

Dr. Hongxin Zhang

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Education

06/1998-06/2002 Ph.D Student
Advisor: Prof. Guojin Wang
Department of Applied Mathematics, Zhejiang University,
P.R.China

09/1997-07/1998 Graduate Student
Advisor: Prof. Guojin Wang
Department of Applied Mathematics, Zhejiang University,
P.R.China

09/1993-07/1997 Bachelor Student
Department of Applied Mathematics, Zhejiang University,
P.R.China

R&D

12/2003-present Assistant Professor
State Key Lab of CAD&CG, Zhejiang University, P.R.China

12/2004-06/2005 Visiting Researcher
Computer Graphics Group, RWTH-Aachen, Germany.

10/2002-10/2003 Research Associate
Vision and Computer Graphics Group, HKUST, Hong Kong SAR.

07/2001-11/2001 Visiting Student/Internship
Visual Computing Group, MSRA, Beijing

05/1999-05/2001 Software Engineer and Project Manager
www.socix.com and www.transtep.com

Research Interests

- Geometry computing and cognition.
- Visual Computing and rendering techniques.

Qualifications

- Programming Language: C, C++, Matlab
- Tools: Visual C++/GNU C++, Programmable Shading Language.
- Familiar with Subdivision Surfaces, Digital geometry processing, Visualization, Game Graphics, Programmable graphics hardware.
- Fair in English Communication.

Awards

- Best Paper Awards of Chinagraph 2004. Xi'an, September, 2004.

Courses

- Applied mathematics in Computer Science. Graduate course, Spring. 2005

Projects

- "Comprehensive Representation and Efficient Modeling of

Virtual Environments", supported by the Projects of Development Plan of the State Key Fundamental Research (973 Project) under Grant No. 2002CB312101 (2003.1 - 2007.12). Major participant. (RMB 500K)

Publications

2005

- [1]. Dong Xu, **Hongxin Zhang**, Qing Wang, and Hujun Bao. Poisson shape interpolation. Symposium on Solid and Physical Modeling 2005: 267-274
- [2]. Ying Tang, **Hongxin Zhang**, Qing Wang, and Hujun Bao. Importance-Driven Texture Encoding Based on Samples. Computer Graphics International 2005.
- [3]. **Hongxin Zhang**, Ying Tang, Zhihua Zhang, and Hujun Bao. Texture mapping based on Bernoulli embedding model. 1st Korea-China Joint Conference on Geometric and Visual Computing.

2004

- [1]. Chiew-Lan Tai, **Hongxin Zhang**, and Chun-Kin Fong. Prototype modeling from sketched silhouettes based on convolution surfaces. Computer Graphics Forum. 2004.
- [2]. Hongbo Fu, Chiew-Lan Tai, and **Hongxin Zhang**. Topology-free cut-and-paste editing over meshes. Geometric Modeling and Processing, Beijing, April 13-15, 2004. IEEE Computer Society Press. (GMP 2004)
- [3]. Wei Chen, Huageng Wan, **Hongxin Zhang**, Hujun Bao, and Qunsheng Peng. Interactive Collision Detection for Complex and Deformable Models using Programmable Graphics Hardware, To appear in ACM Symposium on Virtual Reality Software and Technology (VRST) 2004.
- [4]. Zhao Dong, Wei Chen, Hujun Bao, **Hongxin Zhang**, and Qunsheng Peng. Real-time Voxelization for Complex Polygonal Models, In Proceedings of the 12th Pacific Conference on Computer Graphics and Applications (Pacific Graphics 2004).
- [5]. **Hongxin Zhang**, Guojin Wang. Analytical properties of semi-stationary subdivision schemes. Geometric Computation (edited by Falai Chen and Dongming Wang), Chapter 7, pages 191-208. World Scientific Publishing Co., Singapore New Jersey.
- [6]. Xiangyang Wu, Qunshen Peng, **Hongxin Zhang**, Wei Chen, and Gang Liu. Real-time Global Relighting (in Chinese). Chinagraph 2004,

Journal of Software. Best paper award.

- [7]. Xiangjun Zhao, **Hongxin Zhang**, Kun Zhou, and Hujun Bao. Mesh Editing Based on Geometry Signal Spectrum Analysis (in Chinese). Chinagraph 2004.
- [8]. Ying Tang, Hanqiu Sun, **Hongxin Zhang**, and Hujun Bao. Texture Synthesis with User-guided Variance (in Chinese). Chinagraph 2004.

Before 2004

- [1]. **Hongxin Zhang**, Dongxu Qi, Chiew-Lan Tai, and Hujun Bao. Representing Images by Multiple Kronecker Product Sum. CAD/Graphics 2003, Macau.
- [2]. **Hongxin Zhang**, Guojin Wang. Semi-stationary subdivision operators in geometric modeling. Progress in Natural Science. 2002, 12(10):772-776.
- [3]. **Hongxin Zhang**, Guojin Wang. Honeycomb subdivision. Journal of software, 2002, 13(7):1199-1208.
- [4]. **Hongxin Zhang**, Guojin Wang. Push-back Semi-Stationary Subdivision (in Chinese). Chinagraph 2002, Journal of software, 2002, 13(9):1830-1839.
- [5]. **Hongxin Zhang**, Guojin Wang. Shape Blending of Curves: Research into Geometric Continuity Preserving (in Chinese). Journal of University Applied Mathematics, 2001, 2a.