



E-MRS Fall Meeting
Warsaw, 18 – 21 September 2023



Symposium "S"

Metal Halide Perovskites for Photonic Applications: From Fundamentals to Devices

This symposium aims at bringing together experimentalists and theoreticians who are investigating various fundamental processes in perovskite nanomaterials, from the synthesis, surface chemistry and optical characterization to theoretical modelling and light emitting applications. It provides a forum for discussing the latest scientific discoveries in these exciting new research areas bridging material science with optoelectronics and quantum technologies.

Hot topics of the symposium:

- Nanocrystal assemblies
- Weak to strong confinement regimes
- Quantum and dielectric confinement
- Optical/NLO/pump-probe/ultrafast/terahertz spectroscopies
- Ultrafast diffraction/ultrafast dynamics
- Quantum (optical) effects, quantum light sources
- Many-body physics (exciton, multi-excitons; fine structure, exciton-phonon; exciton-photon)
- Weak to strong coupling regimes
- Perovskites in optical microcavities (polariton condensation, polariton simulator,...)
- Coherent/Collective phenomena/correlated physics
- LEDs; optical modulators; optical switches; lasers; Li-Fi; photodetectors (not PV!), sensors ...

Confirmed invited speakers:

- Philippe Tamarat, Université de Bordeaux (FR)
- Ivan Shelykh, University of Iceland (IS)
- Tõnu Pullerits, Lund University (SE)
- Ivan Mora-Sero, University Jaume I (ES)
- Aditya Mohite, Rice University (US)
- Simon Kahmann, University of Cambridge (UK)
- Grigorios Itkos, University of Cyprus (CY)
- Feliciano Giustino, University of Texas Austin (US)
- Carole Diederichs, ENS Paris (FR)
- Maryna Bodnarchuk, EMPA (CH)
- Dario Ballarini, CNR Nanotec (IT)

Confirmed scientific committee members:

- Maria Angeles Chamarro, Université de Sorbonne (FR)
- Emmanuelle Deleporte, ENS Cachan (FR)
- Giulia Grancini, University of Pavia (IT)
- Quentin Jeangros, CSEM (CH)
- Ioannis Koutselas, University of Patras (GR)
- Maksym Kovalenko, ETH Zürich (CH)
- Pavlos Lagoudakis, University of Southampton (UK)
- Linn Leppert, University of Twente (NL)
- Efrat Lifschitz, Technion (IL)
- Rainer F. Mahrt, IBM Research Europe - Zurich (CH)
- Hamid Ohadi, University of St Andrews (UK)
- Juan Martinez Pastor, Universidad de Valencia (ES)
- Annamaria Petrozza, IIT Milan (IT)
- Paulina Plochocka, LNCMI Toulouse (FR)
- Qing Shen, Univ. of Electro-Comm. Tokyo (JP)
- Jacek Szczytko, University of Warsaw (PL)
- Thorsten Wahlbrink, AMO GmbH (DE)
- Bernard Wenger, HELIO DISPLAY Materials (UK)

Submission deadline for abstracts:
5 June 2023

<https://www.european-mrs.com/metal-halide-perovskites-photonic-applications-fundamentals-devices-emrs-0>

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Prices awarded for contributed presentations:

Symposium "S" **Best Oral Presentation** *Selected during symposium among PhD students and postdocs*
Symposium "S" **Best Poster**

E-MRS **Young Researcher Awards**

<https://www.european-mrs.com/meetings/2023-fall/young-researcher-awards-2023>

E-MRS **Three-Minute Thesis Competition**

<https://www.european-mrs.com/meetings/2023-fall/three-minute-thesis-competition>

PhD students: apply/register beforehand!

Symposium sponsors



Symposium organizers:

Claudine Katan
CNRS

Gabriele Rainò
ETH Zurich

Thilo Stöferle
IBM Research

Barbara Pietka
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