OFS29

29th International Conference On Optical Fiber Sensors
2025 May 25–30 Porto, Portugal

where concepts, innovation, developments and applications on fiber optics-based sensing are delivered, together with related photonic principles and technologies

Second Call for Papers

www.ofs29.org

Overview

The International Conference on Optical Fiber Sensors (OFS) had its first edition in 1983 and since then 28 editions occurred every 18 months (except in the pandemic time), moving across Europe, Americas, and Asia/Pacific accordingly with the principle of following the light (the Sun). Over this period of more than 40 years the field expanded enormously in consequence of progress in multiple scientific and technological domains, also the diversity of applications where sensing supported by optical fiber presents comparative advantages.

Now, the timeline converges to OFS29, which will happen in Porto by May 2025. It is demanding the responsibility of organizing an event that does justice to the prestigious history of this emblematic conference. Being aware of that, we will do our best to build a scientific program of recognized quality, a showcase where companies all around the world demonstrate their technologies and optical sensing equipments, a context where different generations of researchers and entrepreneurs meet and feel encouraged to share their experiences and goals, a welcoming environment that helps everyone feel at home.

An **Exhibit of Products and Services** as well as **Tutorials** and **Technical Workshops** will also take place during the Conference.

Scope and Topics

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The conference scope and topics will include but are not limited to:
Physical and Mechanical Sensors
Electromagnetic Sensors
Chemical and Environmental
Biological and Medical Sensors
Interferometric & Polarimetric Sensors
Distributed Sensing
Multiplexing and Sensor Networking
Passive & Active Devices for Photonic Sensing
New Concepts for Photonic Sensing
Signal Processing for Fiber Optic Sensing
Smart Structures and Smart Materials
System Applications and Field Trials

Submission

Submission Deadline January 13, 2025

Author Notification February 28, 2025

End of Early Registration March 31, 2025

Authors are invited to submit an **abstract (50-150 words)** and **4-page manuscript** via a publishing manuscript submission system provided by SPIE.

Manuscript preparation template and guidelines are available at **www.ofs29.org** /authors /submission.

Invited Speakers

	Speaker/Institution (alphabetic order)	**Topic** (not necessarily the title of the talk)
Plenary Speakers	PROF Christian Degen ETH ZURICH (CH)	*Quantum Sensing*
	PROF Roberto Osellame MILANO POLYTECHNIC (IT)	*Optical sensing and imaging in femtosecond-laser-written optofluidic lab-on-chip*
	DR Stuart Russell SINTELLA (UK)	*Optical Fiber Distributed Sensors – a Truly Disruptive Technology for Large Area Sensing and Protection*
Session Invited Speakers	PROF Andrea Cusano UNIVERSITY OF SANNIO (IT)	*Lab-in-a-Fiber: State of the Art*
	PROF Austin Taranta UNIVERSITY OF SOUTHAMPTON (UK)	*Next-Generation Fiber Optic Gyroscopes based on Nested Anti-resonant Fiber (NANF)*
	PROF Brant Gibson RMIT UNIVERSITY (AU)	*Fluorescence-based Quantum Sensing*
	PROF Chang-Seok Kim PUSAN NATIONAL UNIVERSITY (KR)	*Autonomous Vehicle 4D LiDAR Sensor based on OFDR Technology*
	DR Giuseppe Marra NATIONAL PHYSICAL LABORATORY (UK)	*The Use of Ultra-stable Laser for the Detection of Seismological Events through Optical Interferometry using Inter-continental Subsea Cables*
	PROF Lan Yang WASHINGTON UNIVERSITY (US)	*Whispering-gallery Microresonator Sensors*
	PROF Miguel González UNIVERSITY OF ALCALÁ (ES)	*Sensing with Communication Links*
	DR Mikael Mazur NOKIA BELL LABS (US)	*Convergence between Communication Networks and Sensing Systems*
	DR Miguel Soriano Amat RISE (SE)	*Time-Expansion Concept in Distributed Sensing*
	PROF Stephanie Krober TU BRAUNSCHWEIG (DE)	*Optical Quantum Metrology*
Workshop A ***Biosensing***	PROF Jiawen Li THE UNIVERSITY OF ADELAIDE (AU)	*Single-Fiber Probes for Combined Sensing and Imaging in Biological Tissue*
	PROF Markus Schmidt LEIBNIZ IPHT (DE)	*In-fiber Nanoparticle Tracking Analysis*
	PROF Vasilis Ntziachristos IBMI HELMHOLTZ ZENTRUM (DE)	*Listening to Light: Advanced Optoacoustic Imaging*
Workshop B ***Technologies in Optical Fiber Sensing***	PROF Cristiano Cordeiro UNIVERSITY OF CAMPINAS (BR)	*Microstructured Polymer Optical Fibers/ Hollow Core Fibers*
	PROF Linh Nguyen UNIVERSITY OF SOUTH AUSTRALIA (AU)	*Deep Sensing: Next Generation Optical Fiber Sensors Powered by Machine Learning*
Tutorial A ***Core Topics for Distributed Fiber Optic Sensing***	DR Ali Masoudi UNIVERSITY OF SOUTHAMPTON (UK)	*Nonlinear Effects in Optical Fibers for Sensing*
	DR Hugo Martins UNIVERSITY OF ALCALÁ (ES)	*Signal Processing in Distributed Fiber Optic Sensing*
Tutorial B ***Topics in Fiber Optic Sensing***	DRA Anna Grazia Mignani CNR-IAP 'NELLO CARRARA (IT)	*Spectroscopy for Food Applications using Pocket-sized Spectral Sensors Connected to Smartphones*
	DR Francesco Chiavaioli CNR-IFAC (IT)	*Towards a Uniform Metrological Assessment of the Performance of Optical Fiber Sensors in Real-Life Contexts*

General Chair

Prof. José Luís Santos
UNIVERSITY OF PORTO (PT)

Technical Program Chairs

Prof. Manuel Lopez-Amo Sainz
UNIVERSIDAD PÚBLICA DE NAVARRA (ES)

Prof. Tong Sun
CITY ST GEORGE'S, UNIVERSITY OF LONDON (UK)

To contact the OFS29 secretariat please email **ofs29@inesctec.pt**