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Editorial

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This Special Issue of the 53rd European Microwave Conference (EuMC 2023) is part of a trilogy of special issues for the European Microwave Week (EuMW 2023), whose 26th edition took place from September 17 to 22, 2023, in Berlin, Germany. EuMW 2023 was organized by the European Microwave Association and chaired by Prof. Thomas Zwick. As one of the three sister conferences within EuMW, EuMC is Europe's premier technical conference, covering a broad spectrum of high-frequency-related topics, including materials, technologies, circuits, systems, and applications. It addresses all these aspects comprehensively: theory, simulation, design, and measurement.

The 53rd EuMC 2023 took place from September 19–21, 2023, as part of EuMW 2023. With an impressive 375+ paper submissions in 2023, the event demonstrated the continued strong interest and engagement of the European microwave community. The authors of the top-rated papers were invited to submit extended manuscripts to this Special Issue of the *International Journal of Microwave and Wireless Technologies (IJMWT)*. All submitted manuscripts underwent the journal's standard peer review process to ensure quality and relevance.

As the guest editors of this EuMC 2023 Special Issue, we would like to warmly thank all authors for their excellent contributions and the reviewers for their professional and timely efforts in reviewing the manuscripts.

The research topics featured in this Special Issue highlight significant advancements in radio frequency, microwave, and terahertz (THz) technologies. They focus on cutting-edge circuit designs, measurement techniques, and integration strategies for next-generation networks and applications. Key studies address enhancing 5G-Advanced capabilities, improving bit efficiency in massive multiple-input–multiple-output systems, and comparing electronic and optoelectronic signal generation for (sub-)THz communications. Innovative approaches are also explored in compact measurement systems, beam-steering antennas, and high-frequency packaging strategies. Furthermore, the development of advanced filters, combiners, and waveguide components with multifunctional, tunable, and high-selectivity characteristics showcases progress in improving signal integrity and overall system performance across various applications. These innovations address the growing demands of modern wireless and high-frequency systems.

In conclusion, we hope you enjoy reading this EuMC 2023 Special Issue and warmly invite you to submit your recent research findings to the *International Journal of Microwave and Wireless Technologies*!



Amelie Hagelauer received the Dipl.-Ing. degree in Mechatronics in 2007 and her Dr.-Ing. degree in Electrical Engineering in 2013, both from Friedrich-Alexander-Universität Erlangen-Nürnberg (FAU), Erlangen, Germany. In November 2007, she joined the FAU Institute for Electronics Engineering, where she conducted research on bulk acoustic wave (BAW) technologies. Since 2013, her research has focused on surface and bulk acoustic wave (SAW/BAW) components, RF MEMS technologies, and microwave

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Ilona Rolfes received the Dipl.-Ing. and Dr. Ing. degrees in electrical engineering from Ruhr University Bochum, Bochum, Germany, in 1997 and 2002, respectively. From 1997 to 2005, she was a research assistant with the High Frequency Measurements Research Group, Ruhr University Bochum. From 2005 to 2009, she was a junior professor with the Department of Electrical Engineering, Leibniz University

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