The18th **Workshop on Photonic Microresonators and Resonant Devices (PMRD),** former Special Session on Photonic Atoms & Molecules (PAM) is being organized in the frame of ICTON 2025 on July 6th to 10th 2025 in Barcelona, Catalunya, Spain, websites: <https://icton2025.upc.edu/>; <https://www.gov.pl/web/instytut-lacznosci/icton-2025>.

We are pleased to invite you to participate in the PMRD workshop, a focused event dedicated to the latest research, innovations, and applications in the field. The workshop will bring together leading experts, researchers, and engineers to explore cutting-edge developments, foster collaboration, and address key challenges within the realm of optical microresonators and resonant devices.

**Workshop Topics**

The workshop will cover a broad range of topics related to microresonators and resonance devices, including but not limited to:

* **Design, Fabrication, and Characterization of Optical Microresonators**
  + Innovations in material science for enhanced performance
  + Novel microfabrication techniques
  + Characterization methods for high-Q microresonators
* **Nonlinear Optical Effects in Resonators**
  + Frequency comb generation
  + Kerr effects and other nonlinear phenomena
  + Solitons in microresonators
* **Applications in Photonic Circuits and Integrated Photonics**
  + Resonator-based photonic circuits and components
  + Resonant optical filters, switches, and sensors
  + Tunable microresonators for signal processing
* **Whispering Gallery Mode Resonators and Their Applications**
  + Applications in biosensing and environmental monitoring
  + Quantum optics applications using microresonators
  + Optical frequency comb generation
* **Resonators in Optical Communication**
  + Optical microresonators for telecommunication systems
  + Resonator-based frequency conversion and multiplexing techniques
* **Cavity Optomechanics and Advanced Resonant Phenomena**
  + Optical trapping and manipulation in microresonators
  + Optomechanical interactions in resonant devices
  + Hybrid photonic and phononic devices

**Who Should Attend**

This workshop is aimed at:

* Researchers and scientists working in photonics, optics, and materials science
* Engineers and technologists in telecommunications and sensing industries
* Graduate students and early-career professionals seeking to explore the field of optical microresonators
* Industry professionals looking for innovative technologies and solutions

**Workshop Date and Venue**

* **Date**: July 6th to 10th 2025
* **Venue**: Barcelona, Catalunya, Spain
* **Websites**: <https://icton2025.upc.edu/>;   
  <https://www.gov.pl/web/instytut-lacznosci/icton-2025>

**Submission Guidelines**

We encourage researchers to submit abstracts related to the above topics. Selected papers will be invited for oral and poster presentations. Submission guidelines are available on the ICTON website. Please write ‘PMRD’ or ‘microresonator workshop’ in the subject line when emailing your submission.

For more details and to stay updated, please visit the above websites.

We look forward to your participation and to advancing the frontiers of optical microresonator research together!

**PMRD Chair**

Prof Michael (Misha) Sumetsky (Aston University, United Kingdom) m.sumetsky@aston.ac.uk

**PMRD Co-Chairs:**

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