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Preface

This volume contains the Proceedings of the Eighth International Conference on Medical Imaging with Deep Learning – MIDL 2025. The conference was held from July 9 to 11, 2025, in Salt Lake City, Utah, USA, and was organized by co-chairs Tolga Tasdizen and Shireen Elhabian from the University of Utah and Ronald Summers from the National Institutes of Health (NIH) Clinical Center. The scientific program was organized by co-program chairs Ronald Summers, Chen Chen, Lisa Koch, and Yan Zhuang from NIH, the University of Sheffield, the University of Bern, and Icahn School of Medicine at Mount Sinai, respectively.

Similar to the previous editions of the conference, MIDL 2025 had two submission tracks: full papers and short papers. 195 valid full papers and 125 short papers underwent a transparent review process through the OpenReview platform. Both the full paper and short paper track review processes were single-blind. The papers and reviews are publicly available through OpenReview. The papers with a final decision of rejection were not listed in the OpenReview platform.

The full paper submissions underwent a rigorous single-blind review process that involved a team of 4 Program Chairs (PC), 43 Area Chairs (AC), and 220 reviewers. For each submission at least 3 reviews were ensured. After desk rejection by PC of incomplete submissions, each of the remaining 167 papers received at least three reviews as well as a meta-review by an AC. The authors were allowed to respond to the reviews during a rebuttal period and interact with the reviewers during a discussion period. The PC then discussed each paper over a virtual meeting with a specific focus on borderline cases to make the accept/reject decisions and to select oral presentations. The acceptance rate of the full paper track was 55.9%, with 32 oral presentations and 105 posters.

The short paper submissions underwent a more streamlined single-blind review process involving a team of the same 4 PCs and 34 reviewers, all of whom had also served as AC for the full paper track. Of the 118 submissions after desk rejections, 87 were accepted as posters.

We want to thank the Area Chairs and reviewers for their careful reviews and constructive feedback to the authors, which made it possible to create this robust technical program. We are grateful to our sponsors for their financial support of the conference. Finally, we would also like to thank the OpenReview team for their tech support throughout the entire process.

Only articles from the full paper track are included in these proceedings. The articles are presented in alphabetical order by first author surnames. The papers consist of a wide range of topics including image acquisition and reconstruction, image synthesis, segmentation and registration, abnormality detection, diagnosis and prognosis, representation learning, multimodal learning,

self/semi/weakly-supervised learning, clinical translation & domain adaptation, geometric deep learning, federated learning, explainable AI, uncertainty modelling, foundation models, and safe and trustworthy AI for medical imaging.

Salt Lake City, November 19, 2025

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