



5th International 3D Geoinfo Conference November 3-4, 2010 + "Scientific Brunch" on Friday, 5th Berlin, Germany

Conference Program

Deutsche Oper Berlin



The Social Event will take place at Deutsche Oper Berlin. It will be a combination of a visit of Walter Braunfels's opera "Joan of Arc - Scenes from the Life of St. Joan" and the Conference Dinner.

Technische Universität Berlin - Main Building



The conference will take place at the historical part of the main building of the Technische Universität Berlin. The heart of the old building is the impressive hall "Lichthof", surrounded by the conference rooms

Jointly organised by ISPRS WG IV/8, OGC, EuroSDR, DGPF, and Technische Universität Berlin

Sponsors.



Local Contacts.

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In case of questions, please contact 3dgeoinfo@igg.tu-berlin.de

For further information, please consult the conference website:

www.3dgeoinfo.org



Day 1 - Tuesday 2nd November

18:00 – 22:00 **Icebreaker Party and Registration at the Geodätenstand**

Day 2 - Wednesday 3rd November

08:00 – 09:00 **Registration (in front of H1035)**

09:00 – 09:30 **Opening Plenary and Welcome Addresses**

09:30 – 10:00
H1058 *“Earth System Modelling - A new Challenge for Geoinformatics?”*
Keynote Speech by Prof. Dr. Maik Thomas, Helmholtz Centre Geoforschungszentrum Potsdam, Germany

10:00 – 10:30 Session I: **Energy Assessment with 3D City Models**
Chair: **Sisi Zlatanova**
Dynamic Features in a 3D City Model as an Energy System
Wan Wen, Erik Kjems, **Lars Bodum**, Jan Kolar
Centre for 3D GeoInformation, Aalborg University, Denmark

H1058 **Estimation of the Energetic Rehabilitation State of Buildings for the City of Berlin Using a 3D City Model Represented in CityGML**
Daniel Carrión, Alexandra Lorenz, Thomas H. Kolbe
Technische Universität Berlin, Germany

10:30 – 11:00 **Coffee Break (H1035, Lichthof)**

11:00 – 12:15 Session II: **3D Spatial and Semantic Building Modelling**
Chair: **Eliseo Clementini**
Rapid Modelling of Complex Building Interiors
Pawel Boguslawski, Christopher Gold
University of Glamorgan, United Kingdom

Integration of BIM and GIS: The Development of the CityGML GeoBIM Extension
Léon van Berlo, Ruben de Laat
Netherlands organisation for applied scientific research, The Netherlands

H1058 **Towards Interoperating CityGML and IFC Building Models: A Unified Model Based Approach**
Mohamed Sobih El-Mekawy, Anders Östman, Khurram Shahzad
Royal Institute of Technology - KTH, Sweden

From GIS to BIM and Back Again – A Spatial Query Language for 3D Building Models and 3D City Models
Andre Borrmann
Technische Universität München, Germany

12:15 – 12:35 Industry: **Short Presentations (H1058)**

12:35 – 13:30
H1035 / Lichthof **Lunch Break** **Company Presentation by CPA Systems GmbH**
Company Presentation by con terra GmbH
Location: Lichthof

13:30 – 14:40 Session III: **3D Data Acquisition, Management and Processing**
Chair: **Jacynthe Pouliot**
An Integrated Framework for Reconstructing Full 3D Building Models
Langyue Wang, Gunho Sohn
York University, Canada

Large Scale Constraint Delaunay Triangulation for Virtual Globe Rendering
Martin Christen, Stephan Nebiker
University of Applied Sciences, Northwestern Switzerland

H1058 **A New Method for Interfacing 3D Simulation Systems and Object-Oriented Geo Data Sources**
Martin Hoppen, Jürgen Rossmann, Michael Schluse, Ralf Waspe
RWTH Aachen University, Germany

Developing a Framework for Malaysian 3D SDI
Alias Abdul-Rahman, Behnam Alizadehshrafi, Volker Coors
Universiti Teknologi Malaysia, Malaysia

14:40 – 15:00 Poster I: **Short Presentations (H1058)**

15:00 – 15:30 **Coffee Break** **Company Presentation by Galdos Systems Inc.**
Location: Lichthof

15:30 – 16:30 Session IV: **3D Geo-Visualisation**
Chair: **Stephan Nebiker**

Depth Perception in Virtual Reality
Anja Matatko, Jürgen Bollmann, Andreas Müller
University of Trier, Germany

Towards Semantic 3D City Modeling and Visual Explorations
Qing Zhu, Junqiao Zhao, Zhiqiang Du, Yeting Zhang, Weiping Xu, Xiao Xie, Yulin Ding, Fei Wang, Tingsong Wang
Wuhan University, China

H1058 **Interactive Rendering Techniques for Highlighting in 3D Geovirtual Environments**
Matthias Trapp, Christian Beesk, Sebastian Pasewaldt, Jürgen Döllner
University of Potsdam, Germany

16:30 – 18:00 **Break**

18:00 – 24:00 **Social Event at Deutsche Oper Berlin**

Day 3 - Thursday 4th November

08:00 – 09:00 **Registration (in front of H1035)**

09:00 – 09:30
H1058 *“Collaboration and Publishing of Urban 3D City Models”*
Keynote Speech by Ron Lake, Chairman and CEO of Galdos Systems Inc., Canada

09:30 – 10:25 Session V: **Enriching 3D City Models**
Chair: **Alias Abdul Rahman**
A Concept for Assignment of Textures to Partially Occluded Faces of 3D City Models Stored in CityGML
Dorota Iwaszczuk, Uwe Stilla
Technische Universität München, Germany

Integrated 3D Modeling of Multi-Utility Networks and their Interdependencies for Critical Infrastructure Analysis
Thomas Becker, Claus Nagel, Thomas H. Kolbe
Technische Universität Berlin, Germany

H1058 **Initial Investigation for Modeling Interior Utilities within 3D Geo Context: Transforming IFC-Interior Utility to CityGML/UtilityNetworkADE**
Ihab Hijazi, Manfred Ehlers, Sisi Zlatanova, Thomas Becker, Léon van Berlo
University of Osnabrück, Germany

10:25 – 10:30 Poster II: **Short Presentations (H1058)**

10:30 – 11:00 **Coffee Break** **Company Presentation by SARL Rhino Terrain**
Location: Lichthof

11:00 – 12:15 Session VI: **3D / 4D Spatial Modelling Concepts**
Chair: **Lars Bodum**
Integrated Representation of (Potentially Unbounded) 2D and 3D Spatial Objects for Rigorously Correct Query and Manipulation
Rodney James Thompson, **Peter van Oosterom**
Delft University of Technology, The Netherlands

Modeling Space by Stereographic Rejection
Pim Bil
Gemeente Amstelveen, The Netherlands

H1058 **Modelling Three-dimensional Geoscientific Datasets with the Discrete Voronoi Diagram**
Tom van der Putte, **Hugo Ledoux**
Delft University of Technology, The Netherlands

Delaunay Tetrahedralizations - Honor Degenerated Cases
Edward Verbree
Delft University of Technology, The Netherlands

12:15 – 12:35 Poster III: **Short Presentations (H1058)**

12:35 – 13:30 **Lunch Break** **Company Presentation by virtualcitySystems GmbH**
Location: Lichthof
Company Presentation by GTA Geoinformatik GmbH
Location: Lichthof

13:30 – 14:50 Session VII: **Analysis of 3D Geospatial Information**
Chair: **Peter van Oosterom**
3D Modeling for Mobile Augmented Reality in Unprepared Environment
Vincent Thomas, Sylvie Daniel, Jacynthe Pouliot
Laval University, Canada

Enriching a 3D World with Synthetic and Visible Information about the Distribution of Points of Interest
Mickaël Brasebin, Bénédicte Bucher, Charlotte Hoarau
Institut Géographique National, Laboratoire COGIT, France

Automatic Landmark Detection for 3D Urban Models
Julia Ganitseva, Volker Coors
Blom Romania SRL, Romania

H1058 **BIM For Geo-Analysis (BIM4GEOA): Set Up of 3D Information System with Open Source Software and Open Specification (OS)**
Ihab Hijazi, Manfred Ehlers, Sisi Zlatanova
University of Osnabrück, Germany

Towards an Automated Healing of 3D Urban Models
Jürgen Bogdahn, **Volker Coors**
Hochschule für Technik Stuttgart, Germany

14:50 – 15:00 Poster V: **Short Presentations (H1058)**

15:00 – 15:30 **Coffee Break (H1058)**

15:30 – 17:00 Session VIII: **3D Urban Modelling and Applications**
Chair: **Jiyeong Lee**

Challenges in 3D Geo Information and Participatory Design and Decision
Jan B.F. Van Erp, **Anita H.M. Cremers**, Judith M. Kessens
TNO Human Factors, The Netherlands

Concept for Building Licensing Based on Standardised 3D Geo Information
Joachim Benner, Karl-Heinz Häfele, Andreas Geiger
Karlsruhe Institute of Technology, Germany

H1058 **Towards a 3D Geo-Information Standard in the Netherlands**
Jantien Stoter, Marcel Reuvers, George Vosselman, Joris Goos, Leon van Berlo, Sisi Zlatanova, Edward Verbree, Rick Klooster
Delft University of Technology, The Netherlands

3D Cadastre in the Province of Quebec: A First Experiment for the Construction of a Volumetric Representation
Jacynthe Pouliot, Tania Roy, Guillaume Fouquet-Asselin, Joanie Desgroseilliers
Laval University, Canada

Interactive Urban and Forest Fire Simulation with Extinguishment Support
Aitor Moreno, **Álvaro Segura**, Anis Korchi, Jorge Posada, Oihana Otaegui
Vicomtech, Spain

17:00 – 17:30 **Closing Plenary (H1058)**

Day 4 - Friday 5th November

10:00 – 14:00 **Geodätenstand** **Scientific Brunch**
Introduction by Thomas H. Kolbe

The coffee breaks, lunch breaks, as well as company presentations are located at room H 1035 and the “Lichthof”.