



1st Workshop on Resource-Efficient Medical Image Analysis (REMIA) MICCAI 2022, Singapore September 22, 2022

Programme

| TIME | PROGRAMME |
|-----------|---|
| 0800-0805 | REMIA Opening Address <i>Xinxing Xu, Institute of High Performance Computing, A*STAR, Singapore</i> |
| 0805-0935 | Oral Session |
| 0805-0820 | Self-supervised Antigen Detection AI (SANDI) <i>Hanyun Zhang, The Institute of Cancer Research, London, UK</i> |
| 0820-0835 | RadTex: Learning Efficient Radiograph Representations from Text Reports <i>Keegan Quigley, MIT Lincoln Laboratory, Lexington, MA, US</i> |
| 0835-0850 | An Efficient Defending Mechanism Against Image Attacking on Medical Image Segmentation Models <i>Le Dinh Linh, Institute of High Performance Computing, A*STAR, Singapore</i> |
| 0850-0905 | Leverage Supervised and Self-supervised Pretrain Models for Pathological Survival Analysis via a Simple and Low-cost Joint Representation Tuning <i>Quan Liu (Online), Vanderbilt University, Nashville, TN, US</i> |
| 0905-0920 | Masked Video Modeling with Correlation-aware Contrastive Learning for Breast Cancer Diagnosis in Ultrasound <i>Zehui Lin (Online), Shenzhen University, Shenzhen, Guangdong, P.R.China</i> |
| 0920-0935 | Facing Annotation Redundancy: OCT Layer Segmentation with Only 10 Annotated Pixels Per Layer <i>Yanyu Xu, Institute of High Performance Computing, A*STAR, Singapore</i> |
| 0935-1000 | Break |
| 1000-1100 | Keynote: Integration of First-Order Logic and Deep Learning <i>Sinno Jialin Pan, Nanyang Technological University, Singapore</i> |
| 1100-1110 | REMIA Award Session |
| 1110-1125 | Poster Paper Videos |
| | Multi-Task Semi-Supervised Learning for Vascular Network Segmentation and Renal Cell Carcinoma Classification <i>Rudan Xiao, Damien Ambrosetti, Xavier Descombes</i> |

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| | <p align="center">Single Domain Generalization via Spontaneous Amplitude Spectrum Diversification</p> <p align="center">Yuexiang Li, Nanjun He, Yawen Huang</p> |
| | <p align="center">Triple-View Feature Learning for Medical Image Segmentation</p> <p align="center">Ziyang Wang, Irina Voiculescu</p> |
| | <p align="center">Classification of 4D fMRI Images Using ML, Focusing on Computational and Memory Utilization Efficiency</p> <p align="center">Nazanin Beheshti, Lennart Johnsson</p> |
| | <p align="center">Pathological Image Contrastive Self-Supervised Learning</p> <p align="center">Wenkang Qin, Shan Jiang, Lin Luo</p> |
| | <p align="center">Investigation of Training Multiple Instance Learning Networks with Instance Sampling</p> <p align="center">Aliasghar Tarkhan, Trung Kien Nguyen, Noah Simon, Jian Dai</p> |
| | <p align="center">A Self-attentive Meta-learning Approach for Image-Based Few-Shot Disease Detection</p> <p align="center">Achraf Ouahab, Olfa Ben-Ahmed, Christine Fernandez-Maloigne</p> |

Conference Proceedings

<https://link.springer.com/book/10.1007/978-3-031-16876-5>

Venue

Physical: Virgo 4 Function Room, Resorts World Convention Centre, Singapore

Virtual: Zoom link will be available at the beginning of the session at

<https://miccai2022.pathable.eu/meetings/virtual/2hNizc5R5EXjtFA59> (replacing the countdown timer)

Workshop Chairs

Xinxing Xu, *IHPC, A*STAR, Singapore*

Xiaomeng Li, *HKUST, Hong Kong, P.R.China*

Dwarikanath Mahapatra, *Inception Institute of Artificial Intelligence, Abu Dhabi, UAE*

Li Cheng, *University of Alberta, Canada*

Caroline Petitjean, *LITIS, University of Rouen, France*

Huazhu Fu, *IHPC, A*STAR, Singapore*

Local Organisers

Rick Goh Siow Mong, *IHPC, A*STAR, Singapore*

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Instructions

1. For oral paper authors:
 - a. Please follow the presentation order in the programme above. Since some presentations may take less time than planned, we advise all presenting authors to be at the session and on Zoom throughout the whole oral session until the last presentation finishes.
 - b. If you are presenting in person, you will be presenting from the computer provided at the physical venue. Your submitted slides have been compiled with other slides into a single deck of slides, and you will present in front of the computer to both the in-person audience and online audience via Zoom.
 - c. If you are presenting on Zoom, please access the zoom link provided on the REMIA Pathable page when the session starts. You will be presenting on Zoom from your own computer, so please make sure your slides are ready on your computer, and we will not prepare the slides for you. When it is your turn to present, please share your slides on Zoom, and unmute yourself to start your presentation.
 - d. You will be given 10 min for your presentation and 5 min for Q&A.

2. For poster paper authors:
 - a. You don't need to present your work live at the workshop session.
 - b. Your 2-min video will be displayed to both in-person and online audiences at the end of the session (see programme above).
 - c. Your poster submitted to us in PDF format will be provided to event participants on our Pathable page. If you are attending REMIA in person with a physical poster, there will be a display board provided for you at the physical venue.

3. For audience:
 - a. If you are joining from Zoom, please keep yourself muted throughout the session and type your questions in the Chat box on the REMIA page on Pathable. Please start your question with the name of the author (see the programme above) you want to ask.
 - b. In-person audience will be able to ask questions during the Q&A session after each presentation.

4. Awards
 - a. There will be three awards: Best Paper, Best Paper Runner-up and Best Poster. These awards are voted by the workshop Chairs.
 - b. There will be cash prize for each Award:
 - i. Best Paper: 500 SGD
 - ii. Best Paper Runner-up: 300 SGD
 - iii. Best Poster: 300 SGD
 - c. Oral paper authors who are not able to present live either online or in person will be disqualified for the Best Paper and Best Paper Runner-up Awards.