Special Interest Group Medical Ultrasound (SIG-MUS)

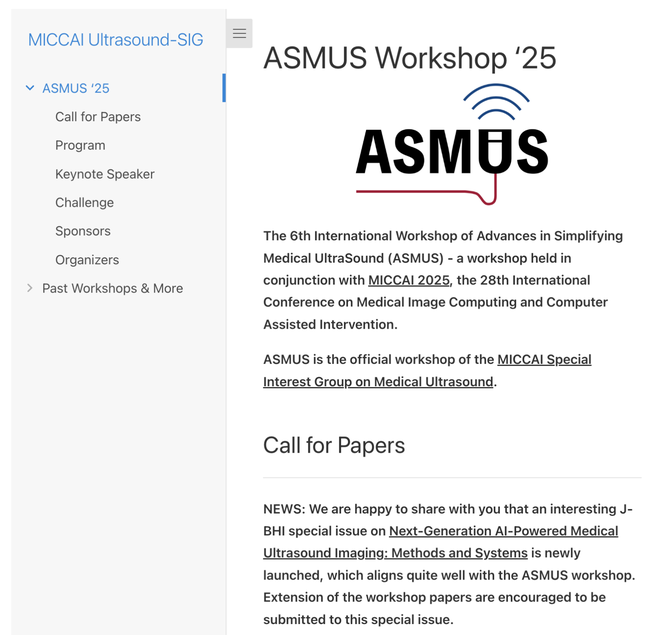
Medical Ultrasound
A MICCAI Special Interest Group

Our Mission

SIG-MUS aims to bring together the medical image computing (MIC) and computer-assisted intervention (CAI) communities to work towards the next generation of medical ultrasound imaging methods and systems. We envisage a future for clinical ultrasound that truly combines advances both in MIC and CAI, acknowledging the unique capabilities of ultrasound as an interactive anatomic and functional imaging modality that can be manipulated directly by human operators or robotic systems. This SIG also helps bridge the research and clinical ultrasound communities to design and implement new ultrasound-enabled applications that provide revolutionary healthcare benefits.

International Workshops

ASMUS 2025
ASMUS 2024
ASMUS 2023
ASMUS 2022
ASMUS 2021
ASMUS 2020
POCUS Workshop 2018
POCUS Workshop 2017



Associated Challenges and Tutorials

IUGC 2025: Landmark Detection Challenge for Intrapartum Ultrasound Measurement Meeting the Actual Clinical Assessment of Labor Progress
TUS-REC 2024, 2025: Trackerless 3D Freehand Ultrasound Reconstruction Challenge
Thyroid 2020: Thyroid Nodule Segmentation and Classification in Ultrasound Images
SlicerIGT 2018: Hands-on Tutorial on Rapid Prototyping of Ultrasound-Guided Intervention Systems

The Ultrasound Working Group - collaboration with MONAI

- ✓ 120 members and growing
- ✓ Bi-weekly lectures, followed by breaking into four subgroups
  - B-Mode Segmentation (e.g., US-TotalSegmentator)
  - DICOM & Data Streaming (e.g., De-identification, Import/Export)
  - RF Algorithms (e.g., Speed of sound estimation, Simulation)
  - Advanced Applications (e.g., Robotics, AR/VR)

Please register your interest with the SIG-MUS!