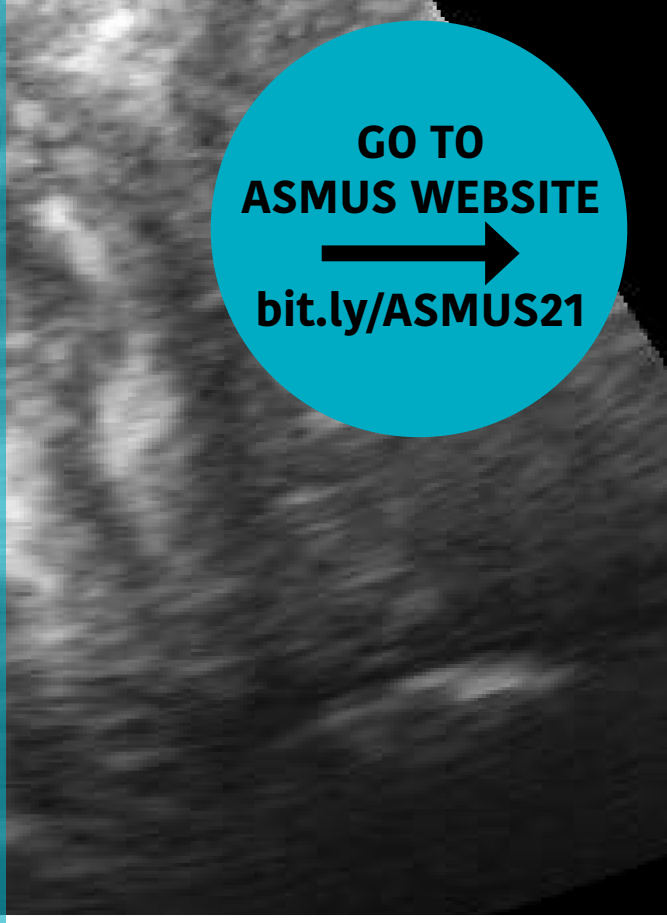
MICCAI Advances in Simplifying Medical UltraSound

ASMUS

WORKSHOP 2021

CALL FOR PAPERS



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bit.ly/ASMUS21

The second international workshop on Advances in Simplifying Medical UltraSound (ASMUS) will bring together the MICCAI research community working towards the next generation of medical ultrasound imaging methods and systems. We envisage a future for clinical ultrasound that truly combines advances both in medical image computing (MIC) and computer-assisted intervention (CAI), acknowledging this uniquely operator driven imaging modality and future robotic systems.

In this exciting era for medical ultrasound, recent developments in deep learning (artificial intelligence) and medical robotics have started to show clinically measurable improvement in assisting ultrasound examinations, ultrasound-guided interventions and surgery. This year, ASMUS is soliciting full-length paper submissions, including work from the following areas:

Ultrasound Assisted by Artificial Intelligence and Medical Robotics

- Ultrasound imaging with robotic (automated) assistance
- Machine learning methods in ultrasound analysis and guidance
- Automated interpretation and measurement for ultrasound
- Ultrasound quality and skills assessment

Multimodality Ultrasound Imaging

- Ultrasound with other non-imaging sensory information, e.g. positional and eye tracking
- Ultrasound with another pre-/intra-procedural imaging, e.g. camera videos, CT, MR, fluorescence
- Different modes of ultrasound imaging, e.g. photoacoustic, Doppler, functional ultrasound, tissue quantification

Applications

- Global healthcare
- Training sonographers and other users
- Assisting non-expert healthcare professionals
- Point-of-care ultrasound systems and scenarios
- Assisting surgery and interventions
- Streamlining clinical ultrasound workflow
- Sonography data science

CALL FOR PAPERS AND DEMONSTRATIONS

SUBMISSION DEADLINE

25 June 2021

NOTIFICATION OF ACCEPTANCE

16 July 2021

CAMERA READY PAPERS

30 July 2021

WORKSHOP

27 September 2021

Papers will consist of maximum 8 pages (text, figures and tables) + up to 2 pages for references only. They are to be submitted electronically in Springer LNCS (Lecture Notes in Computer Science) style, double blind review, via the website.

The papers will be evaluated by external reviewers and our organizing committee for inclusion in the workshop as a presentation (oral or poster). Accepted full-length manuscripts will be published with Springer LNCS and the best papers will be selected for industry-sponsored awards. Original research contributions are invited. Proof-of-concept research from novel research directions is also encouraged.

One of the popular features of ASMUS 2020, live demonstrations, will be repeated in ASMUS 2021. Capitalising on the unique real-time and portability aspects of ultrasound-based applications, we plan for live demonstrations covering AI, interventional and robotics areas. All accepted papers will be offered the option to present a live demonstration.