



Programme

Excellence in Photogrammetry, Computer Science and Geoinformatics

55th Photogrammetric Week

Excellence in Photogrammetry, Computer Science and Geoinformatics

The Institute for Photogrammetry of the University of Stuttgart and the OpenPhoWo Partners would like to give notice of the

55th Photogrammetric Week in Stuttgart from Monday, September 7 to Friday, September 11, 2015.

This regular event was initiated by Carl Pulfrich as a "vacation course in photogrammetry" in 1909; since 1973 it has been held at the University of Stuttgart. Today, the Photogrammetric Week enjoys international recognition as an upgrading seminar and a platform for the exchange of knowledge and experience.

Since 1992 this event has continuously been further developed and driven to excellence under the auspices of Professor Dieter Fritsch. As he will retire by the end of September 2015 this will be his „Farewell PhoWo“.

The lectures by experts from Germany and abroad will be focused on the following topics:

- Remotely Sensed Data Acquisition – An Update
• Advanced Modelling in Photogrammetry, Computer Vision and Computer Graphics
• Excellence in Geoinformatics

The presentations will be in English. Sufficient time will be allocated for discussions.

The program will be supplemented with demonstrations and comments on practical examples in the afternoons. The fringe events will offer sufficient opportunity for personal contacts.

In addition, a tutorial on "Excellence in Photogrammetry – From UAV Data Collection and Data Processing to Advanced 3D Modelling" will be held by the Institute for Photogrammetry (ifp) on Sunday, September 6, 2015.

We look forward to meeting you in Stuttgart.

Handwritten signature of Prof. Dr.-Ing. Dieter Fritsch

Prof. Dr.-Ing. Dieter Fritsch
Institute for Photogrammetry
University of Stuttgart

Monday, September 7, 2015

Table with 2 columns: Time and Event. Rows include: from 7:30 Registration of participants; 9:00 Opening of the 55th Photogrammetric Week; 9:30 Music, Welcome Addresses; 9:30 Dieter Fritsch, ifp Univ. Stuttgart, Stuttgart, Germany; 10:15 Break, Conference Photo; 11:00 John Welter, Hexagon Geospatial Division, Heerbrugg, Switzerland; 11:15 Tobias Heuchel, Trimble, Stuttgart, Germany; 11:25 Philipp Grimm, IGI, Kreuztal, Germany; 11:35 Alexander Wiechert, Microsoft Vexcel, Graz, Austria; 11:45 Werner Mayr, GerMAP, Welzheim, Germany; 11:55 Yuri Raizman, VisionMap, Tel Aviv, Israel; 12:05 Chance Coughenour, ifp Univ. Stuttgart, Stuttgart, Germany; 12:30 Announcements; 14:30 Demonstrations; 17:00 Ice Breaker Party.

Tuesday, September 8, 2015

**1<sup>st</sup> Topic: "Remotely Sensed Data Acquisition – An Update"**

- 8:30 **Fabio Remondino, Fondazione Bruno Kessler, Trento, Italy**  
Oblique Aerial Imagery – A Review
- 9:00 **Georg Bareth, Univ. Cologne, Germany**  
3D Data Acquisition to Monitor Cropping Systems: Sensors and Methods
- 9:30 **Wolfgang Wagner, TU Vienna, Austria**  
Big Data Infrastructures for Processing Sentinel Data
- 10:00 Coffee Break
- 10:30 **Norbert Pfeifer, TU Vienna, Austria**  
Lidar: Exploiting the Versatility of a Measurement Principle in Photogrammetry
- 11:00 **Norbert Haala, ifp, Univ. Stuttgart, Germany**  
Image-based 3D Data Capture in Urban Scenarios
- 11:30 **Ismael Colomina, GeoNumerics S.L., Castelldefels, Spain**  
On Trajectory Determination for Photogrammetry and Remote Sensing: Sensors, Models and Exploitation
- 12:00 **Heiko Hirschmueller, Inst. Robotics, DLR Oberpfaffenhofen, Germany**  
Computer Vision for Mobile Robot Navigation
- 12:30 Lunch Break
- 14:30 **Demonstrations**  
- in groups according to separate schedule (in D & E)
- 17:00
- 18.00 **Reception** (Formal Dress Code desired)



Wednesday, September 9, 2015

**2<sup>nd</sup> Topic: "Advanced Modelling in Photogrammetry, Computer Vision and Computer Graphics"**

- 8:30 **Christian Heipke, Univ. Hannover, Germany**  
Image Analysis Based on Probabilistic Models
- 9:00 **Helmut Mayer, UniBw Neubiberg, Munich, Germany**  
From Orientation to Functional Modeling for Terrestrial and UAV Images
- 9:30 **Konrad Schindler, ETH Zurich, Switzerland**  
Recent Developments in Large-scale Tie-point Search
- 10:00 Coffee Break
- 10:30 **Luc van Gool, Univ. Leuven, Belgium**  
Real-time Photometric Stereo
- 11:00 **Michael Klein, 7reasons, Vienna, Austria**  
The 4D-CH Calw Project - Spatio-temporal Modelling of Photogrammetry and Computer Graphics
- 11:30 **Daniel Thalmann, Nanyang Tech. University Singapore**  
Hand Motion and Grasping: Capturing, Recognizing and Synthesizing
- 12:00 **The Carl Pulfrich Award 2015 Ceremony**  
- Jürgen Dold, Hexagon Geosystems, Heerbrugg, Switzerland (Introduction)  
- The Carl Pulfrich Awardee
- 12:30 Lunch Break
- 14:30 **Demonstrations**  
in groups according to separate schedule (in D & E)
- 15:30 Coffee Break
- 16:00 **Dieter Fritsch's Open Farewell, ifp, Univ Stuttgart**  
More Than Five Decades of Geodesy and Geoinformatics
  - Keynote: Dr. Jürgen Dold, President Hexagon Geosystems
  - Rector Prof Wolfram Ressel
  - GUC BoT Chairman and Founder, Prof Ashraf Mansour
  - Former President of SUSTECH, Khartoum, Prof Izzeldin Osman
  - Dean Faculty of Aerospace Engineering, Prof Stephan Staudacher
  - Deputy Inst. Photogrammetry, Prof Norbert Haala
  - Notes by Open PhoWo Partners
  - ISPRS President, Prof. Chen Jun
  - EuroSDR President
  - Apple Education Program, Gertraud Unger
  - Participants of PhoWo
- 18:00 **Reception and Get-Together Lounge 17.01**

Thursday, September 10, 2015

- 8:30 **Hans-Gerd Maas, TU Dresden, Germany**  
Photogrammetric Techniques for Spatio-temporal Analyses of Glacier Motion Patterns
- 9:00 **Manfred Buchroithner, TU Dresden, Germany**  
High up and Deep below – Dynamic 3D Cartography at the Roof of the World and in Sea-Level Caves
- 9:30 **George Vosselman, Univ. Twente, The Netherlands**  
From Nationwide Point Clouds to Nationwide 3D Landscape Models
- 10:00 Break
- 10:30 **Clive Fraser, Univ. Melbourne, Australia**  
Advances in Close-Range Photogrammetry
- 11:00 **Nadia Magnenat-Thalmann, MiraLab, Univ. Geneva, Switzerland**  
Image-based 3D Avatar for Virtual Try-on Applications
- 11:30 **Thomas Ertl, VisUS, Univ. Stuttgart, Germany**  
GeoVis – From Terrain to Tweets and Movements
- 12:00 **Kurt Rothermel, Inst. Distributed Systems, Univ. Stuttgart, Germany**  
Public Sensing – Using Your Mobile Phone for Crowd Sourcing
- 12:30 Lunch Break
- 14:30 **Demonstrations**  
- in groups according to separate schedule (in D & E)
- 17:00
- Evening: **Get-Together Night at Alte Kelter in Fellbach**  
18:00 Busses will leave for Get-Together and PhoWo Dinner Party  
19:00 Get-Together Night and PhoWo Dinner Party, Alte Kelter, Fellbach  
Return at about 22:30



Friday, September 11, 2015

**3<sup>rd</sup> Topic: "Excellence in Geoinformatics"**

- 9:00 **Liqiu Meng, TU Munich, Germany**  
Mobility and Visuality of the Digital World
- 9:30 **Lutz Pluemer, Univ. Bonn, Germany**  
Early Identification of Plant Stress in Hyperspectral Images
- 10:00 **Monika Sester, Univ. Hannover, Germany**  
Interpretation of Moving Point Trajectories
- 10:30 Coffee Break
- 11:00 **Thomas H. Kolbe, TU Munich, Germany**  
CityGML goes to Broadway
- 11:30 **Ralf Bill, Univ. Rostock, Germany**  
Geoinformatics and e-Science
- 12:00 **Marguerite Madden, Univ. Athens, USA**  
The Future of Unmanned Aerial Systems (UAS) for Monitoring Natural and Cultural Resources
- 12:30 **Closing Session**  
Wrap-up of Dieter Fritsch, Music
- 13:00 **Farewell Party**

**Demonstrations of the OpenPhoWo Partners**  
(in groups according to separate schedule)

- A** Airborne Imaging and Automated 3D Modelling (**Hexagon**)
- B** Laser Scanning News: Bathymetry and Mobile Mapping (**Hexagon**)
- C** Trimble Photogrammetric Solutions (**Trimble**)
- D** IGI – Integrated Geospatial Innovations (**IGI**)
- E** UltraCam and UltraMap (**Vexcel Imaging/Microsoft**)
- F** Different Tasks – Different UAV Tools (**GerMAP**)
- G** A3 Edge and LightSpeed (**VisonMap**)

**Site of the seminar**

Lectures and discussions will be held in the basement auditorium of building K2 of the University of Stuttgart, Keplerstrasse 17. Rooms for demonstrations are available in buildings K1 and K2.

**Duration of the seminar**

Beginning: Monday, September 7, 2015  
End: Friday, September 11, 2015

**Lectures and discussions**

As in the past, the lectures and discussions will be held in the morning. The conference language will be English.

**Demonstrations of instruments and systems**

Demonstrations are scheduled for the afternoons. Working groups will be formed in accordance with the particular interests of each participant and the language spoken.

**Fringe programme**

A fringe programme will give all participants the opportunity for personal contacts and individual discussions.

**Accommodation**

Accommodation can directly be booked at Stuttgart Marketing GmbH by either  
Fax +49 711 22 28 251  
email: hotels@stuttgart-tourist.de  
www: <http://www.stuttgart-tourist.de>

**Registration and fees**

Registration for the 55<sup>th</sup> Photogrammetric Week should be addressed to:  
Institute for Photogrammetry (ifp)  
University of Stuttgart  
Geschwister-Scholl-Str. 24(D)  
D-70174 Stuttgart  
Phone: +49 711 685 83201, Fax: +49 711 685 83297  
email: [martina.kroma@ifp.uni-stuttgart.de](mailto:martina.kroma@ifp.uni-stuttgart.de)  
www: <http://www.ifp.uni-stuttgart.de>

The participation fee is 500,00 Euro for registration and payment by **June 30, 2015** and 550,00 Euro after that date. For daily admission it is 250,00 Euro. For participation in the tutorial there is a charge of 250,00 Euro.

Stuttgart is the state capital of Baden-Württemberg. It has a population of about 590000. Situated in the valley of Neckar river, between the hills of the Swabian Alb and the Black Forest, it is often called "the city between forests and vineyards". A large number of cultural highlights are to be found in the city including opera, ballet, theatres, concert and music halls, art galleries, and various famous museums. There is also a rich variety of sports events as well as many possibilities for individual activities such as mountain biking and hiking. Due to Stuttgart's central location, it is easy to visit neighboring countries like France, Switzerland, Italy, Austria, Czech Republic, Belgium and the Netherlands.

The Stuttgart region is one of the most attractive regions in Germany. It is well known for its high-tech industries such as car manufacturing, environmental technologies, machining tools, electronics and information and communication technology. Many internationally renowned companies such as Daimler, Porsche, Bosch, HP and IBM Germany have their headquarters and factories in the Stuttgart region. In addition, numerous smaller and medium sized technology-oriented companies are making their mark on the industrial and business environment.

