

Special Issue

Advances in Ultrasound Diagnosis and Treatment

Message from the Guest Editors

Ultrasound imaging has become a cornerstone of modern medical diagnostics due to its real-time capability, non-invasiveness, portability, and cost-effectiveness. Recent technological advances—spanning hardware miniaturization, AI integration, and novel signal processing—have greatly expanded its diagnostic and therapeutic scope. In particular, new frontiers such as wearable ultrasound systems, super-resolution imaging, and advanced elastography are enabling continuous, high-resolution monitoring of physiological and pathological changes. Therapeutic applications like focused ultrasound (FUS) are also advancing non-invasive treatments in neurology, oncology, and cardiology.

This Special Issue aims to showcase the latest developments in ultrasound diagnosis and treatment. We invite original research and comprehensive reviews addressing innovations in imaging techniques (e.g., Doppler, QUS, and CEUS), beamforming, super-resolution, AI-driven analysis, wearable and implantable ultrasound devices, and therapeutic ultrasound systems. This collection will serve as a valuable reference for advancing the utility and scientific understanding of next-generation ultrasound technologies.

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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