MICCAI Webinar Series:
Imaging AI based Management of COVID-19

Video Recordings:

• Preparational Webinar (May 9, 2020):

Dinggang Shen: "Integrating AI in Imaging, Quantification, and Identification of COVID-19"
- YouTube: https://youtu.be/Tn4j45PhxLs
- Bilibili: https://www.bilibili.com/video/BV1Be411W7CQ

Shuiwang Ji: "Deep Learning on Images and Graphs: Recent Frontiers and COVID-19 Use Cases"
- YouTube: https://youtu.be/jNXTF8_anOU
- Bilibili: https://www.bilibili.com/video/BV1QQ4y1N7X2

• Webinar Series (May 14-15, 2020):

- YouTube: https://www.youtube.com/watch?v=0JfzUApWd4g&list=PLUEd5fp_6439qkuvS7uDarWETx07yxXSV
- Bilibili: https://www.bilibili.com/video/BV1Ji4y147qW

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Sponsor:

Shanghai United Imaging Intelligence (UII)

Organizations:

MICCAI Society; Medical Image Computing Seminar (MICS), China

Schedule, Speakers and Talk Titles:

Preparatory Webinar (May 9, 8:00am-8:10am, EST time):

- Dinggang Shen: Integrating AI in Imaging, Quantification, and Identification of COVID-19
- Shuiwang Ji: Deep Learning on Images and Graphs: Recent Frontiers and COVID-19 Use Cases

May 14 (EST time)

Time	Topics	Speakers
8:00am-8:10am	Introduction	Dinggang Shen, Tianming Liu and Guoyan Zheng
8:10am-8:30am	The role of AI in COVID-19 Clinical Decisions	Shiyuan Liu Elected Chairman of Chinese Society of Radiology, China

8:30am-8:50am	Contactless Patient Positioning for CT Imaging (Based on his accepted paper in **IEEE TMI**)	Ziyan Wu Principal Expert Scientist of Vision and Robotics, United Imaging Intelligence, Cambridge, MA, USA
8:50am-9:10am	AI Augmentation of Radiologist Performance in Distinguishing COVID-19 from Pneumonia of Other Etiology on Chest CT (Based on his paper published in **Radiology**)	Harrison X. Bai Assistant professor, Department of Diagnostic Imaging, Rhode Island Hospital and Brown University, RI, USA
9:10am-9:30am	Deep Learning COVID-19 Features on CXR using Limited Training Data Sets (Based on his accepted paper in **IEEE TMI**)	Jong Chul Ye Professor, Korea Advanced Inst. of Science & Technology (KAIST), Republic of Korea
9:30am-9:50am	Developing the "Corona-Score" for Patient Monitoring using Deep Learning CT and Xray Image Analysis (based on **IEEE-ISBI Special session on COVID-19**, Deep Learning and Biomedical Imaging and https://arxiv.org/abs/2003.05037)	Hayit Greenspan Professor, Dept of Biomedical Engineering, Faculty of Engineering, Tel-Aviv University, Israel & RADLogics Inc.
9:50am-10:10am	Artificial intelligence-enabled rapid diagnosis of COVID-19 patients (Based on his accepted paper in **Nature Medicine**)	Yang Yang Assistant Professor, Diagnostic, Molecular and Interventional Radiology, Icahn School of Medicine at Mount Sinai, NY, USA
10:10am-10:30am	A Weakly-supervised Framework for COVID-19 Classification and Lesion Localization from Chest CT (Based on his paper revised for **IEEE TMI**)	Xinggang Wang Associate Professor, Huazhong Univ. of Science and Technology, Wuhan, China

May 15 (EST time)

Time	Topics	Speakers
8:00am-8:10am	Introduction	Dinggang Shen, Tianming Liu and Guoyan Zheng
8:10am-8:30am	AI-based Diagnosis, Quantitative Lesion Measurements and Prognosis of COVID19 Pneumonia using CT Images (Based on his accepted paper in **Cell**)	Kang Zhang Professor, Macau University of Science and Technology, Macau, China
8:30am-8:50am	COVID-19 Ultrasound Imaging (Based on his paper revised for **IEEE TMI**)	Libertario Demi Assistant Professor, Dept. of Information Engineering and Computer Science University of Trento, Italy; Ruud J.G. van Sloun Assistant Professor, Department of Electrical Engineering, Eindhoven University of Technology, Netherland

8:50am-9:10am	A Noise-robust Framework for Automatic Segmentation of COVID-19 Pneumonia Lesions from CT Images (Based on his paper revised for **IEEE TMI**)	Guotai Wang Associate Professor, University of Electronic Science and Technology of China, China
9:10am-9:30am	Diagnosis of Coronavirus Disease 2019 (COVID-19) with Structured Latent Multi-View Representation Learning (Based on his accepted paper in **IEEE TMI**)	Changqing Zhang Associate Professor, Tianjin University, China
9:30am-9:50am	AI-assisted Multi-stream Data Integration for Improved Diagnosis and Prognostication in COVID-19	Carola-Bibiane Schönlieb Professor, University of Cambridge, UK
9:50am-10:10am	Dual-sampling Attention Network for Diagnosis of COVID-19 from CAP (Based on his paper revised for **IEEE TMI**)	Qian Wang Associate Professor, Shanghai Jiao Tong University, China
10:10am-10:30am	Building Dutch Database of Imaging and Clinical Data of COVID Patients for Development and Objective Validation of AI Algorithms	Wiro Niessen Professor, Erasmus University Medical Center and Delft University of Technology, Netherland
10:30am-10:50am	The Synergistic Role of Advanced Medical Imaging and Computer Science: Empowering Medicine in the Global Fight Against COVID-19	James Gee Associate Professor, Department of Radiology, University of Pennsylvania, PA, USA; Eduardo Barbosa Assistant Professor, Department of Radiology, University of Pennsylvania, PA, USA
10:50am-11:00am	Comments on the Webinar series	James Duncan Professor, Yale University, USA