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Biomedical Image Registration

4th International Workshop, WBIR 2010
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Proceedings

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Preface

Welcome to the proceedings of the 4th Workshop on Biomedical Image Registration (WBIR). Previous WBIRs took place in Bled, Slovenia (1999), at the University of Pennsylvania, USA (2003) and in Utrecht, The Netherlands (2006). This year, WBIR was hosted by the Institute Mathematics and Image Processing and the Fraunhofer Project Group on Image Registration and it was held in Lübeck, Germany. It provided the opportunity to bring together researchers from all over the world to discuss some of the most recent advances in image registration and its applications.

We had an excellent collection of papers that were reviewed by at least three reviewers each from a 35-member Program Committee assembled from a worldwide community of registration experts. This year 17 papers were accepted for oral presentation, while another 7 papers were accepted as poster papers. We believe all of the conference papers were of excellent quality.

Registration is a fundamental task in image processing used to match two or more pictures taken, for example, at different times, from different sensors, or from different viewpoints. Establishing the correspondence of structures within medical images is fundamental to diagnosis, treatment planning, and surgical guidance. The conference papers address state-of-the-art techniques for providing reliable and efficient registration techniques, thereby imposing relationships between specific application areas and appropriate registration schemes.

We are grateful to all those who contributed to the success of WBIR 2010. In particular, we would like to thank the organization staff and members of the Program Committee for their work. We also thank Philips Medical Systems for kind and generous financial support. For those who did not attend, we hope this publication provides a good view into the research presented at the conference, and we look forward to meeting you at the next WBIR workshop.

July 2010

Bernd Fischer
Benoit Dawant
Cristian Lorenz

Organization

The 4th Workshop on Biomedical Image Registration was organized by the Institute of Mathematics and Image Computation (MIC), University of Lübeck and Fraunhofer MEVIS Project Group Image Registration, Lübeck.

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