



sensors



an Open Access Journal by MDPI

Millimeter-Wave Antenna Arrays: Design, Challenges, and Applications

Guest Editors:

Dr. Giulia Buttazoni

Department of Engineering and Architecture (DIA), University of Trieste, Via A. Valerio 10, 34127 Trieste, Italy

Dr. Massimiliano Comisso

Department of Engineering and Architecture (DIA), University of Trieste, Via A. Valerio 10, 34127 Trieste, Italy

Prof. Dr. Fulvio Babich

Department of Engineering and Architecture (DIA), University of Trieste, Via A. Valerio 10, 34127 Trieste, Italy

Deadline for manuscript submissions:

closed (20 April 2023)

Message from the Guest Editors

The growing interest in the exploitation of the millimeter-wave domain for satisfying the increasing capacity demands of forthcoming spatial and terrestrial wireless systems has raised novel significant challenges to antenna array designers. On the one hand, the possibility to package many elements in a limited space, the need to manage specific propagation and interference conditions, and the expected implementation of IoT and Internet of Everything (IoE) paradigms, require novel processing and synthesis techniques. On the other hand, the significant attenuations that characterize the mmWave propagation environment proposes to extend or rethink well-established channel access strategies, with the purpose of exploiting the directionality of the links for enabling operations in dense network scenarios.

This Special Issue will present a comprehensive overview of the state-of-the-art multi-antenna solutions for 5G cellular systems, satellite/nanosatellite constellations, drone swarms, and WPANs/WLANs, with the aim of providing novel insights on the design, simulation, implementation, testing, and application of antenna arrays in EHF-based next-generation networks.



mdpi.com/si/32703

Special Issue



sensors



an Open Access Journal by MDPI

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

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.

Author Benefits

Open Access : free for readers, with [article processing charges \(APC\)](#) paid by authors or their institutions.

High Visibility: indexed within [Scopus](#), [SCIE \(Web of Science\)](#), [PubMed](#), [MEDLINE](#), [PMC](#), [Ei Compendex](#), [Inspec](#), [Astrophysics Data System](#), and [other databases](#).

Journal Rank: JCR - Q2 (*Instruments & Instrumentation*) / CiteScore - Q1 (*Instrumentation*)

Contact Us

Sensors Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/sensors
sensors@mdpi.com
[X@Sensors_MDPI](#)