Computational Ultrasound Imaging and Applications, 2nd Edition

Guest Editors:

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Dr. Lars Buettner

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Message from the Guest Editors

Dear Colleagues,

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. These advancements have the potential to open up a broad variety of new applications: medical imaging and diagnostics, experimental research of complex, turbulent flows and in situ imaging of industrial processes in harsh environments.

This Special Issue addresses the recent trend toward computational ultrasound imaging. It welcomes contributions (original research articles or reviews) from a broad spectrum of fields, which focus on the methods, implementation and applications of computational ultrasound imaging.

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Special Issue

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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.

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