Khaja Nazeeruddin, EPFL, Switzerland***
Session Title:		***Advanced perovskite technologies***	***Low band gap PV***
13:33	13:45	**Filippo Campana**, University of Perugia, Italy *A comprehensive LCA study on the use of green solvents for the synthesis and processing of metal-halide perovskites*	**Mitchell Rencheck**, Electric Power Research Institute, United States *Managing Potential Environmental and Human Health Risks of Lead Halide Perovskite Photovoltaic Modules*
13:45	13:57	**Camilla Bordoni**, University of Bologna, Italy *Polymer micro-encapsulated perovskites for stable, flexible and thick radiation detectors*	**Heon Jin**, University of Oxford, United Kingdom *Highly efficient and stable thermal evaporated leadtin perovskites*
13:57	14:09	**Luigi Angelo Castriotta**, University of Rome Tor Vergata, Italy *Advancing flexible perovskite solar technology with benzamide-based molecules for greater mechanical robustness*	**Krishanu Dey**, University of Oxford, United Kingdom *Suppressed ion migration and compositional instabilities in mixed lead-tin halide perovskite materials and devices*
14:09	14:21	**Min Kim**, Jeonbuk National University, South Korea *Interfacial Crystallization of Low-Dimensional Perovskite Nanomaterials for Highly Efficient Photoelectric Devices*	**Francesca De Rossi,** CHOSE, University of Rome Tor Vergata, Italy *Thermosetting polyurethanes resins as primary encapsulants for flexible perovskite solar cells*
14:21	14:33	**Wenya Song**, imec, Belgium *Halide Perovskite Photodiode Integrated CMOS Image Sensor*	**Isabella Poli**, Istituto Italiano di Tecnologia, Italy *How composition affects material's properties in tin halide perovskites*
14:33	14:45	**Anna Wąsiak-Maciejak**, Saule Research Institute, Poland *Closing the gap: compositional and interfacial engineering for enhanced stability and performance of flexible wide bandgap devices*	**Luca Gregori**, University of Perugia, Italy *Reducing p-doping of tin-halide perovskites by trivalent cation doping*
14:45	14:57	**Jin Wang**, Nankai University, China Conductive Passivating Contact for High Fill Factor Monolithic Perovskite/Silicon Tandem Solar Cells	**Giulia Folpini**, CNR, Italy Analysis of doping density and carrier phonon coupling in Tin-based perovskites using time resolved THz spectroscopy

PROGRAM

PSCO 2024

14:57	**15:05**	**COMFORT BREAK**	
		Session 2A | Town Hall	**Session 2B | Trumpet**
	Session Chair:	***Edoardo Mosconi, CNR-SCITEC Perugia, Italy***	***Maria Antonietta Loi , University of Groningen, Netherlands***
	Session Title:	***Computational insight into perovskites***	***AI for perovskite thin-film***
15:05	15:17	**Daniele Meggiolaro**, CNR-SCITEC Perugia, Italy *On the route towards efficient tin-halide perovskite solar cells: a theoretical perspective*	**Kenedy Tabah Tanko**, Catalan Institute of Nanoscience and Nanotechnology, Spain *Indoor - outdoor performance correlation: operational lifetime prediction of perovskite solar cells through machine learning*
15:17	15:29	**Mostafa Othman**, EPFL, Switzerland *Suppression of Stacking Faults for Stable Formamadinium-Rich Perovskite Absorbers*	**Ulrich Paetzold**, Karlsruhe Institute of Technology, Germany *Augmenting in situ monitoring of perovskite thin-film formation using deep learning*
15:29	15:41	**Xin Wu**, City University of Hong Kong, Hong Kong *Theoretically guided material design, interface engineering and device optimization for efficient and stable perovskite/organic tandem solar cells*	**Justus Just,** MAX IV Laboratory, Lund University, Sweden *Integrating Robotic High-Throughput Processing with Synchrotron Based InSitu Multimodal Analysis —Homogenous Crystallization of Mixed Br-I Perovskites*
15:41	15:53	**Tommaso Moretti**, University of Perugia, Italy *Harnessing halogen bonding in tuning optoelectronics properties of low-dimensional perovskites*	**Valentina Larini**, University of Pavia, Italy *Recycling and reuse of critical components of perovskite solar cells: from device efficiency to life cycle assessment*
15:53	16:05	**Claudio Quarti**, Materials Research Institute, University of Mons, Belgium *Atomistic simulations of mixed halide perovksites: is compositional disorder detrimental?*	**Salvatore Valastro**, CNR-IMM, Italy *Improved radicchio seedlings growth under CsPbI3 perovskite rooftop in a laboratory- scale greenhouse for agrivoltaics application*
16:05	16:17	**Federico Brivio**, University of Perugia, Italy *NMR crystallography of 2D hybrid perovskites*	**Tom Aernouts**, imec, Belgium *Long-term perovskite module outdoor performance in different outdoor regions*
16:17	**16:52**	**COFFEE BREAK**	
		Session 3A | Town Hall	**Session 3B | Trumpet**
	Session Chair:	***Filippo De Angelis, University of Perugia, Italy***	***Daniele Meggiolaro, CNR-SCITEC, Italy***
	Session Title:	***Exploring PVK dynamics and innovation***	***Perovskite photonics and device engineering***
16:52	17:07	**Vanira Trifiletti**, University of Milano - Bicocca, Italy *Doping in quasi-zero dimensional halide perovskite*	**Thomas William Gries**, Helmholtz-Zentrum Berlin, Germany *Lumos Maxima: Unveiling the Mysteries of Photoluminescence Quenching*
17:07	17:22	**Lauren Tidmarsh**, University of Surrey, United Kingdom *Influence of heavy ions on perovskite photovoltaics operating in space*	**Giacomo Giorgi**, University of Perugia, Italy *Optoelectronic features of 2d and quasi-2d halide perovskites*
17:22	17:37	**E Laine Wong**, Istituto Italiano di Tecnologia, Italy *Understanding the role of PbI2 and Pb in the photoemission studies of polycrystalline perovskite thin films*	**Sergey Tsarev**, Ethz, Switzerland *Monolithic multiband triple junction perovskite photodetectors for color filter-free imaging*
17:37	17:52	**Gebhard Matt**, ETH Zurich, Kovalenko Lab, Switzerland *Time-Domain Signal Balancing LiDAR with Centimeter Resolution Based on Metal-Halide Perovskite*	**Davide Regaldo**, Istituto Italiano di Tecnologia, Italy *A Lateral Heterojunction Device as a Tool to Study Perovskite-Based Solar cells*
17:52	18:07	**Lara van der Poll**, TU Delft, Netherlands *QFLS Determination Through Microwave Conductivity Techniques: Matching Transient and Steady-State Measurements*	**Luca Mancini**, University of Perugia, Italy *Modeling the interaction of CO_2 with nanostructures: from graphene layers to perovskites*
18:07	**18:35**	**CLOSING/AWARDS**	

SPONSORS

PSCO 2024

PERSEPHONE

VITALITY

NEXUS

Halocell

FUNANO

greatcellsolar MATERIALS

solaveni

WAVELABS

NIREOS

MBRAUN
Clean. Engineering. Expertise.

Photon etc
A spectrum of solutions

SCIPRIOS
Making science better

SEMILAB

DataMaker
TECH CHANGE LIFE

autocoat
SOLUTION COATING

Prolabin&Tefarm
Polymer Additives, Cosmetic Ingredients, Catalysts

ACS Energy Letters

ROYAL SOCIETY OF CHEMISTRY

APS Physical Review Journals