CALL FOR PAPERS

Special Issue on Microwave, Millimeter and Terahertz Techniques in Medical, Biological, and Biomedical Engineering

This Special Issue aims to present the recent development of advanced electromagnetics, microwave, millimeter/terahertz techniques for medical, biological, and biomedical applications. Submissions are encouraged of original and high-quality review papers with scopes in state-of-the-art research related to electromagnetic theory, techniques, and integration for medical and biological applications, including but not limited to RF and microwave diagnostic and therapeutic systems; electromagnetic imaging; radiometry and thermography; computational methods for bio-electromagnetics; implantable and wearable diagnostic and therapeutic systems; radar for remote or noninvasive monitoring and tracking; electromagnetic sensors and devices or biomedical applications. The articles will include data from experiments, computational simulations, and/or models.

Topic Areas

• **Sources**: Microwave devices, vacuum tube-based sources, free-electron lasers, synchrotrons, gas lasers, quantum cascade lasers
• **Detectors**: THz detectors, microwave antenna and antenna arrays, electromagnetic sensors, radar for remote or noninvasive monitoring and tracking
• **Devices**: Modulators, reflectors, filters, waveguides, metamaterial-based devices, RF ablation therapeutic devices and instruments
• **Systems**: Emitter-receiver systems, imaging systems, RF and microwave integrated circuits, diagnostic and therapeutic systems, implantable and wearable diagnostic and therapeutic systems
• **Spectroscopy**: Interaction between THz waves and all states of matter including THz spectroscopy on solids, liquids, gases, and plasmas
• **Applications**: Human physiological sensing and biomedical imaging, biological analyses, healthcare systems, noninvasive monitoring and tracking, noninvasive medical diagnostic, biomedical sensing, RF ablation therapeutics, pharmaceutical industry
• **Computational methods for bioelectromagnetics**

Publication Target Dates

- Paper submission deadline: December 9, 2022
- Initial review completed: March 3, 2023
- Special Issue publication date: May 2023

Submission Instructions

Papers should be submitted electronically to the journal at journaltool.asme.org. If you already have an account, log in as author and select Submit Paper at the bottom of the page. If you do not have an account, select Submissions and follow the steps. In either case, at the Paper Submittal page, select the ASME Journal of Engineering and Science in Medical Diagnostics and Therapy and then select the Special Issue Microwave, Millimeter and Terahertz Techniques in Medical, Biological, and Biomedical Engineering.

Papers received after the deadline or papers not selected for inclusion in the Special Issue may be accepted for publication in a regular issue.

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