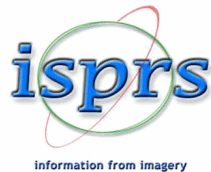


Symposium of ISPRS Commission III

Photogrammetric Computer Vision

PCV ' 06



Bonn, Germany
20 – 22 September 2006

Wednesday, 20. September 2006

8:30 **Opening of the Symposium**
Wolfgang Förstner, President of ISPRS Commission III, Germany

Welcome Note
Ian Dowman, President of ISPRS, UK

8:45 **Keynote**
Reinhard Klein, Computer Graphics Group, University of Bonn
Shape Detection in Point Clouds

9:35 **Session 1: Image Analysis**
Chair: Helmut Mayer

O1 *Matthias Butenuth*
Segmentation of Imagery Using Network Snakes

10:05 **Coffee break**

10:30 **Session 2: Building Extraction I**
Chair: George Vosselman

O2 *Martin Drauschke, Hanns-Florian Schuster, Wolfgang Förstner*
Detectability of Buildings in Aerial Images over Scale Space

O3 *Franz Rottensteiner*
Consistent Estimation of Building Parameters Considering
Geometric Regularities by Soft Constraints

O4 *Norbert Haala, Susanne Becker, Martin Kada*
Cell Decomposition for the Generation of Building Models at
Multiple Scales

12:00 **Lunch**

13:30 **Poster session 1**

P1 *Fayez Tarsha-Kurdi, Tania Landes, Pierre Grussenmeyer, Eddie Smigiel*
New Approach for Automatic Detection of Buildings in Airborne
Laser Scanner Data Using first Echo only

P2 *Lukas Zebedin, Andreas Klaus, Barbara Gruber, Konrad Karner*
Facade Reconstruction from Aerial Images by Multi-View Plane
Sweeping

P3 *Olaf Kähler, Joachim Denzler*
Detection of Planar Patches in Handheld Image Sequences

P4 *Matthias Heinrichs, Volker Rodehorst*
Trinocular Rectification for Various Camera Setups

P5 *Fabio Remondino*
Detectors and Descriptors for Photogrammetric Applications

P6 *Karin Hedman, Stefan Hinz, Uwe Stilla*
A Probabilistic Fusion Strategy Applied to Road Extraction from
Multi-Aspect SAR Data

P7 *Carles Matabosch, Elisabet Battle, David Fofi, Joaquim Salvi*
A Variant of Point-to-Plane Registration including Cycle
Minimization

P8
Miriam Rehor, Hans-Peter Bähr
Segmentation of Damaged Buildings from Laser Scanning Data

P10 *Jens Göpfert, Christian Heipke*
Assessment of Lidar DTM Accuracy in Coastal Vegetated Areas

15:30 **Coffee break**

16:00 **Session 3: Laser Range Data Analysis**
Chair: Claus Brenner

O5 *Hermann Gross, Ulrich Thoennessen*
Extraction of Lines from Laser Point Clouds

O6 *Sander Oude Elberink, George Vosselman*
Adding the Third Dimension to a Topographic Database Using
Airborne Laser Scanner Data

O7 *Camillo Ressel, Alexander Haring, Christian Briese, Franz Rottensteiner*
A Concept For Adaptive Mono-Plotting Using Images and
Laserscanner Data

O7 *Wolfgang von Hansen*
Robust Automatic Marker-free Registration of Terrestrial Scan Data
to 18:00

Thursday, 21. September 2006

8:30 **Session 4: Surface Reconstruction and Analysis**
Chair: Peter Sturm

O9 *Nicolas Champion, Didier Boldo*
A Robust Algorithm for Estimating Digital Terrain Models from Digital
Surface Models in Dense Urban Areas

O10 *Fabio Remondino, Li Zhang*
Surface Reconstruction Algorithms for Detailed Close-Range Object
Modeling

O11 *Pablo d'Angelo, Christian Wöhler*
Image-based 3D Surface Reconstruction by Combination of Sparse
Depth Data with Shape from Shading and Polarisation

10:00 **Coffee break**

10:30 **Session 5: Building Extraction II**
Chair: Franz Rottensteiner

O12 *Helmut Mayer, Sergiy Reznik*
MCMC Linked With Implicit Shape Models and Plane Sweeping for 3D
Building Facade Interpretation in Image Sequences

O13 *Laurence Boudet, Nicolas Paparoditis, Franck Jung, Gilles Martinoty, Marc Pierrot-Desseilligny*
A Supervised Classification Approach Towards Quality Self-Diagnosis
of 3D Building Models Using Digital Aerial Imagery

O14 *Mélanie Durupt, Franck Taillandier*
Automatic Building Reconstruction from a Digital Elevation Model and
Cadastral Data : An Operational Approach

12:00 **Lunch**

13:30 **Poster session 2**

- P11 *Jihye Park, Impyeong Lee, Yunsoo Choi, Young Jin Lee*
Automatic Extraction of Large Complex Buildings Using Lidar Data and Digital Maps
- P12 *Claus Brenner, Nora Ripperda*
Extraction of Facades using rjMCMC and Constraint Equations
- P13 *Eckart Michaelsen, Wolfgang von Hansen, Michael Kirchhof, Jochen Meidow, Uwe Stilla*
Estimating the Essential Matrix: GOODSAC versus RANSAC
- P14 *László Havasi, Tamás Szirányi*
Extraction of Horizontal Vanishing Line Using Shapes and Statistical Error Propagation
- P15 *Janet Heuwold*
Verification of a Methodology for the Automatic Scale-Dependent Adaptation of Object Models
- P16 *Yeh Fen Yang, Peter Lohmann, Christian Heipke*
Genetic Algorithms for the Unsupervised Classification of Satellite Images
- P17 *Uwe Soergel, Hermann Gross, Antje Thiele, Ulrich Thoennessen*
Extraction of Bridges over Water in Multi-Aspect High-Resolution InSAR Data
- P18 *Ilkka Korpela*
3D Treetop Positioning by Multiple Image Matching of Aerial Images in a 3D Search Volume
- P19 *Alexander Brzank and Christian Heipke*
Classification of Lidar Data into Water and Land Points in Coastal Areas
- P20 *Dominik Lenhart, Stefan Hinz*
Automatic Vehicle Tracking in Low Frame Rate Aerial Image Sequences

16:30 **Boat tour** (End approx. 21:00)

Friday, 22. September 2006

8:30 **Session 6: Road and Vehicle Extraction**
Chair: Stephan Heuel

- O15 *Helmut Mayer, Stefan Hinz, Uwe Bacher, Emmanuel Baltsavias*
A Test of Automatic Road Extraction Approaches
- O16 *Olivier Tournaire, Nicolas Paparoditis, Franck Jung, Bernard Cervelle*
3D Road-Mark Reconstruction from Multiple Calibrated Aerial Images
- O17 *Jens Leitloff, Stefan Hinz, Uwe Stilla*
Automatic Vehicle Detection in Satellite Images

10:00 **Coffee break**

10:30 **Session 7: Lidar and SAR Processing**
Chair Christian Heipke

- O18 *Josef Reitberger, Peter Krzystek, Uwe Stilla*
Analysis of Full Waveform Lidar Data for Tree Species Classification
- O19 *Boris Jutzi, Uwe Stilla*
Precise Range Estimation on Known Surfaces by Analysis of Full-Waveform Laser
- O20 *Franz Meyer, Stefan Hinz, Andreas Laika, Steffen Suchandt, Richard Bamler*
Performance Analysis of Spaceborne SAR Vehicle Detection and Velocity Estimation

12:00 **Lunch**

13:30 **Session 8: Image Orientation**
Chair: Volker Rodehorst

- O21 *Fabio Remondino, Camillo Ressi*
Overview and Experiences in Automated Markerless Image Orientation
- O22 *Ilias Kalisperakis, George Karras, Lazaros Grammatikopoulos*
3D Aspects of 2D Epipolar Geometry
- O23 *Justin Domke, Yiannis Aloimonos*
A Probabilistic Notion of Camera Geometry: Calibrated vs. Uncalibrated
- O24 *Chris Engels, Henrik Stewénius, David Nistér*
Bundle Adjustment Rules

15:30 **Coffee break**

15:50 **Best Paper Award**

Wolfgang Förstner, President of ISPRS Commission III, Germany

Note of ISPRS Secretary General

Orhan Altan, Istanbul Technical University, Turkey

Announcement of ISPRS Congress 2008

Chen Jun, National Geomatics Center of China

Closing of the Symposium

Wolfgang Förstner, President of ISPRS Commission III, Germany

16:30 **End of the Symposium**

Program Chairs

Wolfgang Förstner
Helmut Mayer

Financial Chair

Heiko Ellenbeck

Local Arrangements

Heidi Hollander
Monika Tüttenberg

Technical Committee

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Bernhard Weber

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