



Universität Stuttgart



Programme

From
High Definition
Point Clouds
to 3D Virtual
Reality Models

54th Photogram-
metric
Week

www.ifp.uni-stuttgart.de/phowo

Monday, September 9, 2013

- from 7:30 Registration of participants
- 9:00 **Opening of the 54th Photogrammetric Week**
Music, Welcome Addresses
- 9:30 **Uwe Franke, Daimler Research, Stuttgart/Germany**
[How Cars Learned to See](#)
- 10:15 Coffee Break, Conference Photo
- Brief lectures by the OpenPhowo Partners**
- 11:00 **Jack Ickes, Hexagon Geospatial Division, Heerbrugg/Switzerland**
From Sensor to Information – The evolution continues.
- 11:15 **Ralph Humberg, Trimble, Munich/Germany**
Connecting the Dots and Points in the Geospatial World
- 11:25 **Albrecht Grimm, IGI, Kreuztal/Germany**
IGI – History – Present – Future
- 11:35 **Alexander Wiechert, Microsoft Vexcel, Graz/Austria**
UltraCam and UltraMap - An Update
- 11:45 **Stewart Walker, BAE Systems, San Diego/USA**
The Product Pipeline of BAE Systems for Photogrammetry & Remote Sensing
- 11:55 **Yaron Vilan, VisionMap, Tel Aviv/Israel**
VisionMap Sensors & Processing Roadmap
- 12:05 **Konrad Wenzel, ifp Univ. Stuttgart, Stuttgart/Germany**
SURE - The ifp Software for Dense Image Matching
- 12:30 **Announcements**
Lunch Break
- 14:30 **Demonstrations**
- in groups according to separate schedule (in D & E)
- 17:00 **Ice Breaker Party**
- in the Conference Building K2 (Foyer Lecture Hall)
- 20:00

Tuesday, September 10, 2013

- 1st Topic: "Data Collection From Air, Space and Ground - An Update"**
- 8:30 **Dieter Fritsch, ifp Univ. Stuttgart/Germany**
Oblique Image Data Processing – Potential, Experiences and Recommendations
- 9:00 **Ruediger Wagner, Hexagon, Heerbrugg/Switzerland**
Urban Mapping Applications
- 9:30 **Yuri Raizman, VisionMap, Tel Aviv/Israel**
High Throughput Aerial Photography, Ortho & 3D Processing
- 10:00 Coffee Break
- 10:30 **Michael Gruber, MS Vexcel, Graz/Austria**
Oblique Image Collection - Challenges and Solutions
- 11:00 **Jens Kremer, IGI Kreuztal/Germany**
Contour Flying for Airborne Data Acquisition
- 11:30 **Peter van Blyenburgh, UVS International, Paris/France**
RPAS - The European Approach & The Way Forward
- 12:00 **Werner Mayr, GerMAP GmbH**
Unmanned Aerial Systems – for the Rest of Us
- 12:25 **Michael Cramer, ifp Univ Stuttgart/Germany**
The UAV@LGL BW Project - A NMCA Case Study
- 12:50 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 11, 2013

8:30 **Andreas Schilling, Comp. Science, Univ Tuebingen/Germany**
Another Step towards Measuring the World from the Air:
Model-Based 3D Real-Time Simulation of Micro-UAV

9:00 **Uwe Soergel, IPI Leibniz Univ Hannover/Germany**
The TanDEM X Mission: Data Collection and Deliverables

9:30 **Juha Hyyppä, FGI Helsinki/Finland**
Unconventional LiDAR Mapping from Air, Terrestrial and
Mobile

10:00 Coffee Break

**2nd Topic: "Advanced Methods of Computer Vision and Photo-
grammetry"**

10:30 **Luc van Gool, Univ. Leuven/Belgium**
Image-based 3D City Modeling and Mobile Mapping

11:00 **Martin Schaich, Arctron, Altenthann/Germany**
Combined 3D Scanning and Photogrammetry Surveys with
3D Database Support for Archaeology & Cultural Heritage.
A Practice Report on ArcTron's Information System
aSPECT3D

11:30 **Andreas Ullrich, RiegI, Horn/Austria**
Sampling the World in 3D By Airborne LiDAR - Assessing the
Information Content of LiDAR Point Clouds

12:00 **Carl Pulfrich Award 2013 Ceremony**
- Jürgen Dold, Hexagon Geosystems, Heerbrugg, Switzerland
(Introduction)
- Carl Pulfrich Laureate

12:30 Lunch Break

14:30 **Demonstrations**
- in groups according to separate schedule (in D & E)
17:00

Thursday, September 12, 2013

8:30 **Samuel Bärtsch, GAF, Munich/Germany**
Dense 3D Photogrammetry

9:00 **Nobert Haala, Inst. Photogrammetry, Univ. Stuttgart/Germany**
The Landscape of Dense Image Matching Algorithms

9:30 **Philippe Simard, SimActive, Montreal/Canada**
Dense DSM Generation Using the GPU

10:00 Coffee Break

10:30 **Panel Discussion**
"From High Definition Point Clouds to 3D Virtual Reality Mo-
dels"

Panel Chair: **Dieter Fritsch**, ifp, University of Stuttgart

Panelists:

- **Samuel Bärtsch**, GAF
- **Jürgen Dold**, Hexagon Geospatial Division
- **Luc van Gool**, Univ Leuven
- **Juha Hyyppä**, FGI Helsinki
- **Daniel Thalmann**, EPFL, Lausanne
- **Andreas Ullrich**, RiegI

12:30 Lunch Break

14:30 **Demonstrations**
- in groups according to separate schedule (in D & E)
17:00

Evening: **Get-Together Night at Bürgerhaus in Maichingen**
18:00 Busses will leave for Get-Together and Phowo Dinner
Party

19:00 Get-Together Night and Phowo Dinner Party, Bürger-
haus, Maichingen

Return at about 22:30

Friday, September 13, 2013

**3rd Topic: "Solving the Future Mapping Problems, All About
3D Modelling"**

9:00 **Daniel Thalmann, EPFL, Lausanne/Switzerland**
Towards Virtual Life in 3D Cities

9:30 **Martin Fellendorf, Inst. Strassen- und Verkehrswesen, TU
Graz, Graz/Austria**
Digital Terrain Models for Road Design and Traffic Simulation

10:00 **Martin Ritz, Fraunhofer Institute for Computer Graphics Re-
search IGD, Darmstadt/Germany**
CultLab3D – Fast and Economic, High Quality 3D Digitization
of Cultural Heritage Artifacts

10:30 Coffee Break

11:00 **Livio de Luca, CNRS (UMR MAP), Marseille/France**
3D Modeling and Semantic Enrichment in Cultural Heritage

11:30 **Marinos Ioannides, Cyprus Technical University, Limassol/
Cyprus**
From Point Clouds to Triangular Meshes

12:00 **Stephen Lawler, Microsoft, Redmond/USA**
3D Mapping and Photogrammetry

12:30 **Wrap-up, Music and Farewell Drink**

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

- A** Hexagon Geospatial Solutions Sensor Portfolio (**Hexagon**)
- B** Hexagon Geospatial Solutions (**Hexagon**)
- C** The Hexagon Cloud: A Dynamic Network of Content, Software and
Solutions (**Hexagon**)
- D** Connecting the Dots and Points in the Geospatial World (**Trimble**)
- E** IGI Mobile Data Acquisition Systems (**IGI**)
- F** UltraCam and UltraMap (**Vexcel Imaging/Microsoft**)
- G** Rising productivity with BAE Systems' GXP Xplorer® and SOCET
GXP®: SOCET SET® eclipsed (**BAE Systems**)
- H** VisionMap Sensors and Systems (**VisonMap**)