



Universität Stuttgart



Tutorial

*Excellence in
Photogrammetry -
From UAV Data Collection
and Data Processing to
Advanced 3D Modelling*

September 6th, 2015

Keplerstr. 17

*55th Photogrammetric
Week*

www.ifp.uni-stuttgart.de/phowo

Program

8⁰⁰ - 10⁰⁰ Registration

Excellence in Camera Calibration

Dieter Fritsch

10⁰⁰ - 11⁰⁰

- * Perspective and projective geometry
- * New models for camera calibration

11⁰⁰ - 11³⁰ Coffee Break

SfM and DIM for mobile mapping and UAS photogrammetry

Norbert Haala, Michael Cramer

11³⁰ - 12³⁰

- * Beyond standard airborne data collection – Challenges and chances using unconventional camera and block geometry
- * On the way to real-time mobile mapping
- * Geometry and more

12³⁰ - 14⁰⁰ Lunch Break

SURE – dense image matching for professional production

Mathias Rothermel, Konrad Wenzel

14⁰⁰ - 15⁰⁰

- * Approaches to challenges like water and sky scrapers
- * From elevation data to sharp True Orthos and 2.5D meshes
- * From depth maps to textured 3D surface meshes
- * Large scale distributed processing

15⁰⁰ – 15³⁰ Coffee Break

Point cloud processing and interpretation

Susanne Becker, Patrick Tutzauer

15³⁰ - 16³⁰

- * Semantic Interpretation
- * Exemplary Algorithms
- * Geometric Interpretation for Urban Modelling
- * Radiometric Information Exploitation
- * Hybrid Approaches

3D/4D Modelling for Cultural Heritage applications

Chance Coughenour, José Balsa

16³⁰ - 17³⁰

- * Improving iconographic interpretations with photogrammetry
- * 4D modelling of archaeological excavations
- * Crowdsourcing the preservation of lost heritage - Project Mosul
- * Main aspects related to the project 4D-CH-World

17³⁰ End

18⁰⁰ Icebreaker Party

The participation fee for the tutorial is 250 Euro. This also covers the lectures notes (hard- and softcopy).