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Information Processing in Medical Imaging

26th International Conference, IPMI 2019
Hong Kong, China, June 2–7, 2019
Proceedings

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Preface

The 26th biennial international conference on Information Processing in Medical Imaging (IPMI) was held during June 2–7, 2019, at The Hong Kong University of Science and Technology, Hong Kong. The first IPMI meeting in 1969 took place in Brussels, organized by a group of young researchers who worked on the use of computers in nuclear medicine. In 1973, IPMI crossed the Atlantic to Boston (Cambridge), and the meeting's site has since alternated between Europe and the United States. IPMI 2019 broke new ground as the conference's first appearance in Asia, a continent that is ascendant on the global stage and is already a primary source of the young talent whose careers and development IPMI specifically strives to foster. This edition of the meeting also celebrated the 50th year of IPMI conference and its enduring impact on the field.

This year, 229 full paper submissions were received. Of these, 25 papers were accepted as oral presentations and 43 papers were selected for posters, resulting in an acceptance rate of 30%. Submissions underwent a double-blind review by three members of the Scientific Committee, who evaluated the clarity, novelty, methodological development, quality of evaluation, and clinical relevance of each paper. The Paper Selection Committee met in February to select papers for the scientific program based on the reviewers' detailed comments, rankings, and recommendations, and its independent judgment of the merits of each paper. A total of 68 papers were accepted and divided into 13 single-track oral and two poster presentation sessions, respectively. The breadth of the topics covered in IPMI 2019 reveals a diverse spectrum of exciting developments in medical imaging, including reconstruction, segmentation, registration, connectivity, disease modeling and prediction, shape analysis, functional and white matter imaging, computer-aided diagnosis, and other related topics.

IPMI meetings are renowned for cultivating a vibrant atmosphere in which in-depth academic exchange and community spirit are fostered. This year, the conference was attended by 141 participants, all of whom contributed to small study groups. Now a hallmark feature of IPMI, study groups are assigned and discuss papers selected for oral presentation, then help lead the discussion of the work at its presentation. Each talk was allotted a nominal amount of time on the schedule but discussion length was unrestricted and at the discretion of the session chair. The poster presentation sessions were also programmed to offer ample opportunity for interactive and in-depth discussion. Conference attendees enjoyed both social and sporting activities—including the Dragon's Back hike, Peak Circle Walk, a boat trip to Sharp Island, competitive athletic games, and the beloved IPMI choir—during the afternoons of conference day 3 and 4.

The keynote session featured two presentations: the first led by Drs. Stephen Pizer, Kenan Professor at the University of North Carolina at Chapel Hill, and James Duncan, Ebenezer K. Hunt Professor at Yale University, who celebrated the 50th year of IPMI by reviewing its illustrious past (including the third and 15th meetings organized by Steve and Jim, respectively); and the second by Dr. Xiaodong Tao, CEO of iFLYTEK

Health, who provided a glimpse of the meeting's future as represented by one country's ambitions, namely, China, in medical imaging artificial intelligence. The François Erbsmann Prize is awarded to a young scientist of age 35 or below, who is the first author of a paper, giving his/her first oral preparation at IPMI. This year, 22 of the 25 oral presenters were eligible for the prize. Once again, scholarships were offered to promote participation from minorities, women, and other underrepresented groups.

The meeting would not have been possible without the significant contributions and generous support from our dedicated colleagues at universities, foundations, and industry. We are particularly grateful for the financial sponsorship provided by the following organizations:

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The IPMI 2019 chairs would like to thank the Scientific Committee members for their essential reviewing work, the Paper Selection Committee members for their critical role in forming the meeting's scientific program, previous IPMI organizers, especially Martin Styner and Marc Niethammer, for sharing their experiences, Sharon Chiu for her invaluable administrative support, and our research group members (Jierong Wang, Tony Mok, Ziyi He, Yongxiang Huang, Han Zhang, Yishuo Zhang, Rongzhao Zhang, Pei Wang, and Colin Tsang) for their dedicated assistance in every aspect of the meeting.

By strengthening the connection of IPMI to the research community in Asia, the 2019 meeting in Hong Kong represented an exciting new chapter for the conference. We are delighted to have organized and served as hosts of IPMI 2019, and applaud the excellence of all of the work that appeared at the meeting and is documented in this volume.

June 2019

Albert Chung
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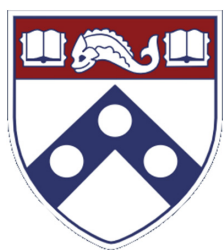
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