PROGRAM: MONDAY 22nd OCTOBER 2001

8:00 – 9:00	**Registration**	(Governor Calvert House Conference Center, Historic Inns of Annapolis)
9:00	**Welcome note**	

9:15 – 12:10 SESSION 1: System Overviews
Chair: J. Bryan Blair (NASA/Goddard Space Flight Center, USA)

9:15 – 9:45	**Lidar Activities and Research Priorities in the Commercial Sector** *(invited)* *M. Flood*
9:45 – 10:15	**The Vegetation Canopy Lidar (VCL) Mission** *(invited)* *R. Dubayah*
10:15 – 10:45	**The ICESAT Mission** *(invited)* *J. Zwally et al.*
10:45 – 11:00	BREAK
11:00 – 11:20	**Design and Performance of an Airborne Multikilohertz Photon-Counting Microlaser Altimeter** *J. Degnan, J. McGarry, T. Zagwodzki, P. Dabney, J. Geiger, R. Chabot, C. Steggerda, J. Marzouk and A. Chu*
11:20 – 11:50	**Optech's View on Future Directions for Commerical Scanning Laser Systems** *(invited)* *D. Carswell*
11:50 – 12:10	**Wide-Swath Imaging Lidar Development for Air and Spaceborne Applications** *J. B. Blair, S. Luthcke and M. Hofton*
12:10	LUNCH

14:00 – 17:10 SESSION 2: Surface Reconstruction I
Chair: George Vosselman (Delft University of Technology, The Netherlands)

14:00 – 14:30	**Advanced DTM Generation from Lidar Data *(invited)*** *K. Kraus and N. Pfeifer*
14:30 – 14:50	**Creation of High Resolution, Precise Digital Elevation Models (DEM) of Ocean City and Assateague Island, MD** *B. Csatho, Y.-R. Lee, T. Schenk, W. Krabill, and J. McGarry*
14:50 – 15:10	**3D Building Model Reconstruction from Point Clouds and Ground Plans** *G. Vosselman*
15:10 – 15:30	**Reconstructing Textured CAD Model of Urban environment Using Vehicle-borne Laser Range Scanner and Line Camera** *H. Zhao and R. Shibasaki*
15:30 – 15:50	BREAK
15:50 – 16:10	**Scanline Forced Delauney-TENs for Surface Representation** *E. Verbree and P.J. van Oosterom*
16:10 – 16:30	**On the Use of Pulse Reflectance Data for Laserscanner Strip Adjustment** *H.-G. Maas*
16:30 – 16:50	**3D Perceptual Organization From Laser Altimetry Data** *I. Lee and T. Schenk*
16:50 – 17:10	**Comparing Probabilistic and Geometric Models on Lidar Data** *R. Fraile and S. Maybank*

17:10 – 17:30	DISCUSSION
18:30	ICEBREAKER

PROGRAM: TUESDAY 23rd OCTOBER 2001

8:30 – 9:00 **Registration**

9:00 – 11:00 SESSION 3: Data Geolocation
Chair: Toni Schenk (The Ohio State University, USA)

9:00 – 9:30 **Aspects of Processing Extra-terrestrial Lidar Data: Clementine, NEAR, MOLA** *(invited)*
G. A. Neumann

9:30 – 9:50 **Spaceborne laser Altimeter Instrument Parameter Calibration from Integrated Residual Analysis**
S. Luthcke, D. Rowlands and C. Carabajal

9:50 – 10:10 **Determining the Mounting Bias of a Laser Altimeter System by a Hough Transformation Approach**
T. Schenk

10:10 – 10:40 **Simultaneous Determination of Calibration Parameters for an Airborne Lidar System** (*invited)*
A. Borsa

10:40 – 11:00 **Recovery of Systematic Biases in Laser Altimeters Using Natural Surfaces**
S. Filin

11:00 – 11:15 BREAK

11:15 – 12:15 SESSION 4: Data Fusion
Chair: J.-Bernard Minster (University of California, San Diego, USA)

11:15 – 11:35 **Integration of Lidar and Landsat ETM Data**
A. T. Hudak, M. A. Lefsky, and W. B. Cohen

11:35 – 11:55 **High Resolution Surface Geometry and Albedo by Combining Laser Altimetry and Visible Images**
R. D. Morris, U. von Toussaint and P. C. Cheeseman

11:55 – 12:15 **Accuracy Study of Airborne Laser Scanning Data with Photogrammetry**
S. Seo, T. Schenk and B. Csathó

12:15 LUNCH

14:00 – 15:00 SESSION 5: Data Modeling
Chair: Michelle Hofton (University of Maryland, College Park, USA)

14:00 – 14:20 **Modeling Lidar Waveforms in Heterogeneous and Discrete Canopies**
W. Ni-Meister and R. Dubayah

14:20 – 14:40 **Modeling Lidar Waveforms Using a Radiative Transfer Model**
B. Peterson, W. Ni, B. Blair, M. Hofton, P. Hyde, and R. Dubayah

14:40 – 15:00 **Evaluation of Geoscience Laser Altimeter System (GLAS) Waveforms For Vegetated Landscapes Using Airborne Laser Altimeter Scanning Data**
C. C. Carabajal and D. J. Harding

15:00 – 15:20 BREAK

15:20 – 17:10	**SESSION 6: Forestry Applications** **Chair: Michelle Hofton (University of Maryland, College Park, USA)**
15:20 – 15:40	**Measuring Forest Canopy Height Using a Combination of Lidar and Aerial Photography Data** *B. A. St-Onge and N. Achaichia*
15:40 – 16:00	**Investigation of Measuring Accuracy of Forest Area by Means of Airborne Laser Scanner** *M. Funahashi, M. Setojima, Y. Akamatsu, Y. Imai, M. Amano, T. Katsuki, M. Takahashi, and M. Fukuda*
16:00 – 16:30	**Relationships Between Lidar Metrics and Above-Ground Biomass in Closed-Canopy Neotropical Forests** *(invited)* *J. Drake, R. Dubayah, R. Knox, and R. Condit*
16:30 – 16:50	**Lidar Remote Sensing of Aboveground Biomass in Three Biomes** *M. A. Lefsky, W. B. Cohen, D. J. Harding, G. G. Parker, S. A. Acker, and S. T. Gower*
16:50 – 17:10	**Characterization of Canopy Height with Proximity to Streams and Slope Using Lidar** *D. Gillespie, R. Dubayah, M. Hofton*
16:50 – 17:30	DISCUSSION
17:30	END

PROGRAM: WEDNESDAY 24th OCTOBER 2001

8:30 – 9:00 **Registration**

9:00 – 12:15 SESSION 7: Mapping Geosurficial Processes
Chair: Beáta Csathó (The Ohio State University, USA)

9:00 – 9:30 **Analysis of a Data Set for ICESat Cal/Val**
W. B. Krabill, S Manizade, C Martin, J Sonntag, R Swift, and J Yungel

9:30 – 9:50 **Laser Monitoring of Ice Elevations and Sea-Ice Thickness in Greenland**
R. Forsberg, K. Keller and S. M. Jacobsen

9:50 – 10:10 **Quantifying River Bank Erosion With Scanning Laser Altimetry**
D. Thoma, S. C. Gupta and M. E. Bauer

10:10 – 10:30 **Landslide Delineation Using Airborne Laser Swath Mapping**
V. R. Schaefer, S. Burckhard, D. Bloomquist and R. L. Shrestha

10:30 – 10:45 BREAK

10:45 – 11:05 **Mapping the Surface of Sheet Flow Water in the Everglades**
W. E. Carter, R. L. Shrestha, D. Bloomquist, and M. Sartori

11:05 – 11:25 **Laser Pulse Correlation: A Method For Detecting Subtle Topographic Change Using Lidar Return Waveforms**
M. Hofton and J. B. Blair

11:25 – 11:55 **Precise Airborne lidar surveying for Coastal Research and Geo-Hazards Applications**
R. Gutierrez, J. Gibeaut, R. Smyth, T. Hepner, J. Andrews, C. Weed, W. Gutelius, and M. Mastin

11:55 – 12:15 **Use of LIDAR and Other Geospatial Technologies in Support of Rescue and Recovery at the World Trade Center**
W. Decker

12:15 LUNCH

14:00 – 16:20 SESSION 8: Surface Reconstruction II
Chair: Hans-Gerd Maas (Dresden University of Technology, Germany)

14:00 – 14:20 **Digital Terrain Models in dense urban areas**
F. Dell'Acqua, and P. Gamba

14:20 – 14:40 **Filtering of Laser Altimetric Digital Surface Models**
A. Koch, K. Jacobsen, and P. Lohmann

14:40 – 15:00 **Filtering of Laser Altimetry Data Using a Slope Adaptive Filter**
G. Sithole

15:00 – 15:20 **Some Algorithms for Virtual Deforestation (VDF) of LIDAR Topographic Survey Data**
R. A. Haugerud and D. J. Harding

15:20 – 15:40 BREAK

15:40 – 16:00 **Terrain Modelling and Analysis Using Laser Scanner Data**
M. Elmqvist, E. Jungert, F. Lantz, Å. Persson, and U. Söderman

16:00 – 16:20 **Airborne Laser Scanning – Clustering in Raw Data**
M. Roggero

16:20 – 16:40 **Wavelet-based Algorithm in Segmentation of Airborne Laser Scanner Data**
M. Tokunaga and T.T. Vu

16:40 – 17:30 DISCUSSION

17:30 CLOSING REMARKS

PRESENTATION INFORMATION

- Contributed papers are allotted 15 minutes for presentation, and 5 minutes for discussion and change over. Invited papers have 25 minutes for the presentation.
- Be considerate of the other speakers and the audience by staying within your allotted time.
- The meeting room will be equipped with two slide projectors, two overhead (viewgraph) projectors, an electric pointer, and two screens. A VGA video/data projector will also be available.
- If you would like to preview your viewgraphs, you may use the meeting room before 8:30AM or during the lunch breaks.

Questions? Contact the Workshop Organizing Committee

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