5th Oct : 10:30 UTC

zoom 1: Histopathology Image Analysis A

1263: Tracing Diagnosis Paths on Histopathology WSIs for Diagnostically Relevant Case Recommendation

178: Renal Cell Carcinoma Detection and Subtyping with Minimal Point-Based Annotation in Whole-Slide Images

186: Censoring-Aware Deep Ordinal Regression for Survival Prediction from Pathological Images

2160: Weakly supervised multiple instance learning histopathological tumor segmentation

26: Pairwise Relation Learning for Semi-supervised Gland Segmentation

78: Ranking-Based Survival Prediction on Histopathological Whole-Slide Images

zoom 2: Functional Brain Networks A

1077: Estimating Common Harmonic Waves of Brain Networks on Stiefel Manifold

1118: Neural Architecture Search for Optimization of Spatial-temporal Brain Network Decomposition

1500: Attention-Guided Deep Graph Neural Network for Longitudinal Alzheimer's Disease Analysis

2049: Enriched Representation Learning in Resting-State fMRI for Early MCI Diagnosis

2938: Whole MILC: generalizing learned dynamics across tasks, datasets, and populations

zoom 3: Self-supervised learning A

1041: Test-time Unsupervised Domain Adaptation

1682: Self domain adapted network

2127: Entropy Guided Unsupervised Domain Adaptation for Cross-Center Hip Cartilage Segmentation from MRI

394: Dual-task Self-supervision for Cross-Modality Domain Adaptation

511: Dual-Teacher: Integrating Intra-domain and Inter-domain Teachers for Annotation-efficient Cardiac Segmentation

zoom 4: Segmentation - General A

1284: Pay More Attention to Discontinuity for Medical Image Segmentation

1389: Learning 3D Features with 2D CNNs via Surface Projection for CT Volume Segmentation

2040: Deep Class-specific Affinity-Guided Convolutional Network for Multimodal Unpaired Image Segmentation

2045: Memory-efficient Automatic Kidney and Tumor Segmentation Based on Non-local Context Guided 3D U-Net

50: TexNet: Texture Loss Based Network for Gastric Antrum Segmentation in Ultrasound

530: Multi-organ Segmentation via Co-training Weight-averaged Models from Few-organ Datasets

575: Suggestive Annotation of Brain Tumour Images with Gradient-guided Sampling

zoom 5: Lung Applications A

1180: Region Proposals for Saliency Map Refinement for Weakly-supervised Disease Localisation and Classification

1343: CPM-Net: A 3D Center-Points Matching Network for Pulmonary Nodule Detection in CT Scans

242: Hierarchical Classification of Pulmonary Lesions: A Large-Scale Radio-Pathomics Study

440: Learning Tumor Growth via Follow-Up Volume Prediction for Lung Nodules

774: Multi-stream Progressive Up-sampling Network for Dense CT Image Reconstruction

864: Abnormality Detection in Chest X-ray Images Using Uncertainty Prediction Autoencoders

zoom 6: Image Registration A

1063: Pair-wise and Group-wise Deformation Consistency in Deep Registration Network

1159: Semantic Hierarchy Guided Registration Networks for Intra-Subject Pulmonary CT Image Alignment

1424: Highly accurate and memory efficient unsupervised learning-based discrete CT registration using 2.5D displacement search

2069: Unsupervised Learning Model for Registration of Multi-Phase Ultra-Widefield Fluorescein Angiography

531: MvMM-RegNet: A new image registration framework based on multivariate mixture model and neural network estimation

843: Database Annotation with few Examples: An Atlas-based Framework using Diffeomorphic Registration of 3D trees

5th Oct : 11:00 UTC

zoom 1: Histopathology Image Analysis B

1030: A Deformable CRF Model for Histopathology Whole-slide Image Classification

1234: Deep Active Learning for Breast Cancer Segmentation on Immunohistochemistry Images

2784: Multiple Instance Learning with Center Embeddings for Histopathology Classification

616: Divide-and-Rule: Self-Supervised Learning for Survival Analysis in Colorectal Cancer

764: Microscopic fine-grained instance classification through deep attention

zoom 2: DWI and Tractography A

1116: Tractogram filtering of anatomically non-plausible fibers with geometric deep learning

120: Tract Dictionary Learning for Fast and Robust Recognition of Fiber Bundles

122: Globally Optimized Super-Resolution of Diffusion MRI Data via Fiber Continuity

882: White Matter Tract Segmentation with Self-supervised Learning

952: Estimating Tissue Microstructure with Undersampled Diffusion Data via Graph Convolutional Neural Networks

zoom 3: Semi-supervised learning A

1133: Shape-aware Semi-supervised 3D Semantic Segmentation for Medical Images

1867: Local and Global Structure-aware Entropy Regularized Mean Teacher Model for 3D Left Atrium segmentation

2200: Improving dense pixelwise prediction of epithelial density using unsupervised data augmentation for consistency regularization

465: Deep Semi-supervised Knowledge Distillation for Overlapping Cervical Cell Instance Segmentation

532: DMNet: Difference Minimization Network for Semi-supervised Segmentation in Medical Images

647: Double-uncertainty Weighted Method for Semi-supervised Learning

zoom 4: Segmentation - General B

1134: Learning Sample-adaptive Intensity Lookup Table for Brain Tumor Segmentation

1230: Superpixel-Guided Label Softening for Medical Image Segmentation

1497: Revisiting Rubik's Cube: Self-supervised Learning with Volume-wise Transformation for 3D Medical Image Segmentation

1990: Robust Medical Image Segmentation from Non-expert Annotations with Tri-network

2268: Robust Fusion of Probability Maps

2537: Calibrated Surrogate Maximization of Dice

901: Deep Small Bowel Segmentation with Cylindrical Topological Constraints

zoom 5: Lung Applications B

1870: Cascaded Robust Learning at Imperfect Labels for Chest X-ray Segmentation

2029: Class-Aware Multi-Window Adversarial Lung Nodule Synthesis Conditioned on Semantic Features

2100: Nodule2vec: a 3D Deep Learning System for Pulmonary Nodule Retrieval Using Semantic Representation

2846: Deep Active Learning for Effective Pulmonary Nodule Detection

336: Interpretable Identification of Interstitial Lung Diseases (ILD) Associated Findings from CT

893: Learning with Sure Data for Nodule-Level Lung Cancer Prediction

zoom 6: Image Registration B

1501: Longitudinal Image Registration with Temporal-order and Subject-specificity Discrimination

2172: Flexible Bayesian Modelling for Nonlinear Image Registration

218: Large Deformation Diffeomorphic Image Registration with Laplacian Pyramid Networks

306: Adversarial Uni- and Multi-modal Stream Networks for Multimodal Image Registration

996: Cross-Modality Multi-Atlas Segmentation Using Deep Neural Networks

5th Oct : 11:30 UTC

zoom 1: Cell Segmentation and Stain Normalization A

1033: Structure Preserving Stain Normalization of Histopathology Images Using Self Supervised Semantic Guidance

1228: A Novel Loss Calibration Strategy for Object Detection Networks Training on Sparsely Annotated Pathological Datasets

1235: Histopathological Stain Transfer Using Style Transfer Network With Adversarial Loss

2229: Instance-aware Self-supervised Learning for Nuclei Segmentation

277: BCData: A Large-Scale Dataset and Benchmark for Cell Detection and Counting

34: Boundary-assisted Region Proposal Networks for Nucleus Segmentation

567: Weakly-Supervised Nucleus Segmentation Based on Point Annotations: A Coarse-to-Fine Self-Stimulated Learning Strategy

zoom 2: Neuroimaging A

1617: Joint Neuroimage Synthesis and Representation Learning for Conversion Prediction of Subjective Cognitive Decline

2057: Differentiable Deconvolution for Improved Stroke Perfusion Analysis

383: Topology-Aware Generative Adversarial Network for Joint Prediction of Multiple Brain Graphs from a Single Brain Graph

729: Edge-variational Graph Convolutional Networks for Uncertainty-aware Disease Prediction

840: Fisher-Rao Regularized Transport Analysis of the Glymphatic System and Waste Drainage

zoom 3: Semi-supervised learning B

1154: Knowledge-guided Pretext Learning for Utero-placental Interface Detection

1202: Self-supervised Depth Estimation to Regularise Semantic Segmentation in Knee Arthroscopy

1597: Semi-supervised Medical Image Classification with Global Latent Mixing

1833: Self-Loop Uncertainty: A Novel Pseudo-Label for Semi-Supervised Medical Image Segmentation

1927: Semi-Supervised Classification of Diagnostic Radiographs with NoTeacher: A Teacher that is not Mean

2775: Predicting Potential Propensity of Adolescents to Drugs via New Semi-Supervised Deep Ordinal Regression Model

zoom 4: Segmentation - General C

1096: Voxel2Mesh: 3D Mesh Model Generation from Volumetric Data

1408: Unsupervised Learning for CT Image Segmentation via Adversarial Redrawing

1467: Deep Active Contour Network for Medical Image Segmentation

2624: Learning Crisp Edge Detector Using Logical Refinement Network

2642: Defending Deep Learning-based Biomedical Image Segmentation from Adversarial Attacks: A Low-cost Frequency Refinement Approach

614: Uncertainty-Guided Efficient Interactive Refinement of Fetal Brain Segmentation from Stacks of MRI Slices

805: Widening the focus: biomedical image segmentation challenges and the underestimated role of patch sampling and inference strategies

zoom 5: Dermatology

468: A distance-based loss for smooth and continuous skin layer segmentation in optoacoustic images.

481: Fairness of Classifiers Across Skin Tones in Dermatology

494: Alleviating the Incompatibility between Cross Entropy Loss and Episode Training for Few-shot Skin Disease Classification

617: Clinical-Inspired Network for Skin Lesion Recognition

618: Multi-class Skin Lesion Segmentation for Cutaneous T-cell Lymphomas on High-Resolution Clinical Images

zoom 6: PET

1161: Multi-Modality Information Fusion for Radiomics-based Neural Architecture Search

1878: Lymph Node Gross Tumor Volume Detection in Oncology Imaging via Relationship Learning Using Graph Neural Network

2164: Rethinking PET Image Reconstruction: Ultra-Low-Dose, Sinogram and Deep Learning

2528: Clinically Translatable Direct Patlak Reconstruction from Dynamic PET with Motion Correction Using Convolutional Neural Network

59: Simultaneous Denoising and Motion Estimation for Low-dose Gated PET using a Siamese Adversarial Network with Gate-to-Gate Consistency Learning

89: Lymph Node Gross Tumor Volume Detection and Segmentation via Distance-based Gating using 3D CT/PET Imaging in Radiotherapy

5th Oct : 15:00 UTC

zoom 1: Biological/Optical/Microscopic Imaging A

2237: A Novel Approach to Tongue Standardization and Feature Extraction

255: Channel Embedding for Informative Protein Identification from Highly Multiplexed Images

2706: Patch-based Non-Local Bayesian Networks for Blind Confocal Microscopy Denoising

3008: Attention-guided Quality Assessment for Automated Cryo-EM Grid Screening

436: Demixing Calcium Imaging Data in C. elegans via Deformable Non-negative Matrix Factorization

555: Automated Measurements of Key Morphological Features of Human Embryos for IVF

zoom 2: Brain Development and Atlases A

1618: A New Metric for Characterizing Dynamic Redundancy of Dense Brain Chronnectome and Its Application to Early Detection of Alzheimer's Disease

1724: A computational framework for dissociating development-related from individually variable flexibility in regional modularity assignment in early infancy

1795: Domain-invariant Prior Knowledge Guided Attention Networks for Robust Skull Stripping of Developing Macaque Brains

2498: Parkinson's Disease Detection from fMRI-derived Brainstem Regional Functional Connectivity Networks

zoom 3: Self-supervised learning B

2256: Scribble-based Domain Adaptation via Deep Co-Segmentation

2553: Source-Relaxed Domain Adaptation for Image Segmentation

2612: Region-of-interest guided Supervoxel Inpainting for Self-supervision

2780: Harnessing Uncertainty in Domain Adaptation for MRI Prostate Lesion Segmentation

686: User-Guided Domain Adaptation for Rapid Annotation from User Interactions: A Study on Pathological Liver Segmentation

895: SALAD: Self-Supervised Aggregation Learning for Anomaly Detection on X-Rays

zoom 4: CAI - Video Image Analysis A

1072: Toward Rapid Stroke Diagnosis with Multimodal Deep Learning

1117: Learning and Reasoning with the Graph Structure Representation in Robotic Surgery

1150: Vision-based Estimation of MDS-UPDRS Gait Scores for Assessing Parkinson's Disease Motor Severity

2847: Searching for Efficient Architecture for Instrument Segmentation in Robotic Surgery

548: ISINet: An Instance-Based Approach for Surgical Instrument Segmentation

823: Reliable Liver Fibrosis Assessment from Ultrasound using Global Hetero-Image Fusion and View-Specific Parameterization

zoom 5: Image Reconstruction A

1326: Compressive MR Fingerprinting reconstruction with Neural Proximal Gradient iterations

1588: Active MR k-space Sampling with Reinforcement Learning

1820: Fast Correction of Eddy-Current and Susceptibility-Induced Distortions Using Rotation-Invariant Contrasts

2188: Joint reconstruction and bias field correction for undersampled MR imaging

2189: Joint Total Variation ESTATICS for Robust Multi-Parameter Mapping

2693: End-to-End Variational Networks for Accelerated MRI Reconstruction

403: Improving Amide Proton Transfer-weighted MRI Reconstruction using T2-weighted Images

850: Collimatorless Scintigraphy for Imaging Extremely Low Activity Targeted Alpha Therapy (TAT) with Weighted Robust Least Square (WRLS)

5th Oct : 15:30 UTC

zoom 1: Biological/Optical/Microscopic Imaging B

1746: Microtubule Tracking in Electron Microscopy Volumes

239: MitoEM Dataset: Large-scale 3D Mitochondria Instance Segmentation from EM Images

2750: Leveraging Tools from Autonomous Navigation for Rapid, Robust Neuron Connectivity

2963: Statistical Atlas of C.elegans Neurons

2964: Probabilistic Segmentation and Labeling of C. elegans Neurons

547: Learning Guided Electron Microscopy with Active Acquisition

797: Neuronal Subcompartment Classification and Merge Error Correction

zoom 2: Brain Development and Atlases B

1142: From Connectomic to Task-evoked Fingerprints: Individualized Prediction of Task Contrasts from Resting-state Functional Connectivity

1728: Disentangled Intensive Triplet Autoencoder for Infant Functional Connectome Fingerprinting

1948: COVLET: Covariance-based Wavelet-like Transform for Statistical Analysis of Brain Characteristics in Children

274: Persistent Feature Analysis of Multimodal Brain Networks Using Generalized Fused Lasso for EMCI Identification

630: Recovering Brain Structural Connectivity from Functional Connectivity via Multi-GCN based Generative Adversarial Network

zoom 3: Semi-supervised Learning C

1527: Uncertainty estimates as data selection criteria to boost omni-supervised learning

1898: Extreme Consistency: Overcoming Annotation Scarcity and Domain Shifts

201: Deep Q-Network-Driven Catheter Segmentation in 3D US by Hybrid Constrained Semi-Supervised Learning and Dual-UNet

2272: Spatio-temporal Consistency and Negative LabelTransfer for 3D freehand US Segmentation

386: Domain Adaptive Relational Reasoning for 3D Multi-Organ Segmentation

426: Realistic Adversarial Data Augmentation for MR Image Segmentation

602: Learning to Segment Anatomical Structures Accurately from One Exemplar

zoom 4: CAI - Instrumentation and Surgical Phase Detection

2067: Surgical Video Motion Magnification with Suppression of Instrument Artefacts

2319: Recognition of Instrument-Tissue Interactions in Endoscopic Videos via Action Triplets

2415: AutoSNAP: Automatically Learning Neural Architectures for Instrument Pose Estimation

2609: Automatic Operating Room Surgical Activity Recognition for Robot-Assisted Surgery

605: TeCNO: Surgical Phase Recognition with Multi-Stage Temporal Convolutional Networks

zoom 5: Image Reconstruction B

1381: T2 Mapping from Super-Resolution-Reconstructed Clinical Fast Spin Echo Magnetic Resonance Acquisitions

1891: Learned Proximal Networks for Quantitative Susceptibility Mapping

275: 3d-SMRnet: Achieving a new quality of MPI system matrix recovery by deep learning

2789: Learning A Gradient Guidance for Spatially Isotropic MRI Super-Resolution Reconstruction

344: MRI Image Reconstruction via Learning Optimization Using Neural ODEs

396: An evolutionary framework for microstructure-sensitive generalized diffusion gradient waveforms

507: Lesion Mask-based Simultaneous Synthesis of Anatomic and Molecular MR Images using a GAN

5th Oct : 16:00 UTC

zoom 3: Machine Learning Applications A

1157: Joint Modeling of Chest Radiographs and Radiology Reports for Pulmonary Edema Assessment

1436: Domain-specific loss design for unsupervised physical training: A new approach to modeling medical ML solutions

1695: Multiatlas Calibration of Biophysical Brain Tumor Growth Models with Mass Effect

2018: Chest X-ray Report Generation through Fine-Grained Label Learning

2729: Peri-Diagnostic Decision Support Through Cost-Efficient Feature Acquisition at Test-Time

2870: A Deep Bayesian Video Analysis Framework: Towards a More Robust Estimation of Ejection Fraction

zoom 4: CAI Applications A

1523: Inertial Measurements for Motion Compensation in Weight-bearing Cone-beam CT of the Knee

1582: Feasibility check: can audio be a simple alternative to force-based feedback for needle guidance?

1725: A Graph-Based Method for Optimal Active Electrode Selection in Cochlear Implants

2666: Improved resection margins in surgical oncology using intraoperative mass spectrometry

2710: Self-Supervsied Domain Adaptation for Patient-Specific, Real-Time Tissue Tracking

2882: An Interactive Mixed Reality Platform for Bedside Surgical Procedures

493: Reconstructing Sinus Anatomy from Endoscopic Video -- Towards a Radiation-free Approach for Quantitative Longitudinal Assessment

6th Oct : 10:30 UTC

zoom 1: Colonoscopy

1031: PraNet: Parallel Reverse Attention Network for Polyp Segmentation

1169: Few-Shot Anomaly Detection for Polyp Frames from Colonoscopy

2073: PolypSeg: an Efficient Context-aware Network for Polyp Segmentation from Colonoscopy Videos

2093: Endoscopic polyp segmentation using a hybrid 2D/3D CNN

881: Adaptive Context Selection for Polyp Segmentation

zoom 2: Machine Learning Applications B

1021: BUNET: Blind Medical Image Segmentation Based on Secure UNET

1239: Temporal-consistent Segmentation of Echocardiography with Co-learning from Appearance and Shape

1367: Decision Support for Intoxication Prediction Using Graph Convolutional Networks

2128: Latent-Graph Learning for Disease Prediction

411: Distractor-Aware Neuron Intrinsic Learning for Generic 2D Medical Image Classifications

537: Large-scale inference of liver fat with neural networks on UK Biobank body MRI

zoom 3: Advances in Machine Learning Theory A

1064: Have you forgotten? A method to assess ifmachine learning models have forgotten data

1218: Learning and Exploiting Interclass Visual Correlations for Medical Image Classification

13: Dual-level Selective Transfer Learning for Intrahepatic Cholangiocarcinoma Segmentation in Non-enhanced Abdominal CT

153: BiO-Net: Learning Recurrent Bi-directional Connections for Encoder-Decoder Architecture

2373: Feature Preserving Smoothing Provides Simple and Effective Data Augmentation for Medical Image Segmentation

2908: Deep kNN for Medical Image Classification

643: Constrain Latent Space for Schizophrenia Classification via Dual Space Mapping Net

zoom 4: CAI Applications B

1309: Malocclusion Treatment Planning via PointNet based Spatial Transformation Network

1384: Simulation of Brain Resection for Cavity Segmentation Using Self-Supervised and Semi-Supervised Learning

2047: Local Contractive Registration for Quantification of Tissue Shrinkage in Assessment of Microwave Ablation

2191: Reinforcement Learning of Musculoskeletal Control from Functional Simulations

355: Ear Cartilage Inference for Reconstructive Surgery with Convolutional Mesh Autoencoders

508: Robust Multi-modal 3D Patient Body Modeling

639: A New Electromagnetic-Video Endoscope Tracking Method via Anatomical Constraints and Historically Observed Differential Evolution

zoom 5: Segmentation - Cardiac

1055: Joint Left Atrial Segmentation and Scar Quantification Based on a DNN with Spatial Encoding and Shape Attention

2194: XCAT-GAN for Synthesizing 3D Consistent Labeled Cardiac MR Images on Anatomically Variable XCAT Phantoms

543: Efficient and Phase-aware Video Super-resolution for Cardiac MRI

611: ImageCHD: A 3D Computed Tomography Image Dataset for Classification of Congenital Heart Disease

620: Deep Generative Model-based Quality Control for Cardiac MRI Segmentation

910: DeU-Net: Deformable U-Net for 3D Cardiac MRI Video Segmentation

993: Learning Directional Feature Maps for Cardiac MRI Segmentation

zoom 6: Segmentation - Oncological A

1034: Multimodal Priors Guided Segmentation of Liver Lesions in MRI Using Mutual Information Based Graph Co-Attention Networks

1093: Mt-UcGAN: Multi-task uncertainty-constrained GAN for joint segmentation, quantification and uncertainty estimation of renal tumors on CT

1262: Weakly Supervised Deep Learning for Breast Cancer Segmentation with Coarse Annotations

1409: Multi-phase and Multi-level Selective Feature Fusion for Automated Pancreas Segmentation from CT Images

285: Bounding Maps for Universal Lesion Detection

6th Oct : 11:00 UTC

zoom 1: Biological/Optical/Microscopic Imaging C

1415: Background and illumination correction for time-lapse microscopy data with correlated foreground

1825: Joint Spatial-Wavelet Dual-Stream Network for Super-Resolution

1918: Towards Neuron Segmentation from Macaque Brain Images: A Weakly Supervised Approach

437: Segmenting Continuous but Sparsely-Labeled Structures in Super-Resolution Microscopy Using Perceptual Grouping

690: DISCo: Deep learning, Instance Segmentation, and Correlations for cell segmentation in calcium imaging

918: Isotropic Reconstruction of 3D EM Images with Unsupervised Degradation Learning

zoom 2: Domain Adaptation A

1014: Automatic and interpretable model for periodontitis diagnosis in panoramic radiographs

1216: Residual-CycleGAN based Camera Adaptation for Robust Diabetic Retinopathy Screening

229: Improve Unseen Domain Generalization via Enhanced Local Color Transformation and Augmentation

863: Transport-based Joint Distribution Alignment for Multi-site Autism Spectrum Disorder Diagnosis using Resting-state fMRI

zoom 3: Student/Teacher Networks

1013: Leveraging Undiagnosed Data for Glaucoma Classification with Teacher-Student Learning

1015: Difficulty-aware Glaucoma Classification with Multi-Rater Consensus Modeling

1780: Intra-operative Forecasting of Growth Modulation Spine Surgery Outcomes with Spatio-Temporal Dynamic Networks

2324: Self-supervision on Unlabelled OR Data for Multi-person 2D/3D Human Pose Estimation

2614: Knowledge distillation from multi-modal to mono-modal segmentation networks

867: Characterizing Label Errors: Confident Learning for Noisy-labeled Image Segmentation

zoom 4: Shape Models and Landmark Detection A

1099: Self-Supervised Discovery of Anatomical Shape Landmarks

1402: Shape Mask Generator: Learning to Refine Shape Priors for Segmenting Overlapping Cervical Cytoplasms

1625: Prostate motion modelling using biomechanically-trained deep neural networks on unstructured nodes

1771: Deep Learning Assisted Automatic Intra-operative 3D Aortic Deformation Reconstruction

183: Graph Reasoning and Shape Constraints for Cardiac Segmentation in Congenital Heart Defect

3041: Landmarks Detection with Anatomical Constraints for Total Hip Arthroplasty Preoperative Measurements

783: Nonlinear Regression on Manifolds for Shape Analysis using Intrinsic Bézier Splines

zoom 5: Angiography and Vessel Analysis A

1313: Automatic CAD-RADS Scoring from CCTA Scans using Deep Learning

1610: Higher-Order Flux with Spherical Harmonics Transform for Vascular Analysis

1872: Cerebrovascular Segmentation in MRA via Reverse Edge Attention Network

497: Lightweight Double Attention-fused Networks for Intraoperative Stent Segmentation

603: TopNet: Topology Preserving Metric Learning for Vessel Tree Reconstruction and Labelling

604: Learning Hybrid Representations for Automatic 3D Vessel Centerline Extraction

877: Branch-aware Double DQN for Centerline Extraction in Coronary CT Angiography

zoom 6: Prediction and Diagnosis A

1038: Prediction of Pathological Complete Response to Neoadjuvant Chemotherapy in Breast Cancer Using Deep Learning with Integrative Imaging, Molecular and Demographic Data

1354: Geodesically Smoothed Tensor Features for Pulmonary Hypertension Prognosis using the Heart and Surrounding Tissues

1608: Ovarian Cancer Prediction in Proteomic Data Using Stacked Asymmetric Convolution

243: MIA-Prognosis: A Deep Learning Framework to Predict Therapy Response

657: M2Net: Multi-modal Multi-channel Network for Overall Survival Time Prediction of Brain Tumor Patients

782: Automatic Detection of Free Intra-Abdominal Air in Computed Tomography

6th Oct : 11:30 UTC

zoom 1: Biological/Optical/Microscopic Imaging D

1776: Attention based multiple instance learning for classification of blood cell disorders

2453: A generative modeling approach for interpreting population-level variability in brain structure

2802: Processing-Aware Real-Time Rendering for Optimized Tissue Visualization in Intraoperative 4D OCT

307: 3D Reconstruction and Segmentation of Dissection Photographs for MRI-free Neuropathology

356: DistNet: Deep Tracking by displacement regression: application to bacteria growing in the Mother Machine

814: A weakly supervised deep learning approach for detecting malaria and sickle cell anemia in blood films

874: Imaging Scattering Characteristics of Tissue in Transmitted Microscopy

zoom 2: Domain Adaptation B

1980: JBFnet - Low Dose CT Denoising by Trainable Joint Bilateral Filtering

2243: MI^2GAN: Generative Adversarial Network for Medical Image Domain Adaptation using Mutual Information Constraint

72: Shape-aware Meta-learning for Generalizing Prostate MRI Segmentation to Unseen Domains

815: Automatic Plane Adjustment of Orthopedic Intraoperative Flat Panel Detector CT-Volumes

958: Unsupervised Graph Domain Adaptation for Neurodevelopmental Disorders Diagnosis

zoom 3: Learning Methodologies

1236: MS-NAS: Multi-Scale Neural Architecture Search for Medical Image Segmentation

1413: Comparing to Learn: Surpassing ImageNet Pretraining on Radiographs By Comparing Image Representations

175: Meta Corrupted Pixels Mining for Medical Image Segmentation

188: UXNet: Searching Multi-level Feature Aggregation for 3D Medical Image Segmentation

202: Difficulty-aware Meta-learning for Rare Disease Diagnosis

598: Few Is Enough: Task-Augmented Active Meta-Learning for Brain Cell Classification

921: Automatic Data Augmentation for 3D Medical Image Segmentation

zoom 4: Shape Models and Landmark Detection B

1090: Instantiation-Net: 3D Mesh Reconstruction from Single 2D Image for Right Ventricle

1132: Miss the point: Targeted adversarial attack on multiple landmark detection

1293: Automatic Tooth Segmentation and Dense Correspondence of 3D Dental Model

1412: Move over there: One-click deformation correction for image fusion during endovascular aortic repair

1452: Non-Rigid Volume to Surface Registration using a Data-Driven Biomechanical Model

1567: Deformation Aware Augmented Reality for Craniotomy using 3D/2D Non-rigid Registration of Cortical Vessels

2778: Skip-StyleGAN: Skip-connected Generative Adversarial Networks for Generating 3D Rendered Image of Hand Bone Complex

zoom 5: Segmentation - Retinal

1058: Retinal Image Segmentation with a Structure-Texture Demixing Network

1469: BEFD: Boundary Enhancement and Feature Denoising for Vessel Segmentation

2066: Boosting Connectivity in Retinal Vessel Segmentation via a Recursive Semantics-Guided Network

2072: RVSeg-Net: an Efficient Feature Pyramid Cascade Network for Retinal Vessel Segmentation

720: An Elastic Interaction Based-Loss Function for Medical Image Segmentation

zoom 6: Segmentation and CAD

103: Scale-Space Autoencoders for Unsupervised Anomaly Segmentation in Brain MRI

2386: Deep Attentive Panoptic Model for Prostate Cancer Detection Using Biparametric MRI Scans

240: AlignShift: Bridging the Gap of Imaging Thickness in 3D Anisotropic Volumes

516: One Click Lesion RECIST Measurement and Segmentation on CT Scans

62: Revisiting 3D Context Modeling with Supervised Pre-training for Universal Lesion Detection in CT Slices

655: Automated Detection of Cortical Lesions in Multiple Sclerosis Patients with 7T MRI

6th Oct : 15:00 UTC

zoom 2: Neuroimaging B

1813: Patch-based abnormality maps for improved deep learning-based classification of Huntington's disease

1902: A Deep Spatial Context Guided Framework for Infant Brain Subcortical Segmentation

2299: Modelling the Distribution of 3D Brain MRI using a 2D Slice VAE

434: Spatial Similarity-Aware Learning and Fused Deep Polynomial Network for Detection of Obsessive-Compulsive Disorder

525: Deep Representation Learning For Multimodal Brain Networks

907: Pooling Regularized Graph Neural Network for fMRI Biomarker Analysis

zoom 3: Advances in Machine Learning Theory B

1290: Learning joint shape and appearance representations with metamorphic auto-encoders

408: Learning Semantics-enriched Representation via Self-discovery, Self-classification, and Self-restoration

596: DECAPS: Detail-oriented Capsule Networks

700: Federated Simulation for Medical Imaging

726: Continual Learning of New Diseases with Dual Distillation and Ensemble Strategy

928: Learning to Segment When Experts Disagree

976: Deep Disentangled Hashing with Momentum Triplets for Neuroimage Search

zoom 4: Segmentation - Oncological B

1067: Asymmetrical Multi-Task Attention U-Net for the Segmentation of Prostate Bed in CT Image

1171: Learning High-Resolution and Efficient Non-local Features for Brain Glioma Segmentation in MR Images

1430: Robust Pancreatic Ductal Adenocarcinoma Segmentation with Multi-Institutional Multi-Phase Partially-Annotated CT Scans

1544: Generation of Annotated Brain Tumor MRIs with Tumor-induced Tissue Deformations for Training and Assessment of Neural Networks

1575: E2Net: An Edge Enhanced Network for Accurate Liver and Tumor Segmentation on CT Scans

1600: Universal loss reweighting to balance lesion size inequality in 3D medical image segmentation

2409: Brain tumor segmentation with missing modalities via latent multi-source correlation representation

zoom 5: Ultrasound Imaging A

1111: Sensorless Freehand 3D Ultrasound Reconstruction via Deep Contextual Learning

1113: Ultra2Speech - A Deep Learning Framework for Formant Frequency Estimation and Tracking from Ultrasound Tongue Images

1302: Ultrasound Video Summarization using Deep Reinforcement Learning

1524: Predicting obstructive hydronephrosis based on ultrasound alone

2365: Semi-Supervised Training of Optical Flow Convolutional Neural Networks in Ultrasound Elastography

2402: Three-dimensional thyroid assessment from untracked 2D ultrasound clips

2815: Complex Cancer Detector: Complex Neural Networks on Non-stationary Time Series for Guiding Systematic Prostate Biopsy

6th Oct : 15:30 UTC

zoom 1: Cell Segmentation and Stain Normalization B

1166: Multi-Field of View Aggregation and Context Encoding for Single-Stage Nucleus Recognition

2518: Self-Supervised Nuclei Segmentation in Histopathological Images Using Attention

2844: FocusLiteNN: High Efficiency Focus Quality Assessment for Digital Pathology

599: StyPath: Style-Transfer Data Augmentation For Robust Histology Image Classification

835: Multimarginal Wasserstein Barycenter for Stain Normalization and Augmentation

997: Corruption-Robust Enhancement of Deep Neural Networks for Classification of Peripheral Blood Smear Images

zoom 1: Histopathology Image Analysis C

1657: Deep Interactive Learning: An Efficient Labeling Approach for Deep Learning-Based Osteosarcoma Treatment Response Assessment

1768: Modeling Histological Patterns for Differential Diagnosis of Atypical Breast Lesions

1822: Foveation for Segmentation of Mega-pixel Histology Images

1967: Multimodal Latent Semantic Alignment for Automated Prostate Tissue Classification and Retrieval

684: Graph Attention Multi-instance Learning for Accurate Colorectal Cancer Staging

zoom 2: Functional Brain Networks B

1846: Poincare embedding reveals edge-based functional networks of the brain

1939: The constrained network-based statistic: a new level of inference for neuroimaging

2005: Learning Personal Representations from fMRIby Predicting Neurofeedback Performance

228: A physics-informed geometric learning model for pathological tau spread in Alzheimer's disease

2711: A 3D Convolutional Encapsulated Long Short-Term Memory (3DConv-LSTM) Model for Denoising fMRI Data

801: A deep pattern recognition approach for inferring respiratory volume fluctuations from fMRI data

832: A Deep-Generative Hybrid Model to Integrate Multimodal and Dynamic Connectivity for Predicting Spectrum-Level Deficits in Autism

zoom 3: Interpretability

1517: Interpretability-guided Content-based Medical Image Retrieval

2184: Domain aware medical image classifier interpretation by counterfactual impact analysis

2673: Towards Emergent Language Symbolic Semantic Segmentation and Model Interpretability

346: Scientific Discovery by Generating Counterfactuals using Image Translation

476: Interpretable Deep Models for Cardiac Resynchronisation Therapy Response Prediction

626: Encoding Visual Attributes in Capsules for Explainable Medical Diagnoses

zoom 4: Detection, Localization and Segmentation

1188: Weakly supervised one-stage vision and language disease detection using large scale pneumonia and pneumothorax studies

232: DeScarGAN: Disease-Specific Anomaly Detection with Weak Supervision

2599: Diagnostic Assessment of Deep Learning Algorithms for Detection and Segmentation of Lesion in Mammographic images

327: KISEG: A Three-Stage Segmentation Framework for Multi-level Acceleration of Chest CT Scans from COVID-19 Patients

369: CircleNet: Anchor-free Glomerulus Detection with Circle Representation

88: Deep Volumetric Universal Lesion Detection using Light-Weight Pseudo 3D Convolution and Surface Point Regression

zoom 5: Prediction and Diagnosis B

1147: Feature-enhanced Graph Networks for Genetic Mutational Prediction Using Histopathological Images in Colon cancer

1815: Spatial-And-Context aware (SpACe) ''virtual biopsy'' radiogenomic maps to target tumor mutational status on structural MRI

213: DeepPrognosis: Preoperative Prediction of Pancreatic Cancer Survival and Surgical Margin via Dynamic Contrast-Enhanced CT Imaging

2643: CorrSigNet: Learning CORRelated Prostate Cancer SIGnatures from Radiology and Pathology Images for Improved Computer Aided Diagnosis

2773: Preoperative prediction of lymph node metastasis from clinical DCE MRI of the primary breast tumor using a 4D CNN

2954: Learning Differential Diagnosis of Skin Conditions with Co-occurrence Supervision using Graph Convolutional Networks

404: Holistic Analysis of Abdominal CT for Predicting the Grade of Dysplasia of Pancreatic Lesions

6th Oct : 16:00 UTC

zoom 2: Functional Brain Networks C

1596: Global Diffeomorphic Phase Alignment of Time-series from Resting-state fMRI Data

1784: Spatio-Temporal Graph Convolution for Resting-State fMRI Analysis

2558: A shared neural encoding model for the prediction of subject-specific fMRI response

488: Detecting Changes of Functional Connectivity by Dynamic Graph Embedding Learning

788: Discovering Functional Brain Networks with 3D Residual Autoencoder (ResAE)

794: Spatiotemporal Attention Autoencoder (STAAE) for ADHD Classification

zoom 3: Uncertainty

1758: Probabilistic 3D surface reconstruction from sparse MRI information

2605: Can you trust predictive uncertainty under real dataset shifts in digital pathology?

2738: Deep Generative Model for Synthetic-CT Generation with Uncertainty Predictions

519: Heterogeneity Measurement of Cardiac Tissues Leveraging Uncertainty Information from Image Segmentation

827: Efficient Shapley Explanation For Features Importance Estimation Under Uncertainty

868: Cartilage Segmentation in High-Resolution 3D Micro-CT Images via Uncertainty-Guided Self-Training with Very Sparse Annotation

zoom 4: Segmentation - General D

1680: INSIDE: Steering Spatial Attention with Non-Imaging Information in CNNs

1705: SiamParseNet: Joint Body Parsing and Label Propagation in Infant Movement Videos

1772: Orchestrating Medical Image Compression and Remote Segmentation Networks

559: CNN-GCN Aggregation Enabled Boundary Regression for Biomedical Image Segmentation

592: KiU-Net: Towards Accurate Segmentation of Biomedical Images using Over-complete Representations

693: LAMP: Large Deep Nets with Automated Model Parallelism for Image Segmentation

7th Oct : 10:30 UTC

zoom 1: Opthalmology A

1017: TR-GAN: Topology Ranking GAN with Triplet Loss for Retinal Artery/Vein Classification

1056: DeepGF: Glaucoma Forecast Using Sequential Fundus Images

2461: Single-Shot Retinal Image Enhancement Using Deep Image Prior

445: GREEN: a Graph REsidual rE-ranking Network for Grading Diabetic Retinopathy

646: Combining Fundus Images and Fluorescein Angiography for Artery/Vein Classification Using the Hierarchical Vessel Graph Network

988: Adaptive Dictionary Learning Based Multimodal Branch Retinal Vein Occlusion Fusion

zoom 2: Brain Development and Atlases C

1123: Species-Shared and -Specific Structural Connections Revealed by Dirty Multi-Task Regression

1440: Self-weighted Multi-Task Learning for Subjective Cognitive Decline Diagnosis

1951: Unified Brain Network with Functional and Structural Data

2177: Integrating Similarity Awareness and Adaptive Calibration in Graph Convolution Network to Predict Disease

2411: Infant Cognitive Scores Prediction With Multi-stream Attention-based Temporal Path Signature Features

zoom 3: Generative Adversarial Networks A

1593: Generating Dual-Energy Subtraction Soft-Tissue Images from Chest Radiographs via Bone Edge-Guided GAN

1826: GANDALF: Generative Adversarial Networks with Discriminator-Adaptive Loss Fine-tuning for Alzheimer's Disease Diagnosis from MRI

1892: Brain MR to PET Synthesis via Bidirectional Generative Adversarial Network

268: Cycle Structure and Illumination Constrained GAN for Medical Image Enhancement

2944: AGAN: An Anatomy Corrector Conditional Generative Adversarial Network

37: BR-GAN: Bilateral Residual Generating Adversarial Network for Mammogram Classification

zoom 4: CAI - Video Image Analysis B

1549: Spectral-Spatial Recurrent-Convolutional Networks for In-Vivo Hyperspectral Tumor Type Classification

204: Unsupervised Surgical Instrument Segmentation via Anchor Generation and Semantic Diffusion

2506: Synthetic and Real Inputs for Tool Segmentation in Robotic Surgery

2550: Perfusion Quantification from Endoscopic Videos: Learning to Read Tumour Signatures

870: Towards Accurate and Interpretable Surgical Skill Assessment: A Video-Based Method Incorporating Recognized Surgical Gestures and Skill Levels

912: Learning Motion Flows for Semi-supervised Instrument Segmentation from Robotic Surgical Video

zoom 5: Image Reconstruction C

1126: Learning MRI k-Space Subsampling Pattern using Progressive Weight Pruning

1248: Model-driven Deep Attention Network for Ultra-fast Compressive Sensing MRI Guided by Cross-contrast MR Image

206: Encoding Metal Mask Projection for Metal Artifact Reduction in Computed Tomography

2580: Simultaneous Estimation of X-ray Back-Scatter and Forward-Scatter using Multi-Task Learning

358: Acceleration of High-resolution 3D MR Fingerprinting via a Graph Convolutional Network

501: Deep Attentive Wasserstein Generative Adversarial Network for MRI Reconstruction with Recurrent Context-Awareness

zoom 6: Breast Imaging A

168: Deep Doubly Supervised Transfer Network for Diagnosis of Breast Cancer with Imbalanced Ultrasound Imaging Modalities

1851: A Second-order Subregion Pooling Network for Breast Ultrasound Lesion Segmentation

1959: Multi-Scale Gradational-Order Fusion Framework for Breast lesions Classification Using Ultrasound images

2370: Computer-aided Tumor Diagnosis in Automated Breast Ultrasound using 3D Detection Network

297: 2D X-ray mammography and 3D breast MRI registration

2994: Auto-weighting for Breast Cancer Classification in Multimodal Ultrasound

7th Oct : 11:00 UTC

zoom 1: Opthalmology B

1255: Anterior Segment Eye Lesion Segmentation with Advanced Fusion Strategies and Auxiliary Tasks

1508: Cost-Sensitive Regularization for Diabetic Retinopathy Grading from Eye Fundus Images

1839: Disentanglement Network for Unpsupervised Speckle Reduction of Optical Coherence Tomography Images

2015: Positive-Aware Lesion Detection Network with Cross-scale Feature Pyramid for OCT Images

2806: Retinal Layer Segmentation Reformulated as OCT Language Processing

413: Robust Layer Segmentation against Complex Retinal Abnormalities for en face OCTA Generation

zoom 2: Brain Development and Atlases D

135: Masked Multi-Task Network for Case-level Intracranial Hemorrhage Classification in Brain CT Volumes

2223: BDB-Net: Boundary-enhanced Dual Branch Network for Whole Brain Segmentation

382: Deep Graph Normalizer: A Geometric Deep Learning Approach for Estimating Connectional Brain Templates

421: Supervised Multi-topology Network Cross-diffusion for Population-Driven Brain Network Atlas Estimation

470: Partial Volume Segmentation of Brain MRI Scans of any Resolution and Contrast

zoom 3: Attention Models

1139: Learning Rich Attention for Pediatric Bone Age Assessment

1363: Weakly Supervised Organ Localization with Attention Maps Regularized by Local Area Reconstruction

1787: High-order Attention Networks for Medical Image Segmentation

1856: NAS-SCAM: Neural Architecture Search-based Spatial and Channel Joint Attention Module for Nuclei Semantic Segmentation and Classification

376: Collaborative Learning of Cross-channel Clinical Attention for Radiotherapy-related Esophageal Fistula Prediction from CT

446: Learning Bronchiole-Sensitive Airway Segmentation CNNs by Feature Recalibration and Attention Distillation

zoom 4: CAI - Video Image Analysis C

1242: Two-Stream Deep Feature Modelling for Automated Video Endoscopy Data Analysis

1396: Rethinking Anticipation Tasks: Uncertainty-aware Anticipation of Sparse Surgical Instrument Usage for Context-aware Assistance

2347: Deep Placental Vessel Segmentation for Fetoscopic Mosaicking

2445: Deep Multi-View Stereo for Dense 3D Reconstruction from Monocular Endoscopic Video

2549: Endo-Sim2Real: Consistency learning-based domain adaptation for instrument segmentation

577: Asynchronous in Parallel Detection and Tracking (AIPDT): Real-time Robust Polyp Detection

719: OfGAN: Realistic Rendition of Synthetic Colonoscopy Videos

zoom 5: MSK Applications A

1080: Segmentation of Paraspinal Muscles at Varied Lumbar Spinal Levels by Explicit Saliency-Aware Learning

1176: Manifold Ordinal-Mixup for Ordered Classes inTW3-based Bone Age Assessment

1514: Contour-based Bone Axis Detection for X-Ray Guided Surgery on the Knee

21: Towards Robust Bone Age Assessment: Rethinking Label Noise and Ambiguity

253: Improve bone age assessment by learning from anatomical local regions

784: An Analysis by Synthesis Method that Allows Accurate Spatial Modeling of Thickness of Cortical Bone from Clinical QCT

zoom 6: Ultrasound Imaging B

1847: Directing Ultrasound Probe Placement for Image Guided Prostate Radiotherapy

2309: Searching Collaborative Agents for Multi-plane Localization in 3D Ultrasound

2357: Contrastive Rendering for Ultrasound Image Segmentation

2405: An Unsupervised Approach to Ultrasound Elastography with End-to-end Strain Regularisation

2827: Automatic Probe Movement Guidance for Freehand Obstetric Ultrasound

854: Self-supervised Contrastive Video-Speech Representation Learning for Ultrasound

7th Oct : 11:30 UTC

zoom 1: Opthalmology C

1195: A Macro-Micro Weakly-supervised Framework for AS-OCT Tissue Segmentation

1203: Macular Hole and Cystoid Macular Edema Joint Segmentation by Two-Stage Network and Entropy Minimization

2021: Retinal Nerve Fiber Layer Defect Detection With Position Guidance

266: Reconstruction and Quantification of 3D Iris Surface for Angle-Closure Glaucoma Detection in Anterior Segment OCT

648: Open-Appositional-Synechial Anterior Chamber Angle Classification in AS-OCT Sequences

zoom 2: Brain Development and Atlases E

1124: Optimizing Visual Cortex Parameterization with Error-Tolerant Teichmüller Map in Retinotopic Mapping

150: Brain Age Estimation From MRI Using a Two-Stage Cascade Network with a Ranking Loss

1964: Multi-Scale Enhanced Graph Convolutional Network for Early Mild Cognitive Impairment Detection

2332: Construction of Spatiotemporal Infant Cortical Surface Functional Templates

299: Context-Aware Refinement Network Incorporating Structural Connectivity Prior for Brain Midline Delineation

zoom 3: Active Learning and Reinforcement Learning

1353: Scribble2Label: Scribble-Supervised Cell Segmentation via Self-Generating Pseudo-Labels with Consistency

1542: Are fast labeling methods reliable? A case study of computer-aided expert annotations on microscopy slides

2062: Deep Reinforcement Active Learning for Medical Image Classification

2166: An Effective Data Refinement Approach for Upper Gastrointestinal Anatomy Recognition

2852: Synthetic Sample Selection via Reinforcement Learning

689: Attention, Suggestion and Annotation: A Deep Active Learning Framework for Biomedical Image Segmentation

zoom 4: CAI -Navigation and Visualization

1073: Can a hand-held navigation device reduce cognitive load? A user-centered approach evaluated by 18 surgeons.

1685: Symmetric Dilated Convolution for Surgical Gesture Recognition

1952: Deep Selection: A Fully Supervised Camera Selection Network for Surgery Recordings

2246: Interacting with Medical Volume Data in Projective Augmented Reality

2361: VR Simulation of Novel Hands-free Interaction Concepts for Surgical Robotic Visualization Systems

2679: Spatially-Aware Displays for Computer Assisted Interventions

zoom 5: MSK Applications B

1370: Keypoints Localization for Joint Vertebra Detection and Fracture Severity Quantification

1543: Grading Loss: A Fracture Grade-based Metric Loss for Vertebral Fracture Detection

2381: 3D Convolutional Sequence to Sequence Model for Vertebral Compression Fractures Identification in CT

747: Automatic Segmentation, Localization, and Identification of Vertebrae in 3D CT Images Using Cascaded Convolutional Neural Networks

845: Discriminative dictionary-embedded network for comprehensive vertebrae tumor diagnosis

846: Multi-vertebrae segmentation from arbitrary spine MR images under global view

930: A Convolutional Approach to Vertebrae Identification in Whole Spine MRI

zoom 6: Fetal Imaging

1223: Enhanced detection of fetal pose in 3D MRI by Deep Reinforcement Learning with physical structure priors on anatomy

1620: Automatic angle of progress measurement of intrapartum transperineal ultrasound image with deep learning

1765: Joint Image Quality Assessment and Brain Extraction of Fetal MRI using Deep Learning

675: Deep learning automatic fetal structures segmentation in MRI scans with few annotated datasets

759: Data-Driven Multi-Contrast Spectral Microstructure Imaging with InSpect

807: Semi-Supervised Learning for Fetal Brain MRI Quality Assessment with ROI consistency

7th Oct : 15:00 UTC

zoom 1: Breast Imaging B

119: MommiNet: Mammographic Multi-View Mass Identification Networks

1624: Multi-Site Evaluation of a Study-Level Classifier for Mammography using Deep Learning

2102: The case of missed cancers: Applying AI as a radiologist's safety net

2196: Decoupling Inherent Risk and Early Cancer Signs in Image-based Breast Cancer Risk Models

2444: Multi-task learning for detection and classification of cancer in screening mammography

zoom 2: Neuroimaging C

1257: Hierarchical Bayesian Regression for Multi-Site Normative Modeling of Neuroimaging Data

148: MAGIC: Multi-scale Heterogeneity Analysis and Clustering for Brain Diseases

1482: Image-level Harmonization of Multi-Site Data using Image-and-Spatial Transformer Networks

1532: A Disentangled Latent Space for Cross-Site MRI Harmonization

2677: Automated Acquisition Planning for Magnetic Resonance Spectroscopy in Brain Cancer

51: Spatial Component Analysis to Mitigate Multiple Testing in Voxel-Based Analysis

597: PIANO: Perfusion Imaging via Advection-diffusion

zoom 3: Generative Adversarial Networks B

102: SteGANomaly: Inhibiting CycleGAN Steganography for Unsupervised Anomaly Detection in Brain MRI

1791: Interpretation of Disease Evidence for Medical Images Using Adversarial Deformation Fields

2397: Spatial-Intensity Transform GANs for High Fidelity Medical Image-to-Image Translation

2398: Graded Image Generation Using Stratified CycleGAN

2905: Prediction of Plantar Shear Stress Distribution by Conditional GAN with Attention Mechanism

340: Flow-based Deformation Guidance for Unpaired Multi-Contrast MRI Image-to-Image Translation

zoom 4: Image Registration C

108: Are Registration Uncertainty and Error Monotonically Associated?

1103: Biomechanics-informed Neural Networks for Myocardial Motion Tracking in MRI

1194: Fluid registration between lung CT and stationary chest tomosynthesis images

1756: Anatomical Data Augmentation via Fluid-based Image Registration

1843: Generliazing Spatial Transformers to Projective Geometry with Applications to 2D/3D Registration

758: MR-to-US registration using multiclass segmentation of hepatic vasculature with a reduced 3D U-Net

800: Detecting Pancreatic Ductal Adenocarcinoma in Multi-phase CT Scans via Alignment Ensemble

zoom 5: Angiography and Vessel Analysis B

1300: Time matters: Handling spatio-temporal perfusion information for automated TICI scoring

1433: ID-Fit: Intra-saccular Device adjustment for personalized cerebral aneurysm treatment

1439: JointVesselNet: Joint Volume-Projection Convolutional Embedding Networks for 3D Cerebrovascular Segmentation

2048: Classification of Retinal Vessels into Artery-Vein in OCT Angiography Guided by Fundus Images

2367: Vascular surface segmentation for intracranial aneurysm isolation and quantification

453: Automated Intracranial Artery Labeling using a Graph Neural Network and Hierarchical Refinement

7th Oct : 15:30 UTC

zoom 1: MSK Applications C

1365: Inferring the 3D Standing Spine Posture from 2D Radiographs

1691: Generative Modelling of 3D in-silico Spongiosa with Controllable Micro-Structural Parameters

1692: GAN-based Realistic Bone Ultrasound Image and Label Synthesis for Improved Segmentation

2469: Robust Bone Shadow Segmentation from 2D Ultrasound Through Task Decomposition

551: SIMBA: Specific Identity Markers for Bone Age Assessment

956: Doctor Imitator: A Graph-based Bone Age Assessment Framework Using Hand Radiographs

zoom 2: DWI and Tractography B

1974: Hierarchical geodesic modeling on the diffusion orientation distribution function for longitudinal DW-MRI analysis

2104: TRAKO: Efficient Transmission of Tractography Data for Visualization

2198: Spatial Semantic-Preserving Latent Space Learning for Accelerated DWI Diagnostic Report Generation

2391: Trajectories from Distribution-valued Functional Curves: A Unified Wasserstein Framework

2555: Characterizing Intra-Soma Diffusion with Spherical Mean Spectrum Imaging

683: Unsupervised Deep Learning for Susceptibility Distortion Correction in Connectome Imaging

zoom 3: Cross-Domain Methods and Reconstruction A

1260: Dynamic memory to alleviate catastrophic forgetting in continuous learning settings

1268: Unlearning Scanner Bias for MRI Harmonisation

1842: Cross-Domain Image Translation by Shared Latent Gaussian Mixture Model

842: Unified cross-modality feature disentangler for unsupervised multi-domain MRI abdomen organs segmentation

zoom 4: Shape Models and Landmark Detection C

1097: A kernelized multi-level localization method for flexible shape modeling with few training data

1479: Unsupervised Learning and Statistical Shape Modeling of the Morphometry and Hemodynamics of Coarctation of the Aorta

1586: Convolutional Bayesian Models for Anatomical Landmarking on Multi-Dimensional Shapes

1935: SAUNet: Shape Attentive U-Net for Interpretable Medical Image Segmentation

2401: Multi-Task Dynamic Transformer Network for Concurrent Bone Segmentation and Large-Scale Landmark Localization with Dental CBCT

2417: Automatic Localization of Landmarks in Craniomaxillofacial CBCT Images using a Local Attention-based Graph Convolution Network

552: Dynamic multi-object Gaussian process models

zoom 5: Heart and Lung

1299: A Bottom-up Approach for Real-time Mitral Valve Annulus Modeling on 3D Echo Images

1683: A Semi-supervised Joint Network for Simultaneous Left Ventricular Motion Tracking and Segmentation in 4D Echocardiography

1747: Joint data imputation and mechanistic modelling for simulating heart-brain interactions in incomplete datasets

207: Accelerated 4D Respiratory Motion-resolved Cardiac MRI with a Model-based Variational Network

2300: Learning Geometry-Dependent and Physics-Based Inverse Image Reconstruction

406: Motion Pyramid Networks for Accurate and Efficient Cardiac Motion Estimation

702: ICA-UNet: ICA Inspired Statistical UNet for Real-time 3D Cardiac Cine MRI Segmentation

zoom 3: Cross-Domain Methods and Reconstruction B

1621: Self-supervised Skull Reconstruction in Brain CT Images with Decompressive Craniectomy

2501: X2Teeth: 3D Teeth Reconstruction from a Single Panoramic Radiograph

2756: Domain Adaptation for Ultrasound Beamforming

2795: CDF-Net: Cross-Domain Fusion Network for accelerated MRI reconstruction