

Xin Li

Assistant Professor

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Research Interests

Visual Computing: Computer Graphics, Geometric Modeling, Geometry Processing, Visualization, Vision

Education

- **Ph.D. in Computer Science**, Stony Brook University (SUNY) Aug. 2008
Dissertation: A Shape Mapping Framework for Graphics and Visual Computing
Advisors: Hong Qin, Xianfeng Gu
- **M.S. in Computer Science**, Stony Brook University (SUNY) Aug. 2005
Thesis: Parameterization Based Shape Matching and Comparison
Advisors: Hong Qin, Xianfeng Gu
- **B.S. in Computer Science**, University of Science & Technology of China Jul. 2003
Thesis: On Designing Protein Database Integration System
Advisor: Lihua Yue

Experience

- **Assistant Professor** Aug. 2008 – Present
Department of Electrical and Computer Engineering, and
Center for Computation and Technology
Louisiana State University
- **Research Assistant** Jun. 2005 – Aug. 2008
Department of Computer Science
Stony Brook University (SUNY)
- **Teaching Assistant** Aug. 2003 – May 2005
Department of Computer Science
Stony Brook University (SUNY)

Selected Publications and Talks

Journal Papers

1. X. Li, X. Gu, and H. Qin, "Surface Mapping using Consistent Pants Decomposition", to appear in *IEEE Trans. on Visualization and Computer Graphics (TVCG)* 2009.

2. **X. Li**, X. Guo, H. Wang, Y. He, X. Gu, and H. Qin, "Meshless Harmonic Volumetric Mapping using Fundamental Solution Methods", *to appear in IEEE Tran. on Automation, Science and Engineering (TASE)*, 2009.
3. H. Wang, Y. He, **X. Li**, X. Gu, and H. Qin, "Geometry-Aware Domain Decomposition for T-Spline-based Manifold Modeling", *to appear in Computer & Graphics*, 2009.
4. J. Cao, **X. Li**, G. Wang, and H. Qin, "Surface Reconstruction using Bivariate Simplex Splines on Delaunay Configurations", *to appear in Computer & Graphics*, 2009.
5. **X. Li**, Y. Bao, X. Guo, X. Gu, and H. Qin, "Globally Optimal Surface Mapping between Surfaces with Arbitrary Topology", *IEEE Tran. Visualization and Computer Graphics (TVCG)*, Vol. 14, No. 4, pp. 805-819, 2008.
6. H. Wang, Y. He, **X. Li**, X. Gu, and H. Qin, "Polycube Spline", *Computer Aided Design (CAD)*, Vol. 40, No. 6, pp. 721-733, 2008.
7. **X. Li**, X. Gu, and H. Qin, "Curve Space: Classifying Curves on Surfaces", in *Communications in Information and Systems (CIS)*, Vol. 7, No. 3, pp. 207-226, 2007.
8. W. Zeng, **X. Li**, S-T Yau, X. Gu, "Conformal Spherical Parametrization for High Genus Surfaces", in *Communications in Information and Systems (CIS)*, Vol. 7, No. 3, pp. 273-286, 2007.
9. X. Guo, **X. Li**, Y. Bao, X. Gu, and H. Qin, "Meshless Thin-shell Simulation Based on Global Conformal Parameterization", in *IEEE Tran. Visualization and Computer Graphics (TVCG)*, Vol. 12, No. 3, pp. 375-385, 2006.
10. A. Mehler, Y. Bao, **X. Li**, Y. Wang, and S. Skiena, "Spatial Analysis of News Sources", in *IEEE Tran. Visualization and Computer Graphics (TVCG)*, Vol. 12, No. 5, pp. 765-772, 2006.

Conference Papers

11. **X. Li**, X. Gu, and H. Qin, "Surface Matching using Consistent Pants Decomposition", in *Proc. ACM Solid Physical Modeling Symposium*, pp. 125-136, 2008.
12. **X. Li**, X. Guo, H. Wang, Y. He, X. Gu, and H. Qin, "Harmonic Volumetric Mapping for Solid Modeling Applications", in *Proc. ACM Solid Physical Modeling Symposium*, pp. 109-120, 2007.
13. H. Wang, Y. He, **X. Li**, X. Gu, and H. Qin, "Polycube-map splines", in *Proc. ACM Solid Physical Modeling Symposium*, pp. 241-251, 2007.
14. **X. Li**, Y. He, X. Gu, and H. Qin, "Curves-on-Surfaces: a general shape comparison framework", in *Proc. IEEE International Conference on Shape Modeling and Applications*, pp 352-357, 2006.
15. Y. He, **X. Li**, X. Gu, and H. Qin, "Brain image analysis using spherical splines", in *Proc. EMMCVPR '05, Lecture Notes in Computer Science*, Vol. 3757, pp. 633 – 644, Nov. 2005.

Technical Report

16. **X. Li**, "A shape mapping framework for graphics and visual computing", Ph.D. Dissertation, Stony Brook University (SUNY), June 2008.
17. **X. Li**, "Shape mapping and its application", Ph.D. Dissertation Proposal, Stony Brook University (SUNY), January 2008.

18. **X. Li**, "Shape mapping and its application", Graphics and Visualization Student Symposium, IBM TJ Watson Research Center, April 2007
19. **X. Li**, "Parameterization based shape comparison", Master Thesis, Stony Brook University (SUNY), July 2005.

Invited Talks

- **Shape Matching Framework for Graphics and Visual Computing**
Invited talk, Department of Computer Science, Hong Kong Baptist University, Hong Kong, China. Apr.8th, 2008.
- **Shape Matching Framework for Graphics and Visual Computing**
Invited talk, Division of Computing, Hong Kong Polytechnic University, Hong Kong, China. Apr.7th, 2008.
- **A Shape Matching Framework for Graphics and Visual Computing**
Invited talk, Division of Computing Studies, Arizona State University, Mesa, Arizona, USA. Mar.24th, 2008.
- **A Shape Matching Framework for Graphics and Visual Computing**
Invited talk, Center for Advanced Computer Studies, University of Louisiana at Lafayette, Lafayette, Louisiana, USA. Mar.14th, 2008.
- **Shape Mapping and Its Applications**
Invited talk, Graphics and Visualization Student Symposium, IBM TJ Watson Research Center, Yorktown, New York, USA. Apr.27th, 2007.

Honors

University Fellowship

Stony Brook University (SUNY), Sep. 2003 - Aug. 2004.

National Outstanding College Students

Wang Shujing and Wang Wendou scholarship, Xiamen Education Fund Committee, China, Dec.1999 - Dec.2000.

Wang Shujing and Wang Wendou scholarship, Xiamen Education Fund Committee, China, Dec.2001 - Dec.2002.

University Scholarship, University of Science & Technology of China

Zhang Zongzhi Sci. and Tech. Scholarship, Nov. 2000

Guang Hua Scholarship, Nov. 2001

Excellent Students Scholarship, Nov. 1999, Nov. 2002

National Olympiad in Informatics(Individual Programming Contest), China.

Second Prize in Fujian Province(Jan. 1998)

First prize in in Xiamen City(Dec. 1997)

National Mathematical Contest of High School Students(China)

National Winning Prize(Oct. 1997)

Third Prize in Fujian Province(Oct. 1998)

National Physics Contest of Middle School Students(China)

National Third Prize(Apr. 1996)

Patent

"Multiple Functional Drawing Instrument", Xin Li, the Chinese National Invention Patent, March, 2000, Patent number: ZL 99 2 13319 X