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Medical Imaging and Augmented Reality

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Preface

Rapid technical advances in medical imaging, including its growing application to drug/gene therapy and invasive/interventional procedures, have attracted significant interest in close integration of research in life sciences, medicine, physical sciences and engineering. This is motivated by the clinical and basic science research requirement of obtaining more detailed physiological and pathological information about the body for establishing localized genesis and progression of diseases. Current research is also motivated by the fact that medical imaging is increasingly moving from a primarily diagnostic modality towards a therapeutic and interventional aid, driven by recent advances in minimal-access and robotic-assisted surgery.

It was our great pleasure to welcome the attendees to **MIAR 2004**, the 2nd International Workshop on Medical Imaging and Augmented Reality, held at the Xiangshan (Fragrant Hills) Hotel, Beijing, during August 19–20, 2004. The goal of **MIAR 2004** was to bring together researchers in computer vision, graphics, robotics, and medical imaging to present the state-of-the-art developments in this ever-growing research area. The meeting consisted of a single track of oral/poster presentations, with each session led by an invited lecture from our distinguished international faculty members. For **MIAR 2004,** we received 93 full submissions, which were subsequently reviewed by up to 5 reviewers, resulting in the acceptance of the 41 full papers included in this volume. For this workshop, we also included 4 papers from the invited speakers addressing the new advances in MRI, image segmentation for focal brain lesions, imaging support for minimally invasive procedures, and the future of robotic surgery.

Running such a workshop requires dedication, and we are grateful for the generous support from the Chinese Academy of Sciences. We appreciate the commitment of the MIAR 2004 Programme Committee and the 50 reviewers who worked to a very tight deadline in putting together this workshop. We would also like to thank the members of the local organizing committee, who worked so hard behind the scenes to make **MIAR 2004** a great success. In particular, we would like to thank Paramate Horkaew, Shuyu Li, Fang Qian, Meng Liang, and Yufeng Zang for their dedication to all aspects of the workshop organization.

In addition to attending the workshop, we trust that the attendees took the opportunity to explore the picturesque natural scenery surrounding the workshop venue. The Fragrant Hills Park was built in 1186 in the Jin Dynasty, and became a summer resort for imperial families during the Yuan, Ming and Qing Dynasties. We also hope some of you had the time to further explore other historical sites around Beijing including the Forbidden City, the Temple of Heaven, the Summer Palace and the Great Wall. For those unable to attend, we hope this volume will act as a valuable reference to the MIAR disciplines, and we look forward to meeting you at future MIAR workshops.

August 2004

Max Viergever, Xiaowei Tang,
Tianzi Jiang, and Guang-Zhong Yang

MIAR 2004
2nd International Workshop on Medical Imaging and Augmented Reality

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