

# Curriculum Vitae

## Prof. Dr. Ligang LIU

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### AREA OF RESEARCH INTERESTS

- Geometric modeling and processing
- Shape analysis
- Geometric design and optimization in 3D printing
- Image and video processing

### WORK EXPERIENCE

- School of Mathematical Sciences, USTC, Feb. 2012 – Present  
Professor
- Department of Computer Science, Harvard University, May 2009 – Jan. 2011  
Visiting professor
- Department of Mathematics, Zhejiang University, Aug. 2004 – Jan. 2012  
Associate Professor/Professor
- Internet Graphics Group, Microsoft Research Asia, Jul. 2001 - Jul. 2004  
Associate Researcher

### EDUCATION

- Department of Mathematics, Zhejiang University, 09/1996—06/2001  
Ph.D., Major in CAGD&CG, Advisor: Prof. Guojin Wang, Graduated with Distinction
- Department of Mathematics, Zhejiang University, 09/1992—06/1996  
Bachelor degree, Major in applied mathematics, Graduated with Distinction

### SELECTED PUBLICATIONS (ACM TOG AND IEEE TVCG, SINCE 2009)

- Peng Song, Bailin Deng, Ziqi Wang, Zhichao Dong, Wei Li, Chi-Wing Fu, Ligang Liu. CofiFab: coarse-to-fine fabrication of large 3D objects. *ACM Transactions on Graphics* (Proc. Siggraph), 35(4), Article 45: 1-11, 2016.
- Ruimin Wang, Ligang Liu, Zhouwang Yang, Kang Wang, Wen Shan, Jiansong Deng, Falai Chen. Construction of Manifolds via Compatible Sparse Representations. *ACM Transactions on Graphics*, 35(2), Article 14: 1-10, 2016.
- Ruizhen Hu, Chenyang Zhu, Oliver van Kaick, Ligang Liu, Ariel Shamir, Hao Zhang.

Interaction Context (ICON): Towards a Geometric Functionality Descriptor. *ACM Transactions on Graphics* (Proc. Siggraph), 34(4): article 83: 1-12, 2015.

- Ruimin Wang, Zhouwang Yang, Ligang Liu, Jiansong Deng, Falai Chen. Decoupling Noises and Features via Weighted L1-analysis Compressed Sensing. *ACM Transactions on Graphics*, 33(2), Article 18: 1-12, 2014.
- Shiyao Xiong, Juyong Zhang, Jianmin Zheng, Jianfei Cai, Ligang Liu. Robust Surface Reconstruction via Dictionary Learning. *ACM Transactions on Graphics* (Proc. Siggraph Asia), 33(6), Article 201: 1-12, 2014.
- Juyong Zhang, Balin Deng, Zishun Liu, Giuseppe Patane, Sofien Bouaziz, Kai Hormann, Ligang Liu. Local Barycentric Coordinates. *ACM Transactions on Graphics* (Proc. Siggraph Asia), 33(6), Article 1: 1-12, 2014.
- Lubin Fan, Przemyslaw Musialski, Ligang Liu, Peter Wonka. Structure Completion for Grid Layouts. *ACM Transactions on Graphics* (Proc. Siggraph Asia), 33(6), Article 1: 1-10, 2014.
- Weiming Wang, Tuanfeng Y. Wang, Zhouwang Yang, Ligang Liu, Xin Tong, Weihua Tong, Jiansong Deng, Falai Chen, Xiuping Liu. Cost-effective Printing of 3D Objects with Skin-Frame Structures. *ACM Transactions on Graphics* (Proc. SIGGRAPH Asia), 32(5), Article 177: 1-10, 2013.
- Hui Lin, Jizhou Gao, Yu Zhou, Guiliang Lu, Mao Ye, Ligang Liu, Ruigang Yang. Semantic Decomposition and Reconstruction of Residential Scenes from LiDAR Data. *ACM Transactions on Graphics* (Proc. SIGGRAPH), 32(4), Article 66: 1-10, 2013.
- Kai Xu, Hao Zhang, Wei Jiang, Ramsay Dyer, Zhi-Quan Cheng, Ligang Liu, Baoquan Chen. Multi-Scale Partial Intrinsic Symmetry Detection. *ACM Transactions on Graphics* (Proc. SIGGRAPH Asia), 31(6), Article 181: 1-12, 2012.
- Hongbo Fu, Shizhe Zhou, Ligang Liu, Niloy J. Mitra. Animated Construction of Line Drawings. *ACM Transactions on Graphics* (Proc. SIGGRAPH ASIA), 30(6), Article No.133: 1-10, 2011.
- Kai Xu, Hanlin Zheng, Hao Zhang, Daniel Cohen-Or, Ligang Liu, Yueshan Xiong. Photo-Inspired Model-Driven 3D Object Modeling. *ACM Transactions on Graphics* (Proc. SIGGRAPH), 30(4), Article No.80: 1-10, 2011.
- Guo Li, Ligang Liu, Hanlin Zheng, Niloy Mitra. Analysis, Reconstruction and Manipulation using Arterial Snakes. *ACM Transactions on Graphics* (Proc. ACM SIGGRAPH ASIA), 29(5), Article No.152: 1-10, 2010.
- Shizhe Zhou, Hongbo Fu, Ligang Liu, Daniel Cohen-Or, Xiaoguang Han. Parametric Reshaping of Human Bodies in Images. *ACM Transactions on Graphics* (Proc. ACM SIGGRAPH), 29(4), Article No. 126: 1-10, 2010.
- Kai Xu, Daniel Cohen-Or, Tao Ju, Ligang Liu, Hao Zhang, Shizhe Zhou, Yueshan Xiong. Feature-Aligned Shape Texturing. *ACM Transactions on Graphics* (Proc. ACM SIGGRAPH ASIA), 28(5), Article No. 108: 1-7, 2009.
- Kai Xu, Hao Zhang, Andrea Tagliasacchi, Ligang Liu, Guo Li, Min Meng, Yueshan Xiong. Partial Intrinsic Reflectional Symmetry of 3D Shapes. *ACM Transactions on Graphics* (Proc. ACM SIGGRAPH ASIA), 28(5), Article No. 138: 1-10, 2009.
- Ran Zhang, Shiwei Wang, Xuejin Chen, Chao Ding, Luo Jiang, Jie Zhou, Ligang Liu. Designing Planar Deployable Objects via Scissor Structures. *IEEE Transactions on Visualization and Computer Graphics*, 22(2): 1051-1062, 2016.

- Chun-Xu Xu, Tuanfeng Y. Wang, Yong-Jin Liu, Ligang Liu, Ying He. Fast Wavefront Propagation (FWP) for Computing Exact Discrete Geodesics on Meshes. *IEEE Transactions on Visualization and Computer Graphics*, 21(7): 822 - 834, 2015.
- Mingqiang Wei, Jinze Yu, Wai-Man Pang, Jun Wang, Jing Qin, Ligang Liu, Pheng-Ann Heng. Bi-normal Filtering for Mesh Denoising. *IEEE Transactions on Visualization and Computer Graphics*, 21(1): 43-55, 2015.
- Jing Tong, Jin Zhou, Ligang Liu, Zhigeng Pan, Hao Yan. Scanning 3D Full Human Bodies using Kinects. *IEEE Transactions on Visualization and Computer Graphics* (Proc. IEEE Virtual Reality), 18(4), 643-650, 2012.
- Zhonggui Chen, Zhan Yuan, Yi-King Choi, Ligang Liu, Wenping Wang. Variational Blue Noise Sampling, *IEEE Transactions on Visualization and Computer Graphics*, 18(10): 1784-1796, 2012.

### **EDITOR BOARD OF ACADEMIC JOURNALS**

- IEEE Transactions on Visualization and Computer Graphics (IEEE TVCG)
- IEEE Computer Graphics & Applications (IEEE CG&A)
- Computer Graphics Forum (CGF)
- Computer Aided Geometric Design (CAGD)
- The Visual Computer (TVC)

### **CONFERENCE CO-CHAIRS**

- Geometric Modeling and Processing (GMP 2017), Conference Co-chair
- Computational Visual Media Conference (CVM 2016), Program Co-chair
- Eurographics Symposium on Geometry Processing (SGP 2015) , Program Co-chair
- ACM Symposium on Solid and Physical Modeling (SPM 2014) , Program Co-chair

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