ASMUS 2021 – Full Program

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| Time (UTC) | Session | Speaker(s) | Chair(s) |
| 09:00 – 09:15 | Opening Remarks & Introductions | Alison Noble |  |
| 09:15 – 09:50 | Keynote  *“MONAI & Nvidia AGX powered speed of light research prototyping and product development”* | Prerna Dogra | Stephen Aylward |
| 09:50 – 10:50 | Presentation 1  *“An Efficient Tracker for Thyroid Nodule Detection and Tracking during Ultrasound Scanning”*  *“Towards Scale and Position Invariant Task Classification using Normalised Visual Scanpaths in Clinical Fetal Ultrasound”*  *“Adaptable image quality assessment using meta-reinforcement learning of task amenability”*  *“Endoscopic ultrasound image synthesis using a cycle-consistent adversarial network”*  *“Realistic Ultrasound Image Synthesis for Improved Classification of Liver Disease”*  *“TransBridge: A lightweight transformer for left ventricle segmentation in echocardiography”*  *“Contrastive Learning for View Classification of Echocardiograms”* | Ting Liu  Clare Teng  Shaheer Saeed  Alex Grimwood  Ilker Hacihaliloglu  Kaizhong Deng  Agisilaos Chartsias | Andy King  Bernhard Kainz |
| 10:50 – 11:00 | Break |  |  |
| 11:00 – 11:35 | Keynote  *“Towards clinical applications of artificial intelligence in ultrasound imaging”* | Ali Kamen | Wolfgang Wein |
| 11:35 – 12:05 | Demonstration 1  *“3D localization of 2D freehand fetal brain ultrasound images”*  *“AutoDVT – Automatic detection of deep vein thrombosis”*  *“ITKPOCUS – Getting POCUS data into your AI”* | Hugo Yeung  Fouad Al-Noor  Brad Moore | Zachary Baum  Ana Namburete |
| 12:05 – 12:15 | Break |  |  |
| 12:15 – 13:15 | Presentation 2  *“Automatic tomographic ultrasound imaging sequence extraction of the anal sphincter”*  *“Pruning MobileNetV2 for Efficient Implementation of Minimum Variance Beamforming”*  *“Efficient Echocardiogram View Classification with Sampling-Free Uncertainty Estimation”*  *“Adversarial Affine Registration for Real-time Intraoperative Registration of 3-D US-US for Brain Shift Correction”*  *“Application potential of robot-guided ultrasound during CT-guided interventions”*  *“Pose Estimation of 2D Ultrasound Probe from Ultrasound Image Sequences Using CNN and RNN”*  *“Development and evaluation of intraoperative ultrasound segmentation with negative image frames and multiple observer labels”* | Helena Williams  Sobhan Goudarzi  Ang Nan Gu  Marek Wodzinski  Josefine Schreiter  Kanta Miura  Liam Chalcroft | Alex Grimwood  Thomas van den Heuvel |
| 13:15 – 14:00 | Break |  |  |
| 14:00 – 14:15 | Q&A – Prerna Dogra | Prerna Dogra | Parvin Mousavi |
| 14:15 – 14:50 | Keynote  *“Ultrasound image formation in the deep learning age”* | Muyinatu Bell | Parvin Mousavi |
| 14:50 – 15:20 | Demonstration 2  *“Real-time segmentation of breast tumors to improve surgical navigation”*  *“ADAPTS (Artificial intelligence Diagnostic And Prognostic Tools for Sonography) for real-time ultrasound assessment and COVID-19 diagnosis”* | Tamas Ungi  Zachary Baum | Zachary Baum  Ekaterina Zilonova |
| 15:20 – 16:20 | Presentation 3  *“Deep Video Networks for Automatic Assessment of Aortic Stenosis in Echocardiography”*  *“Automatic ultrasound vessel segmentation with deep spatiotemporal context learning”*  *“Evaluation of low-cost hardware alternatives for 3D freehand ultrasound reconstruction in image-guided neurosurgery”*  *“Imaging Biomarker Knowledge Transfer for Attention-based Diagnosis of COVID-19 in Lung Ultrasound Videos”*  *“Lung Ultrasound Segmentation and Adaptation between COVID-19 and Community-Acquired Pneumonia”*  *“Automatic fetal gestational age estimation from first trimester scans”*  *“Multimodal continual learning with sonographer eye-tracking in fetal ultrasound”*  *“Robust ultrasound-to-ultrasound registration for intra-operative brain shift correction with a Siamese neural network”* | Tom Ginsberg  Baichuan Jiang  Étienne Léger  Tyler Lum  Zachary Baum  Sevim Cengiz  Arijit Patra  Amir Pirhadi | Zhe Min  Emad Boctor |
| 16:20 – 16:30 | Break |  |  |
| 16:30 – 17:00 | Closing Remarks & Prizes | Stephen Aylward |  |