Special Issue

Terahertz Imaging and Tomography with FMCW Radars

Message from the Guest Editor

Frequency-Modulated Continuous-Wave (FMCW) radars operating in the terahertz (THz) range offer unique capabilities for high-resolution and noninvasive sensing, imaging, and tomography. Combining wide bandwidths with coherent detection, THz FMCW systems enable submillimeter depth resolution, penetration through optically opaque materials, and enhanced contrast in complex media. This Special Issue aims to showcase recent advances in THz FMCW technology, including hardware innovations, novel signal processing algorithms, and emerging applications in areas such as biomedical imaging, nondestructive testing, cultural heritage inspection, security screening, and industrial process monitoring. Contributions exploring hybrid systems (e.g., combining time-domain or near-field techniques), compact on-chip solutions or novel architectures (e.g., topological beamformers), and advanced data processing are particularly encouraged to be submitted.

Guest Editor

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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.

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