











Editorial

# 17th International Workshop on Advanced Infrared Technology and Applications (AITA 2023)

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**Citation:** Bison, P.; Cadelano, G.; D'Acunto, M.; Ferrarini, G.; Maldague, X.; Martyniuk, P.; Moroni, D.; Raimondi, V.; Rogalski, A.; Sakagami, T.; et al. 17th International Workshop on Advanced Infrared Technology and Applications (AITA 2023). *Eng. Proc.* **2023**, *51*, 51. <https://doi.org/10.3390/engproc2023051051>

Published: 6 August 2024



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## 1. Introduction

AITA is an international conference that has run since 1992 and is aimed at assessing the state of the art of the infrared spectral range technology and to present its most interesting applications. Venice was initially selected to host the XVI edition of AITA, which was planned for 2021; however, due to the pandemic, an in-person meeting was not feasible. As a result, AITA 2021 was conducted online, and the in-person gathering in Venice was rescheduled for 2023.

The 17th International Workshop on Advanced Infrared Technology and Applications (AITA 2023) was organized in Venice by the following institutions:

- Istituto per le Tecnologie della Costruzione (CNR-ITC);
- Istituto di Fisica Applicata "Nello Carrara" (CNR-IFAC);
- Istituto di Scienza e Tecnologie dell'Informazione "Alessandro Faedo" (CNR-ISTI);
- Istituto di Biofisica (CNR-IBF);
- Istituto di Scienze dell'Atmosfera e del Clima (CNR-ISAC);
- Politecnico di Torino, DAD;
- Fondazione "Giorgio Ronchi".

Moreover, two institutions offered their patronage to the event: The Italian Association of Infrared Thermography, Diagnostics and Condition Monitoring (AITI—DMC) and the Italian Society for Nondestructive Testing and Monitoring Diagnostics (AIPnD).

## 2. Conference Dates

The event was held at the Iuav University in Venice from 10–13 September 2023. The technical program was organized into nine sessions covering the following topics: the

Under 35 Best Paper Award, non-destructive testing, sensors, image processing, remote sensing, and biomedical.

The event was held in the same location as the European Conference on Thermo-physical Properties (ECTP 2023). The opportunity to share the venue with other scientists working on similar subjects further enriched the event.

A plenary lecture was given on Monday by Professor Alessandro De Angelis. His contribution, entitled *The role of light from Galileo's Starry Messenger to modern measurement in infrared astronomy*, described the life and discoveries of Galileo Galilei and how his findings still influence current scientific research in many ways.

Almost 50 papers were submitted to the conference and are published in a Special Issue of MDPI's *Engineering Proceedings* (<https://www.mdpi.com/2673-4591/51/1>).

A Special Issue of Elsevier's *Infrared Physics & Technology* journal was also organized and, after a careful peer-review process, several papers from the event were selected for it.

### 3. The Sixth Under 35 Best Paper Award

For the sixth time at the AITA Conference, a Best Paper Award for authors under 35 years old was assigned by the AITA Committee. The award is named after Ermanno Grinzato, who held the role of AITA co-chairman for many years and was a well-known scientist in the thermography community. The award supports young scientists who are involved in scientific research on the topics covered at the conference.

The fourteen candidates submitted works of great interest to the AITA community, and due to the high quality of the contributions, the Award Committee decided to assign the prize equally to the following three authors:

- Ilse Maria Ermini (development and application of a rapid scan technique for emissivity measurements of cooled down molten materials);
- Tatsuhito Morimoto (improvement of anticorrosion coating thickness measurements using multi-wavelength lock-in infrared data processing)
- Francesco Conti (Alzheimer's disease detection using Raman spectroscopy of cerebrospinal fluid)

### 4. Committees

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The entire AITA committee is deeply saddened by the loss of Dr. Carosena Meola, a member of the conference Scientific Committee, who has recently passed away.

##### 5. AITA 2025

We are pleased to announce that the 18th Edition of AITA will take place in Kobe (Japan) in 2025.

**Acknowledgments:** We would like to thank the companies Teledyne FLIR and Telops for supporting this event.

**Conflicts of Interest:** The authors declare no conflicts of interest.

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