Special Issue

Computational Ultrasound Imaging and Applications

Message from the Guest Editors

The availability of enormous computational resources has spurred the recent transition from fixed-purpose devices to software-defined ultrasound platforms. This paradigm shift enables new signal processing approaches that can vastly improve the performance of an ultrasound imaging system: transitioning the image formation from conventional scanning to computational beamforming allows recording at very high framerates. Adaptive imaging and aberration correction allows one to image through scattering media. These advancements have the potential to open up a broad variety of new applications: medical imaging and diagnostics, such as functional ultrasound, experimental research of complex, turbulent flows and in situ imaging of industrial processes in harsh environments. This Special Issue addresses the recent trend towards computational ultrasound imaging. It welcomes contributions (research articles or reviews) from a broad spectrum of fields, which focus on methods, implementation and applications of computational ultrasound imaging.

Guest Editors

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Dr. Lars Buettner

Prof. Dr. Jürgen W. Czarske

Deadline for manuscript submissions

closed (28 February 2023)

Applied Sciences

an Open Access Journal by MDPI

Impact Factor 2.5
CiteScore 5.5

mdpi.com/si/79824

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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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