



## ISPRS Hannover Workshop 2017

featuring

**HRIGI** - High-Resolution Earth Imaging for Geospatial Information

**CMRT** - City Models, Roads, Traffic

**ISA** - Image Sequence Analysis

**EuroCOW** - European Calibration and Orientation Workshop

June 6 - 9, 2017

**HANNOVER, Germany**

Cooperating WGs: I/4, I/9, II/4, II/5, II/6, III/3, IC I/IV, IC II/III

hosted by

**IPI** - Institut für Photogrammetrie und GeoInformation,  
Leibniz Universität Hannover  
[www.ipi.uni-hannover.de/hrigi17](http://www.ipi.uni-hannover.de/hrigi17)

Gold sponsor



Sponsors



geonumerics

## Goals of the joint ISPRS event

Sensor calibration, image orientation, object extraction and scene understanding from images and image sequences are important research topics in Photogrammetry, Remote Sensing, Computer Vision and Geoinformation Science. In these tasks, geometry and semantics both play an important role, and high quality results require proper handling of all these aspects. While individual algorithms differ according to the imaging geometry and the employed sensors and platforms, all mentioned aspects need to be integrated in a proper workflow to solve most real-world problems.

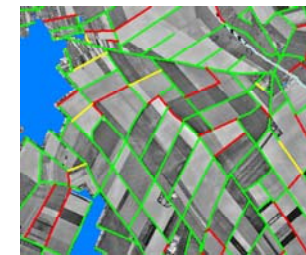
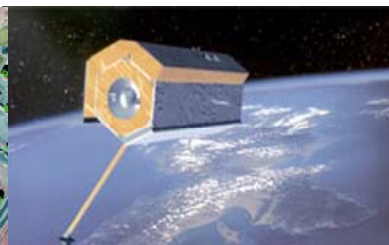
This observation has led to launching a common event for a number of well-established scientific meetings under the roof of the ISPRS Hannover Workshop. While HRIGI and EuroCOW are more on the geometric side, CMRT and ISA have a legacy in automatic object reconstruction and trajectory computation. The organisers of the 2017 edition of these workshops believe that significant synergy can be achieved by bringing the various scientific communities together in the same place and at the same time in order to discuss recent developments and future trends in research in automatic object extraction and their influence on sensors and processing techniques. While we intend to have common plenary sessions in this event, the individual workshops will keep their identity as each session will be dedicated to one of the workshops only.

The aim of the common event is to seek, exploit and deepen the synergies between geometry, semantics and sensor modelling, and to give the different scientific communities the possibility to discuss with and to learn from each other. At the same time the advantages of focussed specialised workshops are being maintained. 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.

## Topics and paper submission

You are encouraged to contribute to the event by submitting unpublished research in the areas of

- Small satellites and satellite constellations
- Exploitation of high resolution space images
- Unmanned aircraft systems (UAS)
- Sensing technology and unconventional platforms
- High-resolution SAR from air and space
- Hyperspectral imaging
- Sensor and system calibration, integration and orientation
- New GNSS constellations and MEMS inertial sensing for online and offline trajectory estimation
- DEM generation and surface deformation from SAR
- Automatic object extraction from terrestrial, aerial and space-borne images, LiDAR, and SAR, with a focus on an urban context
- Detection, 3D reconstruction and update of city models, roads, vegetation and urban infrastructure
- Updating of existing 3D city models and road data bases and automatic texturing
- Global landcover/landuse, change detection
- Rapid mapping for environmental applications and disaster management
- Quality assessment of automatically extracted topographic objects
- Machine learning and data fusion for urban scenes
- Image sequence analysis
- Object detection and tracking for applications in robotics, autonomous driving and mobile mapping
- Dynamic scene understanding
- Integration of images, motion and vehicle models
- Security/surveillance



Prospective authors are invited to submit a full paper or an extended abstract in English, formatted according to the ISPRS guidelines,

<http://www.isprs.org/documents/orangebook/app5.aspx>

Full papers will undergo a rigorous double blind review process. Accepted papers will be published in the ISPRS Annals series. Abstracts will also be peer reviewed, upon acceptance authors will be invited to submit a regular paper, which will be published in the Archives series of ISPRS. Note that only papers for which at least one author has paid the registration by April 15, 2017, will be published in the proceedings.

The organizers are proud to announce that Hexagon Geosystems agreed to once again sponsor the event. During Thursday afternoon there will be a master class where the processing chain of photogrammetry and remote sensing is illustrated by software demonstrations and real-life examples.

### Registration

The fee includes admission to all sessions, conference proceedings, coffee and a social event. Further information is available at

Claudia Sander, IPI

[secretariat@ipi.uni-hannover.de](mailto:secretariat@ipi.uni-hannover.de)

The registration fee will be  
380.00 € if paid by April 15, 2017  
450.00 € after April 15, 2017

### Students:

190.00 € (copy of B.Sc. or M.Sc. ID required)

### Programme Committee

#### Chairs:

**HRIGI:** Christian Heipke (Leibniz Universität Hannover),  
Karsten Jacobsen (Leibniz Universität Hannover)

**CMRT:** Franz Rottensteiner (Leibniz Uni. Hannover),  
Uwe Stilla (Technical University München)

**ISA:** Alper Yilmaz (The Ohio State University),  
Michael Yang, (University of Twente)

**EuroCOW:** Ismael Colomina (GeoNumerics),  
Jan Skaloud (EPFL Lausanne)

#### Members:

Costas Armenakis (York University)  
Richard Bamler (DLR)  
Francesca Bovolo (FBK Trento)  
Lin Chen (Leibniz Universität Hannover)  
Michael Cramer (Universität Stuttgart)  
Mattia Crespi (Universita' di Roma "La Sapienza")  
Michele Crosetto (CTTC, Castelfidels)  
Clive Fraser (University of Melbourne)  
Jürgen Gall (University of Bonn)  
Markus Gerke (University of Twente)  
Craig Glennie (University of Houston)  
Valérie Gouet-Brunet (IGN France)  
Norbert Haala (Universität Stuttgart)  
Ayman Habib (Purdue University)  
Petra Helmholz (Curtin University)  
Isabelle Herlin (INRIA, Paris)  
Stefan Hinz (Karlsruhe Institute of Technology)  
Ludwig Hoegner (TU München)  
Eija Honkavaara (National Land Survey of Finland)  
Siavash Hosseinyalamdary (University of Twente)  
Boris Jutzi (Karlsruhe Institute of Technology)  
Clement Mallet (IGN, Paris)  
Helmut Mayer (Bundeswehr Universität München)  
Jon Mills (Newcastle University)  
Mahdi Motagh (GFZ Potsdam)  
Stefan Nebiker (FHNW Basel)  
Nicolas Paparoditis (IGN France)  
Peter Reinartz (DLR)  
Petri Rönholm (Aalto University)  
Ribana Roscher (University of Bonn)  
Uwe Sörgel (Universität Stuttgart)  
Bahman Soheilian (Renault France)  
Gunho Sohn (York University)  
Jie Shan (Purdue University)  
Xinming Tang (Nat. Admin. SMG, China)  
Charles Toth (The Ohio State University)  
Devis Tuia (University of Zurich)  
Bruno Vallet (IGN France)  
Michele Volpi (University of Zurich)  
Jan Dirk Wegner (ETH Zürich)  
Martin Weinmann (Karlsruhe Institute of Technology)  
Wen Xiao (Newcastle University)  
Guisong Xia (Wuhan University)

(Additional members may be announced)

## ISPRS Hannover Workshop June 6-9, 2017



### IMPORTANT DATES

**Deadline for full papers (max. 8 pages):**

January 31, 2017

**Deadline for abstracts (approx. 1000 words):**

February 28, 2017

**Notification of acceptance:**

March 15, 2017

**Deadline for camera ready manuscripts:**

April 15, 2017

**Deadline for early registration:**

April 15, 2017