

Preface

These proceedings cover the AMI/ARCS one-day satellite workshop of MICCAI 2008. This workshop continued the tradition of Augmented Reality in Computer Aided Surgery (ARCS) 2003 and Workshop on Augmented environments for Medical Imaging and Computer-aided Surgery (AMI ARCS) 2004 and 2006. The workshop is a forum for researchers involved in all aspects of augmented environments for medical imaging. Augmented environments aim to provide the physician with enhanced perception of the patient either by fusing various image modalities or by presenting medical image data directly on the physician's view, establishing a direct relation between the image and the patient.

The workshop was divided into three sessions on applications, accuracy & assessment and display & visualisation. There was also a poster session describing interesting and varied aspects of research in this field. There were two invited speakers. Professor Yoshinobu Sato from the Division of Image Analysis, Osaka University, Japan, gave a talk entitled *Deformation for endoscopic surgical navigation* about his work in augmented reality for thoracic and abdominal surgery including clinical experience with his system. Dr Mirna Lerotic from the Institute for Bioemdcial Engineering, Imperial College, London, UK, spoke about her work in augmented reality depth perception in a talk titled it Augmented reality for minimally invasive surgery.

There was a particlar focus on the path to clinical implementation and any barriers that might exist to implementation of systems in the operating room. A panel discussion on the future of clinical AR was held. This included two of the most prolific research directors in the field, Nassir Navab and Terry Peters. The industry perspective on the route to market was given by Daniel Ruijters from Philips Healthcare.

AMI/ARCS 2008 brought together clinicians and technical researchers from both industry and academia with interests in computer science, electrical engineering, physics, and clinical medicine to present the state-of-the-art developments in this ever-growing research area. We are delighted at the ongoing high level of interest in AMI/ARCS, with a steady number of participants and the continued high quality of the submissions. We are also pleased to see that there is a trend in the research from proof-of-principle demonstrators towards real clinical applications that will benefit patients in the foreseeable future.

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AMI/ARCS 2008

Organization

AMI/ARCS 2008 is organized jointly by the Imperial College, London, UK, the Technical University of Munich, Germany and Nagoya University, Japan. It was held in the Helen and Martin Kimmel Center, New York University as a satellite workshop of MICCAI 2008.

Program Committee

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