

Preface

Welcome to the proceedings of the 10th edition of the Augmented Reality for Computer-Assisted Interventions (AE-CAI) workshop. We are pleased to present the proceedings of this exciting workshop held in conjunction with MICCAI 2015 on October 9, 2015, in Munich, Germany.

The event was jointly organized by scientists from Rochester Institute of Technology (Rochester, NY, USA), National Institutes of Health and National Library of Medicine, and the Technical University of Munich (Munich, Germany). In addition, a Program Committee consisting of more than 70 international experts served as reviewers for the submitted papers.

The objective of the AE-CAI workshop was to attract scientific contributions that offer solutions to the technical problems in the area of augmented and virtual environments for computer-assisted interventions, and to provide a venue for dissemination of papers describing both complete systems and clinical applications. The community also encourages a broad interpretation of the field – from macroscopic to molecular imaging, passing the information on to scientists and engineers for the development of breakthrough therapeutics, diagnostics, and medical devices, which can then be seamlessly delivered back to patients. The workshop attracted researchers in computer science, biomedical engineering, computer vision, robotics, and medical imaging. This meeting featured a single track of oral and poster presentations showcasing original research engaged in the development of virtual and augmented environments for medical image visualization and image-guided interventions.

In addition to the proffered papers and posters, we were pleased to welcome as keynote speaker Dr. Simon Weidert (Ludwig Maximilian University, Munich, Germany) speaking on the development, clinical integration, and commercialization of computer-assisted surgery and simulation technology at the intersection of medicine and computer science.

AE-CAI 2015 attracted high-quality paper submissions from seven countries. The submissions were distributed for review to the Program Committee and each paper was evaluated, in a double-blind manner, by at least three experts, who provided detailed critiques and constructive comments to the authors and workshop editorial board. Based on the reviews, 15 papers were selected for oral and poster presentation and publication in these proceedings. The authors revised their submissions according to the reviewers' suggestions, and resubmitted their manuscripts, along with their response to reviewers, for a final review by the volume editors (to ensure that all reviewers' comments were properly addressed) prior to publication in this collection.

On behalf of the AE-CAI 2015 Organizing Committee, we would like to extend our sincere thanks to all Program Committee members for providing detailed and timely reviews of the submitted manuscripts. We also thank all authors, presenters, and attendees at AE-CAI 2015 for their scientific contribution, enthusiasm, and support.

We hope that you all will enjoy reading this volume and we look forward to your continuing support and participation in our future AE-CAI events.

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