2020 CVPR & MICCAI Seminar

Week	Paper Title	Reporter
2020/3/26		
	Multi-scale GANs for Memory-efficient Generation of High Resolution Medical Images Stereo-Correlation and Noise-Distribution Aware ResVoxGAN for Dense Slices Reconstruction and Noise Reduction in Thick Low-Dose CT	Luyue Shi
	RVOS: End-to-End Recurrent Network for Video Object Segmentation; Annotation-Free Cardiac Vessel Segmentation via Knowledge Transfer from Retinal Images	Yicheng Jiang
2020/4/2	Automated detection and classification of thyroid nodules in ultrasound images using clinical-knowledge-guided convolutional neural networks Shape and margin-aware lung nodule classification in low-dose CT images via soft activation mapping	Wenting Jiang
	3DFPN-HS2: 3D Feature Pyramid Network Based High Sensitivity and Specificity Pulmonary Nodule Detection	Haoyu Chen
2020/4/9	Accurate Weakly-Supervised Deep Lesion Segmentation Using Large-Scale Clinical Annotations: Slice-Propagated 3D Mask Generation from 2D RECIST Models Genesis: Generic Autodidactic Models for 3D Medical Image Analysis	Haichao Zhang
	nnU-Net: Self-adapting Framework for U-Net-Based Medical Image Segmentation	Liangdong Qiu
2020/4/16	NoduleNet: Decoupled False Positive Reduction for Pulmonary Nodule Detection and Segmentation	Luyue Shi
	Annotation-Free Cardiac Vessel Segmentation via Knowledge Transfer from Retinal Images	Yicheng Jiang

2020/4/23	Integrate Domain Knowledge in Training CNN for Ultrasonography Breast Cancer Diagnosis	Jiali Liu
	S4ND: Single-Shot Single-Scale Lung Nodule Detection	Haoyu Chen
2020/4/30	Holiday 5-1	
2020/5/7	MICCAI2018: MULTISCALE NETWORK FOLLOWED NETWORK MODEL FOR RETINAL VESSEL SEGMENTATION MICCAI2019:VESSEL-NET: RETINAL VESSEL SEGMENTATION UNDER MULTI-PATH SUPERVISION MICCAI2019: CS-NET: CHANNEL AND SPATIAL ATTENTION NETWORK FOR CURVILINEAR STRUCTURE SEGMENTATION	Wenting Jiang
	weakly supervised segmentation	Haichao Zhang
2020/5/14	（MICCAI 2019）Volumetric Attention for 3D Medical Image Segmentation and Detection （MICCAI 2019）Models Genesis: Generic Autodidactic Models for 3D Medical Image Analysis (CVPR 2020 workshop) Feedback U-net for Cell Image Segmentation	Liangdong Qiu
	Huang, Yunzhi, et al. "Two-stage CNNs for computerized BI-RADS categorization in breast ultrasound images." Biomedical engineering online 18.1 (2019): 8. Rodríguez-Cristerna, Arturo, Wilfrido Gómez-Flores, and Wagner Coelho de Albuquerque Pereira. "A computer-aided diagnosis system for breast ultrasound based on weighted BI-RADS classes." Computer methods and programs in biomedicine 153 (2018): 33-40. Huang, Qinghua, Fan Zhang, and Xuelong Li. "Few-shot decision tree for diagnosis of ultrasound breast tumor using BI-RADS features." Multimedia Tools and Applications 77.22 (2018): 29905-29918. Chang, Yi-Wei, et al. "A Novel Computer-Aided-Diagnosis System for Breast Ultrasound Images Based on BI-RADS Categories." Applied Sciences 10.5 (2020): 1830	Jiali Liu
2020/5/21	Spatial-Frequency Non-local Convolutional LSTM Network for pRCC Classification Normal Appearance Autoencoder for Lung Cancer Detection and	Luyue Shi

	Segmentation MVP-Net: Multi-view FPN with Position-Aware Attention for Deep Universal Lesion Detection	
	(ISBI 2019) An End-to-End Framework for Integrated Pulmonary Nodule Detection and False Positive Reduction (MICCAI 2017) Automated Pulmonary Nodule Detection via 3D ConvNets with Online Sample Filtering and Hybrid-Loss Residual Learning (MICCAI 2017) Accurate Pulmonary Nodule Detection in Computed Tomography Images Using Deep Convolutional Neural Networks	Haoyu Chen
2020/5/28	Semi-supervised Breast Lesion Detection In Ultrasound Video Based On Temporal Coherence 和 Semi-supervised Segmentation of Lesion from Breast Ultrasound Images with Attentional Generative Adversarial Network	Yicheng Jiang
	2019 MICCAI：Dual Encoding U-Net for Retinal Vessel Segmentation 2019 MICCAI：A Deep Learning Design for Improving Topology Coherence in Blood Vessel Segmentation 2019 MICCAI：Boundary and Entropy-Driven Adversarial Learning for Fundus Image Segmentation 2020 CVPR：CascadePSP: Toward Class-Agnostic and Very High-Resolution Segmentation	Wenting Jiang
2020/6/4		
	One Network to Segment Them All: A General, Lightweight System for Accurate 3D Medical Image Segmentation （MICCAI 2019） Instance Segmentation from Volumetric Biomedical Images Without Voxel-Wise Labeling（MICCAI 2019）	Liangdong Qiu
2020/6/11	Interactive Segmentation CVPR2020: Iteratively-Refined Interactive 3D Medical Image Segmentation with Multi-Agent Reinforcement Learning CVPR2019: Interactive Image Segmentation via Backpropagating Refinement Scheme CVPR2020: f-BRS: Rethinking Backpropagating Refinement for Interactive Segmentation CVPR2020: Memory Aggregation Networks for Efficient Interactive Video Object Segmentation	Haichao Zhang
	Attentive CT Lesion Detection Using Deep Pyramid Inference with Multi-scale Booster Improving Deep Lesion Detection Using 3D Contextual and Spatial Attention Probabilistic Radiomics: Ambiguous Diagnosis with Controllable Shape Analysis	Luyue Shi

2020/6/18	A Two-Stage Multi-loss Super-Resolution Network for Arterial Spin Labeling Magnetic Resonance Imaging (MICCAI2019) GANReDL-Medical Image Enhancement Using a Generative Adversarial Network with Real-Order Derivative Induced Loss Functions (MICCAI2019) Reconstruction of Isotropic High-Resolution MR Image from Multiple Anisotropic Scans Using Sparse Fidelity Loss and Adversarial Regularization (MICCAI2019)	Haoyu Chen
	CIA-Net: Robust Nuclei Instance Segmentation with Contour-aware Information Aggregation (MICCAI 2020) Boundary-assisted Region Proposal Networks for Nucleus Segmentation Cell R-CNN V3: A Novel Panoptic Paradigm for Instance Segmentation in Biomedical Images	Chenming Zhu
2020/6/25	端午假期	
2020/7/2	Unsupervised Domain Adaptation via Disentangled Representations: Application to Cross-Modality Liver Segmentation Integrating cross-modality hallucinated MRI with CT to aid mediastinal lung tumor segmentation Task Driven Generative Modeling for Unsupervised Domain Adaptation: Application to X-ray Image Segmentation	Yicheng Jiang
2020/7/9	Deep Learning for Image Super-resolution: A Survey (IEEE Transactions on Pattern Analysis and Machine Intelligence) Structure-Preserving Super Resolution with Gradient Guidance (CVPR 2020) EDVR: Video Restoration with Enhanced Deformable Convolutional Networks (CVPRW 2019)	Haoyu Chen
	Point-Set Anchors for Object Detection, Instance Segmentation and Pose Estimation	Liangdong Qiu
2020/7/16		Wenting Jiang
		Luyue Shi
2020/7/23		Jiali Liu
		Yicheng Jiang

2020/7/30		Haoyu Chen
		Liangdong Qiu
2020/8/6		Wenting Jiang
		Luyue Shi
2020/8/13		Yicheng Jiang
		Haoyu Chen
2020/8/20		Liangdong Qiu
		Wenting Jiang
2020/8/27		Luyue Shi
		Yicheng Jiang
公开资料	https://github.com/cuhksz-gap-medical-vision/MICCAI-Journal-Club	