



**Symposium on  
Geometry Processing**

Copenhagen, Denmark  
July 2-4, 2008

**Wednesday 2 July**

1000 Opening  
1015 KEYNOTE: Chris Williams  
1115 Coffee  
1130 TETRAHEDRA  
1230 Lunch  
1330 SHAPE PROPERTIES: LOCAL AND GLOBAL  
1500 Coffee  
1530 SMOOTH SURFACES  
1700 Posters  
1830 Reception at the Scroll Bar

**Thursday 3 July**

0915 KEYNOTE: Michael Floater  
1015 Coffee  
1030 SAMPLING AND RECONSTRUCTING SURFACES  
1200 Lunch  
1300 REGISTERING DEFORMING SURFACES I  
1430 Coffee  
1500 REGISTERING DEFORMING SURFACES II  
1630 End of sessions  
1900 Exhibition at the Danish Design Center  
2000 Dinner at the Danish Design Center

**Friday 4 July**

0915 THE INDUSTRY SPEAKS: Charles Loop,  
Rasmus Tamstorf, Rune Fisker, Raphaël Marc  
1045 Coffee  
1100 PARAMETERIZATION AND QUAD TILING  
1230 Lunch  
1330 BASES AND COORDINATES  
1500 Closing  
1530 Conference ends

## PAPERS

### **Tetrahedra**

*Hierarchical Convex Approximation of 3D Shapes for Fast Region Selection*

Marco Attene, Michela Mortara, Michela Spagnuolo, and Bianca Falcidieno

*Discrete Distortion in Triangulated 3-Manifolds*

Mohammed Mostefa Mesmoudi, Leila De Floriani, and Umberto Port

### **Shape Properties: Local and Global**

*Global Intrinsic Symmetries of Shapes*

Maks Ovsjanikov, Jian Sun, and Leonidas Guibas

*A Hierarchical Segmentation of Articulated Bodies*

Fernando de Goes, Siome Goldenstein, and Luiz Velho

*A Smart Stochastic Approach for Manifolds Smoothing*

Ahmed Fouad El Ouafdi, Djemel Ziou, and Hamid Krim

### **Smooth Surfaces**

*Fast Parallel Construction of Smooth Surfaces from Meshes with Tri/Quad/Pent Facets*

Ashish Myles, Tianyun Ni, and Jorg Peters

*G2 Tensor Product Splines over Extraordinary Vertices*

Charles Loop and Scott Schaefer

*Fitting Sharp Features with Loop Subdivision Surfaces*

Ruotian Ling, Wenping Wang, and Dongming Yan

### **Sampling and Reconstructing Surfaces**

*Surface Sampling and the Intrinsic Voronoi Diagram*

Ramsay Dyer, Hao Zhang, and Torsten Möller

*Provably Good 2D Shape Reconstruction from Unorganized Cross-Sections*

Pooran Memari and Jean-Daniel Boissonnat

*Streaming Surface Reconstruction Using Wavelets*

Josiah Manson, Guergana Petrova, and Scott Schaefer

### **Registering Deforming Surfaces I**

*Global Correspondence Optimization for Non-Rigid Registration of Depth Scans*

Hao Li, Robert W. Sumner, and Mark Pauly

*Deformation-Driven Shape Correspondence*

Hao Zhang, Alla Sheffer, Daniel Cohen-Or, Qingnan Zhou, Oliver van Kaick, and Andrea Tagliasacchi

*Dental Inlay and Onlay Construction by Iterative Laplacian Surface Editing*

Tillmann Steinbrecher and Maik Gerth

### **Registering Deforming Surfaces II**

*Non-Rigid Registration Under Isometric Deformations*

Qixing Huang, Bart Adams, Martin Wicke, and Leonidas J. Guibas

*Automatic Registration for Articulated Shapes*

Will Chang and Matthias Zwicker

*Reconstructing Animated Meshes from Time-Varying Point Clouds*

Jochen Süßmuth, Marco Winter, and Günther Greiner

### **Parameterization and Quad Tiling**

*Motorcycle Graphs: Canonical Quad Mesh Partitioning*

David Eppstein, Michael T. Goodrich, Ethan Kim, and Rasmus Tamstorf

*Spectral Conformal Parameterization*

Patrick Mullen, Yiyang Tong, Pierre Alliez, and Mathieu Desbrun

*A Local/ Global Approach to Mesh Parameterization*

Ligang Liu, Lei Zhang, Yin Xu, Craig Gotsman, and Steven J. Gortler

### **Bases and Coordinates**

*Pointwise Radial Minimization: Hermite Interpolation on Arbitrary Domains*

Michael S. Floater and Christian Schulz

*Maximum Entropy Coordinates for Arbitrary Polytopes*

Kai Hormann and N. Sukumar

*Polyhedral Finite Elements Using Harmonic Basis Functions*

Sebastian Martin, Peter Kaufmann, Mario Botsch, Martin Wicke, and Markus Gross

## POSTERS

1. *Segmentation of Articulated Models from a Single Pose*  
Qi-xing Huang, Martin Wicke, Bart Adams and Leonidas J. Guibas

2. *On a connection between the use of Persistent Topology for Shape Matching and the Gromov-Hausdorff distance*  
Facundo Memoli

3. *Editing the LOD of Meshes with Interpolatory Adaptive Subdivisions*  
Enrico Puppo, Daniele Panozzo

4. *Aligned Characteristic Curves for Surface Fairing*  
J. Martinez Esturo, C. Rössl, and H. Theisel

5. *Discrete Curvature Flow for Hyperbolic 3-Manifolds with Complete Geodesic Boundaries*  
Xiaotian Yin, Miao Jin, Feng Luo, Xianfeng Gu

6. *Slippage Features*  
Martin Bokeloh, Alexander Berner, Michael Wand, Hans-Peter Seidel, Andreas Schilling

7. *Patch Layout from Feature Graph*  
M.Nieser, K.Polthier, C.Schulz

8. *GPU-assisted Surface Reconstruction on Locally-uniform Samples*  
Yong Joo Kil and Nina Amenta.

9. *On Manifold Learning and Mesh Editing*  
Raif M. Rustamov

10. *Markov Random Field Surface Reconstruction*  
Rasmus R. Paulsen, Jakob Andreas Bærentzen, and Rasmus Larsen

11. *Harmonic Volumetric Parameterization Using Green's Functions on Star Shapes*  
Ying He, Xiaotian Yin, Feng Luo, Xianfeng Gu

12. *Online Triangulation of Laserscan Data*  
Lehner, Burkhard, Klaus Denker, Georg Umlauf

13. *Out-of-Core Progressive Compression and Selective Decompression of Large Triangle Meshes*  
Zhiyan Du, Pavel Jaromersky, Yi-Jen Chiang, Nasir Memon