

CALL FOR PAPERS

Special Issue on Super-resolution Ultrasound Imaging

(Submission deadline: **31 May 2022**)

In less than a decade contrast-enhanced super-resolution or ultrasound localization microscopy approaches have significantly expanded the capabilities of ultrasound imaging. Characterizing vascular networks with a resolution of 10 microns is now routinely possible using commercial scanners and probes. Extensive research efforts have been dedicated to developing and validating pre-clinical imaging methods, often leveraging ultra-fast imaging methods and technological capabilities of high frame-rate ultrasound scanners. These methods and techniques are increasingly being investigated in the context of clinical applications, ranging from brain imaging to tumor microvascular characterization.

Super-resolution imaging is typically associated with soft tissue imaging that exceeds the wavelength resolution limits, usually in combination with gas-filled microbubble contrast agents and ultra-fast imaging. However, this definition can be broadened to include all ultrasound imaging approaches that exceed the wavelength resolution limit, regardless of the source of contrast or imaging frame rates.

The IEEE Open Journal on Ultrasonics, Ferroelectrics, and Frequency Control (OJ-UFFC) invites submissions of manuscripts on “Super-resolution Ultrasound Imaging” that fall within the scope of the UFFC Society. This special issue seeks contributions from authors who are engaged in any aspect of super-resolution imaging, design, implementation, and use. Review articles and original contributions are sought in a wide range of topics including, but not limited to, the following:

- Clinical translation
- Pre-clinical models and validation
- Imaging and beamforming approaches in 2D and 3D
- Transcranial imaging
- Motion correction
- Filtering and bubble detection approaches
- Computational methods and data management

All contributions should be submitted online [here](#), the Manuscript Central system of IEEE Open Journal on UFFC. When submitting, authors should state in the cover letter that the submission is intended for the Special Issue on “Super-resolution ultrasound imaging”, and they should clearly highlight how their manuscript is topically aligned with this area. All manuscripts will be subjected to peer review. The submission deadline is **31 May 2022**. Accepted special issue manuscripts will be published in the IEEE Open Journal on Ultrasonics, Ferroelectrics, and Frequency Control in the third quarter of 2022.

The guest editors for this special issue are:

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