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# Web3D 2006

## The 11th International Symposium on 3D Web Technology

April 18-21, 2006  
Columbia, Maryland  
www.web3d2006.org

Sponsored by ACM SIGGRAPH

In cooperation with the Web3D Consortium and Eurographics

Eleventh in the series, the 2006 International Web3D Symposium will address a wide range of 3D technologies on the Internet, ranging from languages, tools and high performance 3D graphics to human-computer interaction issues and the latest mobile applications. The annual Web3D Symposium is a major event which unites researchers, developers, experimenters, and content creators in a dynamic learning environment. Attendees share and explore methods of using, enhancing, or creating new 3D Web technology, such as X3D, VRML, MPEG4, OpenHSF, and Java3D. Topics of interest include but are not limited to:

- 3D graphics for wireless PDAs and cellular phones.
- Animated humanoids and complex reactive characters.
- Computer Aided Design (CAD) technology and methods for lossless cross-application data exchange.
- Geometry/object behaviors in Web3D settings.
- High-performance 3D graphics for distributed environments and tele-operation systems.
- Innovative user-interface paradigms for navigating real-time 3D graphics environments and Web3D worlds.
- Interaction methods for Web-based 3D graphics systems.
- Methods for designing, representing, interacting with, and visualizing complex geometry, structure and behaviors.
- Multimodal user interaction in Web3D worlds.
- Web3D content for medical education, training and simulation.
- Innovative applications using 3D graphics on the Web and on mobile devices.
- Integration and interoperation with other XML-based Web standards



## Preliminary Program

### Tuesday, April 18

Tutorial 1: X3D Language Features

Tutorial 2: X3D content design

Tutorial 3: H-Anim

Tutorial 4: Geospatial Web3D

### Wednesday, April 19

Tutorial 5: Med X3D

Paper Session 1: Mobile Devices

Panel: Web3D in Archeology (simulcast w/ NDSU)

Reception Banquet

### Thursday, April 20

Paper Session 2: Visualization and Streaming

Paper Session 3: Integration and Interoperation

Paper Session 4: Modeling and Rendering

BOFs / WG meetings  
Web3D Showcase

### Friday, April 21

Paper Session 5: Modeling and Rendering

Paper Session 6: Applications  
BOFs / WG meetings



## Web3D 2006. Technical Sessions

### Paper Session 1 - Mobile Devices

1. m-LOMA - a Mobile 3D City Map  
Antti Nurminen (Full paper)
2. Rendering of X3D Content on Mobile Devices with OpenGL ES  
Daniele Nadalutti, Luca Chittaro, Fabio Buttussi (Full paper)
3. Using Expressive Rendering for Remote Visualization of Large City Models  
Jean-Charles Quillet, Gwenola Thomas, Xavier Granier, Jean-Eudes Marvie (Full paper)

### Session 2 - Visualization and Streaming

1. Integrating Web 2D and 3D Technologies for Architectural Visualization: Applications of SVG and X3D/VRML in Environmental Behavior Simulation  
Wei Yan (Full paper)
2. Collaboration by Illustration: Real-Time Visualization in Web3D  
Frank Goetz, Gitta Domik, Bernd Essmann, Thorsten Hampel (Full paper)
3. A Case for 3D Streaming on Peer-to-Peer Networks  
Shun-Yun Hu (Full paper)

### Session 3 - Integration and Interoperation

1. An MPEG-7 framework enhancing the reuse of 3D models  
Ioan Marius Bilasco, Jérôme Gensel, Marlène Villanova-Oliver, Hervé Martin (Full paper)
2. Using the Amacont Architecture for Flexible Adaptation of 3D Web Applications  
Raimund Dachsel, Michael Hinz, Stefan Pietschmann (Full paper)
3. Semantic Description of 3D Environments: a Proposal Based on Web Standards  
Fabio Pittarello, Alessandro De Faveri (Full paper)

### Session 4 - Modeling and Rendering #1

1. Using Aspect Oriented Methods to Add Behaviour to X3D Documents  
Benjamin Mesing, Carsten Hellmich (Full paper)
2. H-Animator: A Visual Tool for Modeling, Reuse and Sharing of X3D Humanoid Animations  
Fabio Buttussi, Luca Chittaro, Daniele Nadalutti (Full paper)
3. Linear Filters - Animating Objects in a Flexible and Pleasing Way  
Herbert Stocker (Full paper)

### Session 5 - Modeling and Rendering #2

1. Function-based Shape Modeling and Visualization in X3D  
Qi Liu, Alexei Sourin (Full paper)
2. SSIML/Components: A Visual Language for the Abstract Specification of 3D Components  
Arnd Vitzthum (Full paper)
3. An Approach to Formal Modeling of User Interactions Based on X3D Content  
Jianghui Ying (Short paper)

### Session 6 - Applications

1. Web-based 3D Planning Tool for Radiation Therapy Treatment  
Felix Hamza-Lup, Larry Davis, Omar Zeidan (Short paper)
2. Using VRML to Share Large Volumes of Complex 3D Geoscientific Information via the Web
3. David Beard (Short paper)