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Stefan Wesarg · Miguel Ángel González Ballester
Klaus Drechsler · Yoshinobu Sato
Marius Erdt · Marius George Linguraru (Eds.)

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Clinical Image-Based Procedures

Translational Research in Medical Imaging

4th International Workshop, CLIP 2015
Held in Conjunction with MICCAI 2015
Munich, Germany, October 5, 2015, Revised Selected Papers

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Preface

These proceedings contain the papers presented at the 4th MICCAI Workshop on Clinical Image-Based Procedures: Translational Research in Medical Imaging (CLIP). CLIP 2015 was successfully held in Munich, Germany, on October 5, 2015, in conjunction with the 18th International Conference on Medical Image Computing and Computer-Assisted Interventions (MICCAI).

CLIP focuses on translational research. Therefore, the goal of the works presented in this workshop is to bring basic research methods closer to clinical practice. In this sense, CLIP aims to be a meeting point were experts of both fields meet and discuss current methods and applications.

As in previous CLIP workshops, all submitted papers were peer-reviewed by at least three experts. CLIP 2015 received 22 submissions (two from Asia, nine from North America, and 11 from Europe) and 15 of them were accepted for publication. All accepted papers were presented by their authors during the workshop. During two keynote sessions, clinical highlights were presented by Prof. Hans-Florian Zeilhofer (Hightech Research Center of Cranio-Maxillofacial Surgery, University Hospital Basel, Switzerland) and Prof. Andreas Melzer (Innovation Centre for Computer-Assisted Surgery, Leipzig University, Germany). These interesting keynotes were followed by lively discussions in which all attendees were involved. We would like to thank Prof. Zeilhofer and Prof. Melzer for this big success.

The six papers with the highest review score were nominated to be considered as best papers. From these, the three best papers were chosen by votes cast by workshop participants who had attended all six presentations of the nominated papers (workshop organizers were excluded). Three papers were then awarded. First place went to Ian J. Gerard, Marta Kersten-Oertel, Simon Drouin, Jeffery A. Hall, Kevin Petrecca, Dante De Nigris, Tal Arbel, and D. Louis Collins for their work on improving patient-specific neurosurgical models with intraoperative ultrasound and augmented reality visualizations in a neuronavigation environment. Second place was given to Nerea Mangado, Mario Ceresa, Hector Dejea, Hans Martin Kjer, Sergio Vera, Rasmus Reinhold Paulsen, Jens Fagertun, Pavel Mistrik, Gemma Piella, and Miguel Ángel González Ballester for their synthetic population-based study on monopolar stimulation of the implanted cochlea. Third place was conferred on Carles Sanchez, Marta Diez-Ferrer, F. Javier Sánchez, Jorge Bernal, Antoni Rosell, and Debora Gil for their contributions in navigation path retrieval from videobronchoscopy using bronchial branches. We would like to congratulate warmly all the prize winners for their outstanding work and exciting presentations. Furthermore, we would like to thank our sponsors MedCom and Exocad for their support.

Finally, we would like to take this opportunity to thank all our Program Committee members, authors, and attendees who helped CLIP 2015 to be a great success.

December 2015

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