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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Table of Contents

Applications

Unifying Vascular Information in Intensity-Based Nonrigid Lung CT Registration .................................................... 1
  Kunlin Cao, Kai Ding, Gary E. Christensen, Madhavan L. Raghavan, Ryan E. Amelon, and Joseph M. Reinhardt

Deformable Image Registration of Follow-Up Breast Magnetic Resonance Images ................................................ 13
  Tobias Boehler, Kathy Schilling, Ulrich Bick, and Horst K. Hahn

3D-Reconstruction of Basal Cell Carcinoma: A Proof-of-Principle Study ............................................................ 25
  Patrick Scheibe, Tino Wetzig, Jens-Peer Kuska, Markus Löffler, Jan C. Simon, Uwe Paasch, and Ulf-Dietrich Braumann

Monocular Deformable Model-to-Image Registration of Vascular Structures ...................................................... 37
  Martin Groher, Maximilian Baust, Darko Zikic, and Nassir Navab

Poster Session

Continuity Order of Local Displacement in Volumetric Image Sequence .............................................................. 48
  Koji Kashu, Yusuke Kameda, Masaki Narita, Atsushi Imiya, and Tomoya Sakai

Registration of 2D Images from Fast Scanning Ophthalmic Instruments ............................................................ 60
  Alfredo Dubra and Zachary Harvey

Registration of 3D Retinal Optical Coherence Tomography Data and 2D Fundus Images ........................................... 72
  Radim Kolar and Pavel Tasevsky

A Computational White Matter Atlas for Aging with Surface-Based Representation of Fasciculi ............................ 83
  Hui Zhang, Paul A. Yushkevich, Daniel Rueckert, and James C. Gee

Anatomical Landmark Based Registration of Contrast Enhanced T1-Weighted MR Images .................................... 91
  Ali Demir, Gozde Unal, and Kutlay Karaman
### Table of Contents

Bayesian Estimation of Deformation and Elastic Parameters in Non-rigid Registration ........................................ 104  
*Petter Risholm, Eigil Samset, and William Wells III*

Functional Non-rigid Registration Validation: A CT Phantom Study ..... 116  
*Sven Kabus, Tobias Klinder, Jens von Berg, and Cristian Lorenz*

**Evaluation**

Nonlinear Elastic Spline Registration: Evaluation with Longitudinal Huntington’s Disease Data ........................ 128  
*Marc Modat, Zeike A. Taylor, Gerard R. Ridgway, Josephine Barnes, Edward J. Wild, David J. Hawkes, Nick C. Fox, and Sébastien Ourselin*

Evaluating Image Registration Using NIREP ........................ 140  
*Joo Hyun Song, Gary E. Christensen, Jeffrey A. Hawley, Ying Wei, and Jon G. Kuhl*

A New Image Database for 3D/2D Registration Based on the Visible Human Data Set ................................. 151  
*Primož Markelj, Boštjan Likar, and Franjo Pernuš*

**Methods Part I**

Unifying Characterization of Deformable Registration Methods Based on the Inherent Parametrization: An Attempt at an Alternative Analysis Approach ........................................ 161  
*Darko Zikic, Ali Kamen, and Nassir Navab*

Reliability-Driven, Spatially-Adaptive Regularization for Deformable Registration ........................................ 173  
*Lisa Tang, Ghassan Hamarneh, and Rafeef Abgharbieh*

Large Deformation Diffeomorphic Registration Using Fine and Coarse Strategies ........................................ 186  
*Laurent Risser, François-Xavier Vialard, Maria Murgasova, Darryl Holm, and Daniel Rueckert*

Log-Domain Diffeomorphic Registration of Diffusion Tensor Images .... 198  
*Andrew Sweet and Xavier Pennec*

**Model Based Registration**

Nonrigid Registration and Template Matching for Coronary Motion Modeling from 4D CTA .............................. 210  
*Dong Ping Zhang, Laurent Risser, Ola Friman, Coert Metz, Lisan Neefjes, Nico Mollet, Wiro Niessen, and Daniel Rueckert*
Cardiac Respiratory Motion Modelling by Simultaneous Registration and Modelling from Dynamic MRI Images .......................... 222
   A.P. King, C. Buerger, and T. Schaeffter

Model-Based Registration for Motion Compensation during EP Ablation Procedures .................................................. 234
   Alexander Brost, Rui Liao, Joachim Hornegger, and Norbert Strobel

Methods II

Spatial Information Encoded Mutual Information for Nonrigid Registration ................................................................. 246
   Xiahai Zhuang, David J. Hawkes, and Sebastien Ourselin

Normalized Measures of Mutual Information with General Definitions of Entropy for Multimodal Image Registration ................... 258
   Nathan D. Cahill

Nonlinear Elasticity Registration and Sobolev Gradients ............... 269
   Tungyou Lin, Ivo Dinov, Arthur Toga, and Luminita Vese

Author Index ................................................................. 281