# ASMUS 2021 – Full Program

| TIME (UTC) | SESSION | SPEAKER(S) | CHAIR(S) |
|---|---|---|---|
| **09:35 – 09:50** | Opening Remarks & Introductions | Alison Noble | |
| **09:50 – 10:50** | Presentation 1<br><br>Full Presentations (10 min. + 3 min. Q&A) | | Andy King<br>Bernhard Kainz |
| | *"An Efficient Tracker for Thyroid Nodule Detection and Tracking during Ultrasound Scanning"* | Ting Liu | |
| | *"Towards Scale and Position Invariant Task Classification using Normalised Visual Scanpaths in Clinical Fetal Ultrasound"* | Clare Teng | |
| | *"Adaptable image quality assessment using meta-reinforcement learning of task amenability"* | Shaheer Saeed | |
| | Lightning Talks (3 min.) | | |
| | *"Endoscopic ultrasound image synthesis using a cycle-consistent adversarial network"* | Alex Grimwood | |
| | *"Realistic Ultrasound Image Synthesis for Improved Classification of Liver Disease"* | Ilker Hacihaliloglu | |
| | *"TransBridge: A lightweight transformer for left ventricle segmentation in echocardiography"* | Kaizhong Deng | |
| | *"Contrastive Learning for View Classification of Echocardiograms"* | Agisilaos Chartsias | |
| **10:50 – 11:00** | Break | | |
| **11:00 – 11:35** | Keynote | | Stephen Aylward |
| | *"MONAI & Nvidia AGX powered speed of light research prototyping and product development"* | Prerna Dogra | |

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| **11:35 – 12:05** | Demonstration 1 | | Zachary Baum<br>Ana Namburete |
| | *"3D localization of 2D freehand fetal brain ultrasound images"* | Hugo Yeung | |
| | *"AutoDVT – Automatic detection of deep vein thrombosis"* | Bernhard Kainz | |
| | *"ITKPOCUS – Getting POCUS data into your AI"* | Brad Moore | |
| **12:05 – 12:15** | Break | | |
| **12:15 – 13:15** | Presentation 2 | | Alex Grimwood<br>Thomas van den Heuvel |
| | Full Presentations (10 min. + 3 min. Q&A) | | |
| | *"Automatic tomographic ultrasound imaging sequence extraction of the anal sphincter"* | Helena Williams | |
| | *"Pruning MobileNetV2 for Efficient Implementation of Minimum Variance Beamforming"* | Sobhan Goudarzi | |
| | *"Efficient Echocardiogram View Classification with Sampling-Free Uncertainty Estimation"* | Ang Nan Gu | |
| | Lightning Talks (3 min.) | | |
| | *"Adversarial Affine Registration for Real-time Intraoperative Registration of 3-D US-US for Brain Shift Correction"* | Marek Wodzinski | |
| | *"Application potential of robot-guided ultrasound during CT-guided interventions"* | Josefine Schreiter | |
| | *"Pose Estimation of 2D Ultrasound Probe from Ultrasound Image Sequences Using CNN and RNN"* | Kanta Miura | |
| | *"Development and evaluation of intraoperative ultrasound segmentation with negative image frames and multiple observer labels"* | Liam Chalcroft | |
| **13:15 – 14:00** | Break | | |
| **14:00 – 14:15** | Q&A – Prerna Dogra | Prerna Dogra | Stephen Aylward |
| **14:15 – 14:50** | Keynote | | Parvin Mousavi |
| | *"Ultrasound image formation in the deep learning age"* | Muyinatu Bell | |

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| **14:50 – 15:20** | Demonstration 2 | | Zachary Baum<br>Ekaterina Zilonova |
| | *"Real-time segmentation of breast tumors to improve surgical navigation"* | Tamas Ungi | |
| | *"ADAPTS (Artificial intelligence Diagnostic And Prognostic Tools for Sonography) for real-time ultrasound assessment and COVID-19 diagnosis"* | Zachary Baum | |
| **15:20 – 16:20** | Presentation 3 | | Zhe Min<br>Emad Boctor |
| | Full Presentations (10 min. + 3 min. Q&A) | | |
| | *"Deep Video Networks for Automatic Assessment of Aortic Stenosis in Echocardiography"* | Tom Ginsberg | |
| | *"Automatic ultrasound vessel segmentation with deep spatiotemporal context learning"* | Baichuan Jiang | |
| | *"Evaluation of low-cost hardware alternatives for 3D freehand ultrasound reconstruction in image-guided neurosurgery"* | Étienne Léger | |
| | Lightning Talks (3 min.) | | |
| | *"Imaging Biomarker Knowledge Transfer for Attention-based Diagnosis of COVID-19 in Lung Ultrasound Videos"* | Tyler Lum | |
| | *"Lung Ultrasound Segmentation and Adaptation between COVID-19 and Community-Acquired Pneumonia"* | Zachary Baum | |
| | *"Automatic fetal gestational age estimation from first trimester scans"* | Sevim Cengiz | |
| | *"Multimodal continual learning with sonographer eye-tracking in fetal ultrasound"* | Arijit Patra | |
| | *"Robust ultrasound-to-ultrasound registration for intra-operative brain shift correction with a Siamese neural network"* | Amir Pirhadi | |
| **16:20 – 16:30** | Break | | |
| **16:30 – 17:00** | Closing Remarks & Prizes | Stephen Aylward | |