

Preface

In 2016, the 19th International Conference on Medical Image Computing and Computer-Assisted Intervention (MICCAI 2016) was held in Athens, Greece. It was organized by Harvard Medical School, The Hebrew University of Jerusalem, University College London, Sabancı University, Bogazici University, and Istanbul Technical University.

The meeting took place at the Intercontinental Athenaeum Hotel in Athens, Greece, during October 18–20. Satellite events associated with MICCAI 2016 were held on October 19 and October 21. MICCAI 2016 and its satellite events attracted world-leading scientists, engineers, and clinicians, who presented high-standard papers, aiming at uniting the fields of medical image processing, medical image formation, and medical robotics.

This year the triple anonymous review process was organized in several phases. In total, 756 submissions were received. The review process was handled by one primary and two secondary Program Committee members for each paper. It was initiated by the primary Program Committee member, who assigned exactly three expert reviewers, who were blinded to the authors of the paper. Based on these initial anonymous reviews, 82 papers were directly accepted and 189 papers were rejected. Next, the remaining papers went to the rebuttal phase, in which the authors had the chance to respond to the concerns raised by reviewers. The reviewers were then given a chance to revise their reviews based on the rebuttals. After this stage, 51 papers were accepted and 147 papers were rejected based on a consensus reached among reviewers. Finally, the reviews and associated rebuttals were subsequently discussed in person among the Program Committee members during the MICCAI 2016 Program Committee meeting that took place in London, UK, during May 28–29, 2016, with 28 Program Committee members out of 55, the four Program Chairs, and the General Chair. The process led to the acceptance of another 95 papers and the rejection of 192 papers. In total, 228 papers of the 756 submitted papers were accepted, which corresponds to an acceptance rate of 30.1%.

For these proceedings, the 228 papers are organized in 18 groups as follows. The first volume includes Brain Analysis (12), Brain Analysis: Connectivity (12), Brain Analysis: Cortical Morphology (6), Alzheimer Disease (10), Surgical Guidance and Tracking (15), Computer Aided Interventions (10), Ultrasound Image Analysis (5), and Cancer Image Analysis (7). The second volume includes Machine Learning and Feature Selection (12), Deep Learning in Medical Imaging (13), Applications of Machine Learning (14), Segmentation (33), and Cell Image Analysis (7). The third volume includes Registration and Deformation Estimation (16), Shape Modeling (11), Cardiac and Vascular Image Analysis (19), Image Reconstruction (10), and MRI Image Analysis (16).

We thank Dekon, who did an excellent job in the organization of the conference. We thank the MICCAI society for provision of support and insightful comments, the Program Committee for their diligent work in helping to prepare the technical program,

as well as the reviewers for their support during the review process. We also thank Andreas Maier for his support in editorial tasks. Last but not least, we thank our sponsors for the financial support that made the conference possible.

We look forward to seeing you in Quebec City, Canada, in 2017!

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