

# INFRARED DETECTION FOR SPACE APPLICATIONS



## 3<sup>rd</sup> WORKSHOP

17<sup>th</sup> to 19<sup>th</sup>, June 2025

TOULOUSE, France

DIAGORA, CENTRE DE CONGRÈS ET D'EXPOSITION  
150 Rue Pierre Gilles de Gennes, 31670 Labège

Co-organised by CNES, ESA, LABEX FOCUS, ONERA, CEA-LETI  
AIRBUS DEFENCE & SPACE, THALES ALENIA SPACE

## CALL FOR ABSTRACTS

CNES, ESA, ONERA, CEA-LETI, Labex Focus, Airbus Defence & Space and Thales Alenia Space are pleased to inform you that they are organising the 3<sup>rd</sup> workshop dedicated to Infrared Detection for Space Applications, that will be held in Toulouse from 17<sup>th</sup> to 19<sup>th</sup>, June 2025 in the frame of the Optics and Optoelectronics Technical Expertise Community (COMET).

The aim of this workshop is to focus on Infrared Detectors technologies and components, Focal Plane Arrays and associated subsystems, control and readout ASICs, manufacturing, characterization and qualification results. The workshop will only address IR spectral bands between 1µm and 100 µm.

Due to the commonalities with space applications and the increasing interest of space agencies to qualify and to use COTS IR detectors, companies and laboratories involved in defence applications, scientific applications and non-space cutting-edge developments are very welcome to attend this workshop.

## TOPICS

The workshop will comprise several sessions addressing the following topics:

- Detector needs for future space missions,
- Infrared detectors and technologies including (but not limited to):
  - o Photon detectors: MCT, InGaAs, InSb, XBN, QWIP, SL, intensified, Si:As, ...
  - o Uncooled thermal detectors: microbolometers (a-Si, VOx), pyroelectric detectors ...
  - o ROIC (including design and associated Si foundry aspects).
  - o Optical functions on detectors
- Focal Plane technologies and solutions for Space or Scientific applications including subassembly elements such as:
  - o Assembly techniques for large FPAs,
  - o Flex and cryogenic cables,
  - o Passive elements and packaging,
  - o Cold filters, anti-reflection coatings,
  - o Proximity ASICs for IR detectors,
- Manufacturing techniques from epitaxy to package integration,
- Characterization techniques,
- Radiation effects, space qualification and validation of detectors and ASICs,
- Recent Infrared Detection Chain performances and Integration from a system point of view.

Three tutorials will be given during this workshop.

## ABSTRACT SUBMISSION FOR ORAL PRESENTATION OR POSTER

Please send a short abstract giving the title, the authors' names and affiliations, and presenting the subject of your talk, to following contact: [anne.rouvie@cnes.fr](mailto:anne.rouvie@cnes.fr) and [kyriaki.minoglou@esa.int](mailto:kyriaki.minoglou@esa.int).

The workshop official language is English (oral presentation and posters).

## ORAL PRESENTATION SUBMISSION

After abstract acceptance notification, authors will be requested to prepare their presentation in pdf or PowerPoint format, to be presented at the workshop. Authors will also be required to provide a version of their presentation to the organization committee along with an authorization to make it available for Workshop attendees and on-line for COMET members. No proceedings will be compiled and so no detailed manuscript needs to be submitted.

## POSTER SESSION

One poster session will happen but the posters can remain displayed during the complete workshop.

## SCHEDULE

<i>Call for abstracts</i>	December 2024
<i>Abstracts due date</i>	28 <sup>th</sup> February 2025
<i>Authors notification &amp; preliminary program</i>	31 <sup>st</sup> March 2025
<i>Final program</i>	30 <sup>th</sup> April 2025
<i>Workshop</i>	17 <sup>th</sup> to 19 <sup>th</sup> June 2025

## REGISTRATION FEE

CNES, ESA, Labex FOCUS, ONERA, CEA-LETI, Airbus Defence & Space and Thales Alenia Space will sponsor the workshop. Registration fee covers coffee breaks and lunches for the 3 days and the welcome cocktail.

<i>Attendee</i>	120 €
<i>Student discount</i>	60 €

On line registration link will be sent along with the preliminary program.

## EXHIBITION

Several booths will be available during the workshop. If you are interested, please contact the organization committee. Price will be fixed based on the numbers of exhibitors.

## ORGANIZATION COMMITTEE

CNES	<i>Clémentine Durnez</i>	<a href="mailto:clementine.durnez@cnes.fr">clementine.durnez@cnes.fr</a>
	<i>Anne Rouvié</i>	<a href="mailto:anne.rouvie@cnes.fr">anne.rouvie@cnes.fr</a>
	<i>Cédric Virmontois</i>	<a href="mailto:cedric.virmontois@cnes.fr">cedric.virmontois@cnes.fr</a>
ESA	<i>Kyriaki Minoglou</i>	<a href="mailto:kyriaki.minoglou@esa.int">kyriaki.minoglou@esa.int</a>
LABEX FOCUS	<i>Fabien Malbet</i>	<a href="mailto:fabien.malbet@univ-grenoble-alpes.fr">fabien.malbet@univ-grenoble-alpes.fr</a>
ONERA	<i>Sylvie Bernhardt</i>	<a href="mailto:sylvie.bernhardt@onera.fr">sylvie.bernhardt@onera.fr</a>
CEA-LETI	<i>Olivier Gravrand</i>	<a href="mailto:olivier.gravrand@cea.fr">olivier.gravrand@cea.fr</a>
Airbus Defence & Space	<i>Denis Marchais</i>	<a href="mailto:denis.marchais@airbus.com">denis.marchais@airbus.com</a>
Thales Alenia Space	<i>Nadège Remoué</i>	<a href="mailto:nadege.remoue@thalesaleniaspace.com">nadege.remoue@thalesaleniaspace.com</a>
	<i>Thierry Dartois</i>	<a href="mailto:thierry.dartois@thalesaleniaspace.com">thierry.dartois@thalesaleniaspace.com</a>

Main contacts: [anne.rouvie@cnes.fr](mailto:anne.rouvie@cnes.fr) , [kyriaki.minoglou@esa.int](mailto:kyriaki.minoglou@esa.int)

Comet link: <https://www.comet-cnes.fr/liste-evenements-futur/ooe>