

Abstract deadline

**11 SEPTEMBER 2023**



Association Aéronautique  
et Astronautique de France

# OPTRO 2024

11th International Symposium  
on Optronics in Defence & Security

Bordeaux • France • 23-25 January 2024

Call For Papers

[www.3af-optro.com](http://www.3af-optro.com)

### OBJECTIVES

For the first time, **OPTRO2024 symposium will take place in Bordeaux, France**. It is a great opportunity to visit the region of Bordeaux, which is a renowned cluster in Optics and Photonics. It hosts the **Laser Megajoule, the French ignition facility**.

**OPTRO** is the European event for engineers and scientists in the field of Optronics.

For its 11th edition, **OPTRO2024 will highlight lasers in Optronics**. By gathering leading specialists from institutions and agencies, industry and research labs, the Symposium offers opportunities to implement fruitful exchanges between colleagues of different countries and disciplines.

OPTRO2024 will present recent advances in **Optronics in the fields of Defence and Security** and perspectives that Photonics offers in the near future through emerging technologies.

**OPTRO2024 will host an exhibition**, within the conference centre, offering an opportunity to exchange on innovation and products.

**EPIC Roundtable 2024** will gather a forum dedicated to a specific topic.

**PhD's communications** will be highlighted by "OPTRO 2024 best PhD communication Award".

**OPTRO 2024 Award** will be attributed on **January 24th, 2024**.

#### Keynote Addresses

- Cécile SELLIER, DGA
- Michael GROENERT, CSISR
- Rüdiger QUAY, Fraunhofer IAF
- ...

#### Round Table

[ Laser in Optronics ]

### PROGRAMME COMMITTEE

ADAM	Philippe	SFO	FR	LALLIER	Eric	TRT	FR
ALLEN	Jeffery	AFRL	US	LEE	Carlos	EPIC	BE
ALLEN	Monica	AFRL	US	LEFEVRE	Franck	ONERA	FR
BARRAT	Benoit	MBDA FRANCE	FR	LETALICK	Dietmar	FOI	SE
BERGINC	Gérard	Thales	FR	LONNOY	Jacques	3AF	FR
BERIZZI	Fabrizio	EDA	IT	LUTZ	Holger	AIM	DE
BESSON	Claudine	ONERA	FR	MATHIEU	Clément	Dassault Aviation	FR
CHRISNACHER	Franck	ISL	DE	MERRY	Christian	Laser Components	FR
COTEL	Arnaud	Airbus Defense & Space	FR	MOULLEC	Jean-Baptiste	DGA	FR
COURSAGET	François	NIT	FR	MÜNZBERG	Mario	Hensoldt	DE
COURIS	Jean-François	CCINT	FR	PAOLACCI	Sylvie	DGA	FR
CUGNY	Bruno	CNES	FR	PISTONE	Frédéric	Thales Alenia Space	FR
DE LA BARRIERE	Florence	ONERA	FR	RABAULT	Denis	Thales	FR
DUPOUX	Thierry	Safran Electronics & Defence	FR	ROUX	Jean-Noël	Thales	FR
ELDER	Ian	Leonardo	UK	ROY	Vincent	DRDC-RDDC-VALCATIER	CA
FOURNIER	Gilles	ArianeGroup	FR	RUBALDO	Laurent	LYNRED	FR
GEYL	Roland	Safran REOSC	FR	SCHMITT	Nikolaus	Consulting	DE
GOUDAIL	François	IOGS	FR	SHIMONI	Michal	RMA	BE
GRAVRAND	Olivier	CEA-LETI	FR	SILVER	Mark	Thales	UK
GROENERT	Michael	CSISR	US	SODNIK	Zoran	ESA/ESTEC	NL
HAAKESTAD	Magnus	FFI	NO	STEIN	Karin	Fraunhofer-IOSB	DE
HILL	Lee	DSTL	UK	URIBE	Juanie	CSISR	US
KLING	Emmanuel	SAFRAN	FR	USAI	Andrea	Ellectronica	IT
KOECHLIN	Charlie	Sodern	FR	VORONTSOV	Mikhail	Dayton University	US
KOPCZYNSKI	Krzysztof	Mil. University of Tech.	POL	WALTHER	Martin	Fraunhofer-IAF	DE
KRAUSE	Ulf	Jenoptik	DE				

## CALL FOR PAPERS

Original papers are solicited on the following critical areas of research and engineering. The selected contributors will be requested to submit a full paper to the Conference Secretariat. All accepted and presented papers will be published in the proceedings and distributed at the conference. PhD's papers are particularly appreciated.

## CONFERENCE TOPICS AND KEYWORDS

**\_1 Imaging & Systems:** IR imaging, SWIR imagers, goggles, binoculars, I2, low light level imaging, airborne piloting and targeting, spectroscopic imagers, intelligent munitions, thermal weapon sights, multi modal (RF/Optro) sensors, multispectral, image fusion, soldier systems, displays, inertial sensors...

**\_2 Sensors & components:** visible detectors, EMCCD, IR uncooled and cooled, superlattice detectors, multi band detectors, 3D FPA, photon counting, optical design, optical engineering, optomechanics, optical materials, windows, domes, finishing methods, optical testing, optical filters, protective coatings, laser damage resistance, cooling systems, adaptive optics, deformable mirrors...

**\_3 Laser Sensor & Systems:** medium and high energy laser, laser weapons, active (2D/3D) imaging, fiber laser, QCL, laser range finder, laser designator, laser polarimetry and vibrometry, laser spectroscopy, lidar, laser radar, air vehicles self protection, laser tracking systems, turbulence corrections...

**\_4 Signal, Image Processing and Artificial Intelligence for optronics:** multispectral / hyperspectral algorithms, anomaly detection, atmospheric correction, feature extraction, target recognition, performance measurement, tracking, matching and filtering, sensor / data fusion, centralized distributed architecture, adaptive / knowledge based fusion, artificial intelligence for optronics, man-machine teaming, computational vision, aid decision making...

**\_5 Simulation and Augmented Reality:** physical model, analytical model, performance analysis, evaluation means, model validation, simulation, scenario, scene and target generation...

**\_6 Photonics R&T and Emerging Technologies:** quantum enabling technologies, micro-nanotechnologies, nanophotonic material, plasmonics, carbon nanotubes, metamaterials, photonic crystals, terahertz, on chip processing, compressive sensing,

**\_7 Airborne applications:** Airborne lasers and optical measurement (active/passive), sensors (incl. fiber optical sensors), optical navigation, sense & avoid, self-protection, optical communication, for mission or flight critical systems in civil and/or military aircraft, UAV payload.

**\_8 Air, Land & Sea Defence Applications:** Reconnaissance, ISR, navigation systems,IRST, naval E.O directors, optronic mast, periscope, avoidance systems, gyro stabilized airborne sights, armored vehicles fire control systems, anti-aircraft and anti-tank systems...

**\_9 Homeland Security Applications:** border surveillance, detection-recognition- tracking and protection against small UAV's and unmanned vehicles, forensics, illicit substance detection, CBRN detection (chemical, biological, radiological, nuclear) (point, standoff), mines detection, explosive compound detection, IED detection, multi sensors sensing, sensors fusion, system integration, detection of underground tunnels / bunkers, UWB radars ...

**\_10 Space Applications:** space optical systems, space telescope, space imagers, space cryogenics, Earth observation, mission description, remote sensing, space spectrometers, space lidars and lasers, metrology ...

## ABSTRACT SUBMISSION GUIDELINES

The abstract should give sufficient insight on the technical content of the paper and enable the selection for oral presentation.

- Each selected paper will be presented in a 20 minutes talk at the Symposium (included 5 minutes for Q&A).
- The abstract should be in English and no longer than 500 words.
- The abstract should be a "stand alone" summary that can be used in the compilation of abstracts.
- The abstract should summarize the main objectives of the paper and outline its conclusions.
- To ensure a high-quality conference, all submissions will be assessed by the conference chairs for technical merit and suitability of content regarding to the main topics listed above.
- Conference chairs may reject for presentation any paper that does not meet content expectations.
- Only original content should be submitted. Commercial papers, papers with no new developments or results will not be accepted for presentation.



## OPTRO2024 AT A GLANCE

TUESDAY 23 JANUARY 2024		WEDNESDAY 24 JANUARY 2024				THURSDAY 25 JANUARY 2024			
REGISTRATION		ROOM 1	ROOM 2	ROOM 3					
M O R N I N G	EXHIBITION VISIT TECHNICAL VISIT AT LMJ (50 registrated visitors)	3 PARALLEL SESSIONS			3 PARALLEL SESSIONS			E X H B I T I O N	
		3 PARALLEL SESSIONS			3 PARALLEL SESSIONS + EPIC				
A F T E R N O O N & E V E N I N G	INTRODUCTION TO THE SYMPOSIUM HONORARY PRESIDENT ADDRESS INTRODUCTION TO OPTRO 2024 KEYNOTE ADDRESSES	PLENARY ROUNDTABLE			END OF SYMPOSIUM				
	GALA DINNER	COCKTAIL SOCIAL EVENT OPTRO 2024 Award OPTRO 2024 PhD Best Paper Award							

### Conference milestones

Abstracts and papers shall be submitted on OPTRO website: [www.3af-optro.com](http://www.3af-optro.com)

- Abstract submission site open: **1 June 2023**
- Paper submission site open: **9 October 2023**
- Final programme: **20 December 2023**

### Language

Symposium official language is English.  
All documents must be in English

### Organizing Committee

**Symposium Chair:** Claudine BESSON  
ONERA - The French Aerospace Lab  
E-mail: [claudine.besson@onera.fr](mailto:claudine.besson@onera.fr)

**Co-Chairs:** Philippe ADAM - SFO  
Florence de la BARRIERE - ONERA  
Jean-François COUTRIS - CCINT  
Jacques LONNOY - 3AF  
Jean-Baptiste MOULLEC - DGA

### Submission deadlines

**Abstract Deadline:** **11 September 2023**  
**Author Notification:** **9 October 2023**  
**Full paper Deadline:** **4 December 2023**

### Conference Secretariat

**OPTRO2024 Secretariat:** Aude LURBE  
6, rue Galilée - 75016 Paris France  
E-mail: [optro2024@3af.fr](mailto:optro2024@3af.fr)

**OPTRO2024 Exhibition:** Jennifer SAVINA  
E-mail: [event@3af.fr](mailto:event@3af.fr)

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### Partners

