

MICCAI SIG-xMedIA: A Special Interest Group on Explainable AI for Medical Image Analysis

Mission

The primary mission of SIG-xMedIA is to strengthen the exchange between research groups focused on explainable AI for real-world medical image analysis. By organizing satellite events at MICCAI conferences and biennial international workshops, SIG-xMedIA aims to:

- **Facilitate Collaboration:** Provide platforms for researchers to collaborate, share insights, and collectively drive advancements in XAI.
- **Curate Datasets:** Organize challenges, curating standard and public real-world medical image datasets for model development and evaluation.
- **Financial Support for Education:** Support tutorials, workshops, and educational initiatives to encourage diverse participation and foster best practices in the field.

Through these initiatives, SIG-xMedIA aspires to make significant contributions to the development of XAI, promoting openness, transparency, and community-driven progress in real-world medical image analysis.

Objectives

- **Establish a Specialized Community:** 1) Create a global community of researchers and clinicians dedicated to advancing XAI in medical image analysis; 2) Connect diverse perspectives and disciplines to collectively address challenges and opportunities in the field.
- **Promote XAI in MedIA:** 1) Facilitate collaboration among research groups to advance the development of explainable AI in real-world medical image analysis, which also sustains high consensus with clinicians. 2) Encourage consensus-building on principles guiding model design and evaluation.
- **Provide a Platform for Collaboration and Education:** 1) Create a platform for the exchange of ideas of explaining AI, methodologies of understanding decision-making process, and clinical practices of interpreting disease causes; 2) Foster collaboration through satellite events, workshops, and challenges, ensuring an open and reliable stage for evaluations and training; 3) Promote educational initiatives and opportunities in xMedIA to student communities by Student Board

2025 Activities

Online Seminar

The 1st SIG-xMedIA Online Seminar was held on 23 June 2025, from 10:00 AM to 12:00 AM (BST).



- **Keynote:** Explainable AI (XAI) in Medical Image Analysis. Speaker: **Prof. Mauricio Reyes.**

University of Bern,
ARTORG Center for Biomedical Engineering Research,
Medical Image Analysis Group

iMIMIC 2025 Workshop

MICCAI iMIMIC 2025 aims at introducing the challenges & opportunities related to the topic of interpretability of ML systems in the context of MICCAI.

- Workshop will take place on **27 September 2025, from 8:00 AM to 12:30 AM (DST)**



- **Keynote:** Explainable Artificial Intelligence: Recent Advances and Applications in Medical Domains. Speaker: **Prof. Jaesik Choi.**

Korea Advanced Institute of Science & Technology,
Republic of Korea

CARE 2025 challenge

Comprehensive Analysis & computing of REal-world medical images (CARE2025) aims to encourage the development of novel and effective methods that facilitate the translation of medical AI into real-world clinical practice.

- **Imaging data from over 2000 patients:** across three continents, capturing diverse acquisition protocols, clinical centers, and patient populations.
- **4 challenging tracks:** CARE-Cardiac, CARE-Myops, CARE-WHS, CARE-Liver.
- **183 teams** participated.
- **50 papers** submitted
- Event: **23 September 2025, from 13:30 to 18:00.**
- Award: Best Paper Award - \$500, Runner-Up Awards - \$300 × 2

Board members



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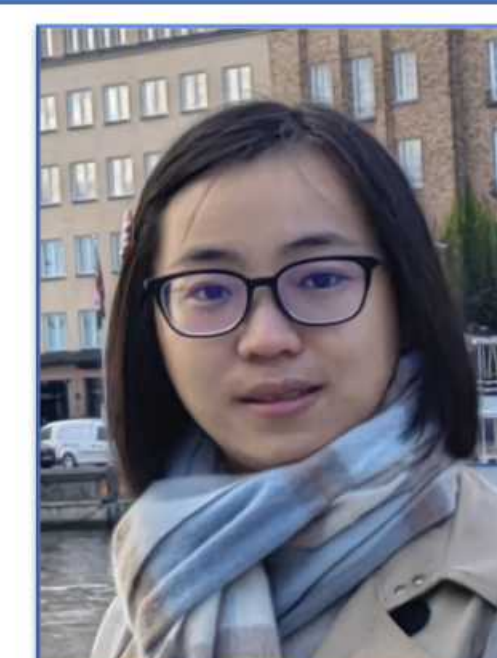
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