

PIA15 - Photogrammetric Image Analysis HRIGI15 - High Resolution Earth Imaging for Geospatial Information

25-27 March 2015, Munich, Germany

PREFACE

Automated extraction of objects from remotely sensed data is an important topic of research in Computer Vision, Photogrammetry, Remote Sensing, and Geoinformation Science. In order to discuss recent developments and future trends in research in automatic object extraction and their influence on sensors and processing techniques, the two well known ISPRS workshops "Photogrammetric Image Analysis" (PIA) and "High Resolution Earth Imaging for Geospatial Information" (HRIGI, also known as the ISPRS-Hannover Workshop) are held as a common event for the first time.

While in the past PIA specialised on the automatic exploitation of the image content, the strongest side of HRIGI was the geometric processing of aerial and in particular of space imagery. Realising that both areas - geometry and semantics - can significantly support each other when considered together in photogrammetric image exploitation, the two events, organised under a common roof, are held at Technische Universität München (TUM) in March 2015. At the same time they keep their identity, as the meeting is organised as two parallel workshops with common plenary sessions and common proceedings.

The aim of the common event is to seek, exploit and deepen the synergies between geometry and semantics, and to give the two scientific communities the possibility to discuss with and to learn from each other. The joint event addresses experts from research, government, and private industry. It consists of high quality papers, and provides an international forum for discussion of leading research and technological developments as well as applications in the field. The range of topics covered by the conference is reflected by the terms of reference of the cooperating ISPRS working groups:

- WG I/2: LiDAR, SAR and Optical Sensors for Airborne and Spaceborne Platforms
- WG I/4: Geometric and Radiometric Modeling of Optical Airborne and Spaceborne Sensors
- WG III/1: Orientation and Surface Reconstruction
- WG III/4: 3D Scene Analysis
- WG IV/1: Methods for the Update and Verification of Geospatial Databases
- WG VII/2: DEM Generation and Surface Deformation Monitoring from SAR Data
- ICWG III/VII: Pattern Analysis in Remote Sensing

Prospective authors were invited to submit either full papers or abstracts. In total we received 120 contributions from 27 countries.

Full papers (max. 8 pages) underwent a rigorous double blind peer review process. We received 59 full papers coming from 19 countries for review. Most papers were reviewed by three members of the program committee. In total we received 182 full paper reviews from 34 reviewers. The maximum number of full papers per reviewer was 8. Altogether 38 papers were accepted based on the reviews for publication in the "*ISPRS Annals of the Photogrammetry, Remote Sensing and Spatial Information Sciences*" which correspond to an acceptance rate of 64%. The fact that the full papers were peer reviewed is mentioned on each paper.

Papers not passing the full paper peer review process were considered in the following abstract review process. In total 82 contributions were reviewed for publication in “*The International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences*”. Finally 43 final papers were accepted for publication. Altogether PIA15+HRIGI15 featured 9 oral sessions, 3 poster sessions and 2 invited talks, namely “Solving minimal problems for 3D reconstruction from images“ given by Tomas Pajdla and “TerraSAR-X, TanDEM-X and beyond“ given by Richard Bamler.

Finally, the editors wish to thank all contributing authors and the members of the Program Committee, namely:

- Richard Bamler, German Aerospace Center (DLR), Germany
- Yifang Ban, Royal Institute of Technology Stockholm, Sweden
- Xavier Briottet, ONERA, France
- Ismael Colomina, Centre Tecnològic de Telecomunicacions de Catalunya, Spain
- Michele Crosetto, Centre Tecnològic de Telecomunicacions de Catalunya, Spain
- Wolfgang Förstner, University of Bonn, Germany
- Clive Fraser, University of Melbourne, Australia
- Markus Gerke, University of Twente, ITC, The Netherlands
- Norbert Haala, University of Stuttgart, Germany
- Ayman Habib, Purdue University, USA
- Petra Helmholz, Curtin University, Australia
- Stefan Hinz, Karlsruhe Institute of Technology, Germany
- Ludwig Hoegner, Technische Universität München, Germany
- David Holland, Ordnance Survey Southampton, United Kingdom
- Eija Honkavaara, Finnish Geodetic Institute, Finland
- Karsten Jacobsen, Leibniz Universität Hannover, Germany
- Boris Jutzi, Karlsruhe Institute of Technology, Germany
- Peter Krzystek, University of Applied Science Munich, Germany
- Helmut Mayer, Bundeswehr University Munich, Germany
- Jochen Meidow, Fraunhofer IOSB, Germany
- Franz Meyer, University of Alaska Fairbanks, USA
- Eckart Michaelsen, Fraunhofer IOSB, Germany
- Jon Mills, Newcastle University, United Kingdom
- Peter Reinartz, German Aerospace Center (DLR), Germany
- Franz Rottensteiner, Leibniz Universität Hannover, Germany
- Jie Shan, Purdue University, USA
- Uwe Sörgel, Technische Universität Darmstadt, Germany
- Gunho Sohn, York University Toronto, Canada
- Charles Toth, The Ohio State University, USA
- Devis Tuia, EPFL Lausanne, Switzerland
- Jan Dirk Wegner, ETH Zuerich, Switzerland
- Wei Yao, University of Applied Science Munich, German

In addition, we like to express our thanks to the Local Organising Committee, without whom this event could not have taken place. Ludwig Hoegner did a great job with the management of the conference tool. The final word processing of all incoming manuscripts and the preparation of the proceedings by Alexander Hanel are gratefully acknowledged. Konrad Eder and Dorota Iwaszczuk also did a great job organizing the social events and accommodation, and so did Sebastian Tuttas in caring for the technical equipment and for the local organizing committee assistants. We would also like to thank Christine Elmauer, Tessio Novack, Li Fang, Yusheng Xu and Gabriele Aumann for their support to make PIA15+HRIGI15 a successful event.

Uwe Stilla and Christian Heipke
Conference Chairs of PIA15+HRIGI15