# **Special Issue**

# A Journey into Microwave Imaging and Sensing for Biomedical Applications: Recent Trends and Technologies

# Message from the Guest Editors

In recent years, there has been renewed interest in the development of microwave imaging and radar-based systems for biomedical applications and vital sign detection and analysis. Intelligent medical imaging offers significant advantages, including high speed, super-resolution images, and cost-effectiveness. Machine learning (ML) and deep learning (DL) techniques, which integrate big data and highperformance computing, have significantly advanced the study and application of these systems. This Special Issue will be devoted to exploring recently developed medical microwave imaging devices, encompassing machine learning theory, new imaging methods and devices, and signal and image processing techniques. We will highlight applications of microwave imaging, vital sign detection, and multimodal imaging more generally. Potential topics include but are not limited to:

- machine learning
- microwave imaging
- deep learning
- diagnostic imaging
- detection
- hyperthermia
- radar
- vital signs
- inverse problem

#### **Guest Editors**

Prof. Dr. Helene Roussel

Prof. Dr. Claire Migliaccio

Dr. Nadine Joachimowicz

## Deadline for manuscript submissions

28 February 2026



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Sensors
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
sensors@mdpi.com

mdpi.com/journal/ sensors





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## Message from the Editor-in-Chief

Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

#### Editor-in-Chief

### Prof. Dr. Vittorio M. N. Passaro

Dipartimento di Ingegneria Elettrica e dell'Informazione (Department of Electrical and Information Engineering), Politecnico di Bari, Via Edoardo Orabona n. 4, 70125 Bari, Italy

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