HUAMIN WANG

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Interests

High-performance, high-fidelity simulation of rigid and deformable solids is foundational to the future of the digital world and physics-aware artificial intelligence. My research advances this goal by coupling next-generation graphics hardware with generative models across three core thrusts:

- **Hardware-Accelerated Physics Simulation**   I design and optimize end-to-end simulation pipelines, refining core algorithms to achieve substantial acceleration across heterogeneous hardware platforms — including GPUs, SoCs, and NPUs — while ensuring numerical accuracy, stability, scalability.
- **Generative AI for Simulation**   I develop generative and hybrid machine learning models that augment classical solvers for deformable objects, efficiently capturing quasistatic and dynamic phenomena that are otherwise difficult or costly to reproduce through traditional methods alone.
- **Bridging the Sim-to-Real Gap**   I build accurate simulation models and specialized measurement systems to characterize real material properties, enabling digital twins that faithfully replicate physical behaviors for applications in visualization, robotics, and interactive virtual environments.

Appointments

2022–Present	**Chief Scientist**, *Linctex Digital Inc. (Style3D)* , Hangzhou, China. Supervising the Style3D research team worldwide
2017–2022	**Associate Professor (tenured)**, *The Ohio State University*, Columbus, OH, USA. The Department of Computer Science and Engineering
2011–2017	**Assistant Professor**, *The Ohio State University*, Columbus, OH, USA. The Department of Computer Science and Engineering
2009–2011	**Postdoctoral Researcher**, *The University of California, Berkeley*, Berkeley, CA, USA. Advisor: Prof. James F. O'Brien and Prof. Ravi Ramamoorthi
2004–2009	**Research Assistant**, *Georgia Institute of Technology*, Atlanta, GA, USA. Advisor: Prof. Greg Turk
Fall 2007	**Research Intern**, *Microsoft Research Asia*, Beijing, China. Advisor: Dr. Kun Zhou and Dr. Baining Guo
Fall 2007	**Research Intern**, *Microsoft Research*, Redmond, WA, USA. Advisor: Dr. Hugues Hoppe
Fall 2007	**Research Intern**, *Adobe Research*, San Jose, CA, USA. Advisor: Dr. Gavin Miller
2004	**Research Assistant**, *Stanford University*, Stanford, CA, USA. Advisor: Prof. Ron Fedkiw

Education

2004–2009 **Ph.D. in Computer Science**, *Georgia Institute of Technology*, Atlanta, GA, USA.
Advisor: Prof. Greg Turk

2003–2004 **M.S. in Computer Science**, *Stanford University*, Stanford, CA, USA.
Advisor: Prof. Leo Guibas

1998–2002 **B.Eng. in Computer Science and Engineering**, *Zhejiang University*, Hangzhou, China.
with highest honors from the Mixed Class '98 (a gifted program)

Publications

Journal and Conference Papers

2025 Feng Zhou, Ruiyang Liu, Chen Liu, Gaofeng He, Yong-Lu Li, Xiaogang Jin, and **Huamin Wang**. Design2GarmentCode: Turning design concepts to tangible garments through program synthesis. In *The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, CVPR '25, pages 23712–23722, June 2025.

– Diyang Zhang, Zhendong Wang, Zegao Liu, Xinming Pei, Weiwei Xu, and **Huamin Wang**. Physics-inspired estimation of optimal cloth mesh resolution. In *Proceedings of the Special Interest Group on Computer Graphics and Interactive Techniques Conference Conference Papers*, SIGGRAPH Conference Papers '25, New York, NY, USA, 2025.

– Jun Ma, Qian He, Gaofeng He, Huang Chen, Chen Liu, Xiaogang Jin, and **Huamin Wang**. One-shot embroidery customization via contrastive LoRA modulation. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 44, no. 6, December 2025.

– Zixuan Lu, Ziheng Liu, Lei Lan, **Huamin Wang**, Yuko Ishiwaka, Chenfanfu Jiang, Kui Wu, and Yin Yang. High-performance CPU cloth simulation using domain-decomposed projective dynamics. *ACM Trans. Graph. (SIGGRAPH)*, vol. 44, no. 4, July 2025.

– Siran Li, Ruiyang Liu, Chen Liu, Zhendong Wang, Gaofeng He, Yong-Lu Li, Xiaogang Jin, and **Huamin Wang**. GarmageNet: A multimodal generative framework for sewing pattern design and generic garment modeling. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 44, no. 6, December 2025.

– Boqian Li, Xuan Li, Ying Jiang, Tianyi Xie, Feng Gao, **Huamin Wang**, Yin Yang, and Chenfanfu Jiang. GarmentDreamer: 3DGS guided garment synthesis with diverse geometry and texture details. In *International Conference on 3D Vision (3DV)*, March 2025.

– Lei Lan, Zixuan Lu, Chun Yuan, Weiwei Xu, Hao Su, **Huamin Wang**, Chenfanfu Jiang, and Yin Yang. JGS2: Near second-order converging Jacobi/Gauss-Seidel for GPU elastodynamics. *ACM Trans. Graph. (SIGGRAPH)*, vol. 44, no. 4, July 2025.

– Chengzhu He, Zhendong Wang, Zhaorui Meng, Junfeng Yao, Shihui Guo, and **Huamin Wang**. Automated task scheduling for cloth and deformable body simulations in heterogeneous computing environments. In *Proceedings of the Special Interest Group on Computer Graphics and Interactive Techniques Conference Conference Papers*, SIGGRAPH Conference Papers '25, New York, NY, USA, 2025.

– Dewen Guo, Zhendong Wang, Zegao Liu, Sheng Li, Guoping Wang, Yin Yang, and **Huamin Wang**. Progressive outfit assembly and instantaneous pose transfer. In *SIGGRAPH Asia 2025 Conference Papers*, SA Conference papers '25, New York, NY, USA, December 2025.

- Dewen Guo, Zhendong Wang, Zegao Liu, Sheng Li, Guoping Wang, Yin Yang, and **Huamin Wang**. Fast physics-based modeling of knots and ties using templates. In *Proceedings of the Special Interest Group on Computer Graphics and Interactive Techniques Conference Conference Papers*, SIGGRAPH Conference Papers '25, New York, NY, USA, 2025.

- Yaoan Gao, Jiamin Xu, James Tompkin, Qi Wang, Zheng Dong, Hujun Bao, Yujun Shen, **Huamin Wang**, Changqing Zou, and Weiwei Xu. Efficient object reconstruction with differentiable area light shading. In *SIGGRAPH Asia 2025 Conference Papers*, SA Conference papers '25, New York, NY, USA, December 2025.

2024 Chun Yuan, Haoyang Shi, Lei Lan, Yuxing Qiu, Cem Yuksel, **Huamin Wang**, Chenfanfu Jiang, Kui Wu, and Yin Yang. Volumetric homogenization for knitwear simulation. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 43, no. 6, December 2024.

- Zixuan Lu, Xiaowei He, Yuzhong Guo, Xuehui Liu, and **Huamin Wang**. Projective peridynamic modeling of hyperelastic membranes with contact. *IEEE Transactions on Visualization and Computer Graphics*, vol. 30, no. 8, pages 4601–4614, August 2024.

- Chen Liu, Weiwei Xu, Yin Yang, and **Huamin Wang**. Automatic digital garment initialization from sewing patterns. *ACM Trans. Graph. (SIGGRAPH)*, vol. 43, no. 4, July 2024.

- Xuan Li, Minchen Li, Xuchen Han, **Huamin Wang**, Yin Yang, and Chenfanfu Jiang. A dynamic duo of finite elements and material points. In *ACM SIGGRAPH 2024 Conference Papers*, SIGGRAPH '24, New York, NY, USA, 2024.

- Lei Lan, Zixuan Lu, Jingyi Long, Chun Yuan, Xuan Li, Xiaowei He, **Huamin Wang**, Chenfanfu Jiang, and Yin Yang. Efficient GPU cloth simulation with non-distance barriers and subspace reuse. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 43, no. 6, December 2024.

- Ying Jiang, Chang Yu, Tianyi Xie, Xuan Li, Yutao Feng, **Huamin Wang**, Minchen Li, Henry Lau, Feng Gao, Yin Yang, and Chenfanfu Jiang. VR-GS: A physical dynamics-aware interactive Gaussian splatting system in virtual reality. In *ACM SIGGRAPH 2024 Conference Papers*, SIGGRAPH '24, New York, NY, USA, 2024.

- Rui Hu, Qian He, Gaofeng He, Jiedong Zhuang, Huang Chen, Huafeng Liu, and **Huamin Wang**. FashionR2R: Texture-preserving rendered-to-real image translation with diffusion models. In *Proceedings of the 38th International Conference on Neural Information Processing Systems*, NIPS '24, Red Hook, NY, USA, 2024.

- Xudong Feng, **Huamin Wang**, Yin Yang, and Weiwei Xu. Neural-assisted homogenization of yarn-level cloth. In *ACM SIGGRAPH 2024 Conference Papers*, SIGGRAPH '24, New York, NY, USA, 2024.

- Pinxuan Dai, Jiamin Xu, Wenxiang Xie, Xinguo Liu, **Huamin Wang**, and Weiwei Xu. High-quality surface reconstruction using Gaussian surfels. In *ACM SIGGRAPH 2024 Conference Papers*, SIGGRAPH '24, New York, NY, USA, 2024.

2023 Zhendong Wang, Yin Yang, and **Huamin Wang**. Stable discrete bending by analytic eigensystem and adaptive orthotropic geometric stiffness. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 42, no. 6, December 2023.

- Tianyu Wang, Jiong Chen, Dongping Li, Xiaowei Liu, **Huamin Wang**, and Kun Zhou. Fast GPU-based two-way continuous collision handling. *ACM Trans. Graph. (SIGGRAPH)*, vol. 42, no. 5, July 2023.

- Xuan Li, Yu Fang, Lei Lan, **Huamin Wang**, Yin Yang, Minchen Li, and Chenfanfu Jiang. Subspace-preconditioned GPU projective dynamics with contact for cloth simulation. In *SIGGRAPH Asia 2023 Conference Papers*, SA '23, New York, NY, USA, December 2023.

- Lei Lan, Minchen Li, Chenfanfu Jiang, **Huamin Wang**, and Yin Yang. Second-order stencil descent for interior-point hyperelasticity. *ACM Trans. Graph. (SIGGRAPH)*, vol. 42, no. 4, July 2023.

2022 Botao Wu, Zhendong Wang, and **Huamin Wang**. A GPU-based multilevel additive Schwarz preconditioner for cloth and deformable body simulation. *ACM Trans. Graph. (SIGGRAPH)*, vol. 41, no. 4, July 2022.

- Xudong Feng, Wenchao Huang, Weiwei Xu, and **Huamin Wang**. Learning-based bending stiffness parameter estimation by a drape tester. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 41, no. 6, November 2022.

2021 **Huamin Wang**. GPU-based simulation of cloth wrinkles at submillimeter levels. *ACM Trans. Graph. (SIGGRAPH)*, vol. 40, no. 4, July 2021.

- Xudong Feng, Jiafeng Liu, **Huamin Wang**, Yin Yang, Hujun Bao, Bernd Bickel, and Weiwei Xu. Computational design of skinned quad-robots. *IEEE Transactions on Visualization and Computer Graphics*, vol. 27, no. 6, pages 2881–2895, June 2021.

2020 Guowei Yan, Zhili Chen, Jimei Yang, and **Huamin Wang**. Interactive liquid splash modeling by user sketches. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 39, no. 6, November 2020.

- Longhua Wu, Botao Wu, Yin Yang, and **Huamin Wang**. A safe and fast repulsion method for GPU-based cloth self collisions. *ACM Trans. Graph. (SIGGRAPH)*, vol. 40, no. 1, December 2020.

- Ran Luo, Tianjia Shao, **Huamin Wang**, Weiwei Xu, Xiang Chen, Kun Zhou, and Yin Yang. NNWarp: Neural network-based nonlinear deformation. *IEEE Transactions on Visualization and Computer Graphics*, vol. 26, no. 4, pages 1745–1759, April 2020.

- Lei Lan, Ran Luo, Marco Fratarcangeli, Weiwei Xu, **Huamin Wang**, Xiaohu Guo, Junfeng Yao, and Yin Yang. Medial elastics: Efficient and collision-ready deformation via medial axis transform. *ACM Trans. Graph. (SIGGRAPH)*, vol. 39, no. 3, April 2020.

2018 Guowei Yan, Wei Li, Ruigang Yang, and **Huamin Wang**. Inexact descent methods for elastic parameter optimization. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 37, no. 6, December 2018.

- Zhendong Wang, Longhua Wu, Marco Fratarcangeli, Min Tang, and **Huamin Wang**. Parallel multigrid for nonlinear cloth simulation. *Computer Graphics Forum (Pacific Graphics)*, vol. 37, no. 7, pages 131–141, October 2018.

- **Huamin Wang**. Rule-free sewing pattern adjustment with precision and efficiency. *ACM Trans. Graph. (SIGGRAPH)*, vol. 37, no. 4, July 2018.

- Rajaditya Mukherjee, Longhua Wu, and **Huamin Wang**. Interactive two-way shape design of elastic bodies. *Proc. ACM Comput. Graph. Interact. Tech. (I3D)*, vol. 1, no. 1, July 2018.

- Ran Luo, Weiwei Xu, **Huamin Wang**, Kun Zhou, and Yin Yang. Physics-based quadratic deformation using elastic weighting. *IEEE Transactions on Visualization and Computer Graphics*, vol. 24, no. 12, pages 3188–3199, December 2018.

- Xiaowei He, **Huamin Wang**, and Enhua Wu. Projective peridynamics for modeling versatile elastoplastic materials. *IEEE Transactions on Visualization and Computer Graphics*, vol. 24, no. 9, pages 2589–2599, September 2018.

- Marco Fratarcangeli, **Huamin Wang**, and Yin Yang. Parallel iterative solvers for real-time elastic deformations. In *SIGGRAPH Asia 2018 Courses*, SA '18, New York, NY, USA, 2018.

2017 Miaojun Yao, Zhili Chen, Weiwei Xu, and **Huamin Wang**. Modeling, evaluation and optimization of interlocking shell pieces. *Computer Graphics Forum (Pacific Graphics)*, vol. 36, no. 7, pages 1–13, October 2017.

- Aihua Mao, Mingle Wang, Yong-Jin Liu, **Huamin Wang**, and Guiqing Li. SPH-based simulation of liquid wetting across textile materials. *Commun. Inf. Syst.*, vol. 17, no. 3, pages 147–169, 2017.

2016 Sheng Yang, Xiaowei He, **Huamin Wang**, Sheng Li, Guoping Wang, Enhua Wu, and Kun Zhou. Enriching SPH simulation by approximate capillary waves. In *Proceedings of the ACM SIGGRAPH/Eurographics Symposium on Computer Animation*, SCA '16, pages 29–36, Goslar, DEU, July 2016.

- **Huamin Wang** and Yin Yang. Descent methods for elastic body simulation on the GPU. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 35, no. 6, December 2016.

- Min Tang, **Huamin Wang**, Le Tang, Ruofeng Tong, and Dinesh Manocha. CAMA: Contact-aware matrix assembly with unified collision handling for GPU-based cloth simulation. *Computer Graphics Forum (Eurographics)*, vol. 35, no. 2, pages 511–521, May 2016.

- Rajaditya Mukherjee, Xiaofeng Wu, and **Huamin Wang**. Incremental deformation subspace reconstruction. *Computer Graphics Forum (Pacific Graphics)*, vol. 35, no. 7, pages 169–178, October 2016.

2015 Miaojun Yao, Zhili Chen, Linjie Luo, Rui Wang, and **Huamin Wang**. Level-set-based partitioning and packing optimization of a printable model. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 34, no. 6, November 2015.

- Xiaofeng Wu, Rajaditya Mukherjee, and **Huamin Wang**. A unified approach for subspace simulation of deformable bodies in multiple domains. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 34, no. 6, November 2015.

- **Huamin Wang**. A Chebyshev semi-iterative approach for accelerating projective and position-based dynamics. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 34, no. 6, November 2015.

- Xiaowei He, **Huamin Wang**, Fengjun Zhang, Hongan Wang, Guoping Wang, Kun Zhou, and Enhua Wu. Simulation of fluid mixing with interface control. In *Proceedings of the 14th ACM SIGGRAPH / Eurographics Symposium on Computer Animation*, SCA '15, page 129–135, New York, NY, USA, August 2015.

- Xiaowei He, **Huamin Wang**, Fengjun Zhang, Hongan Wang, Guoping Wang, and Kun Zhou. Robust simulation of sparsely sampled thin features in SPH-based free surface flows. *ACM Trans. Graph. (SIGGRAPH)*, vol. 34, no. 1, December 2015.

- Tamal K. Dey, Bo Fu, **Huamin Wang**, and Lei Wang. Automatic posing of a meshed human model using point clouds. *Computers & Graphics (Shape Modeling International)*, vol. 46, pages 14–24, February 2015. Shape Modeling International 2014.

- Zhili Chen, Byungmoon Kim, Daichi Ito, and **Huamin Wang**. Wetbrush: GPU-based 3D painting simulation at the bristle level. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 34, no. 6, November 2015.

2014 Mao Ye, **Huamin Wang**, Nianchen Deng, Xubo Yang, and Ruigang Yang. Real-time human pose and shape estimation for virtual try-on using a single commodity depth camera. *IEEE transactions on visualization and computer graphics (IEEE VR)*, vol. 20, no. 4, page 550—559, April 2014.

- **Huamin Wang**. Defending continuous collision detection against errors. *ACM Trans. Graph. (SIGGRAPH)*, vol. 33, no. 4, July 2014.

- Zhili Chen, Miaojun Yao, Renguo Feng, and **Huamin Wang**. Physics-inspired adaptive fracture refinement. *ACM Trans. Graph. (SIGGRAPH)*, vol. 33, no. 4, July 2014.

2013 Zhili Chen, Renguo Feng, and **Huamin Wang**. Modeling friction and air effects between cloth and deformable bodies. *ACM Trans. Graph. (SIGGRAPH)*, vol. 32, no. 4, July 2013.

- Jiating Chen, Xiaoyin Ge, Li-Yi Wei, Bin Wang, Yusu Wang, **Huamin Wang**, Yun Fei, Kang-Lai Qian, Jun-Hai Yong, and Wenping Wang. Bilateral blue noise sampling. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 32, no. 6, November 2013.

- Oleksiy Busaryev, Tamal K. Dey, and **Huamin Wang**. Adaptive fracture simulation of multi-layered thin plates. *ACM Trans. Graph. (SIGGRAPH)*, vol. 32, no. 4, July 2013.

2012 Yizhong Zhang, **Huamin Wang**, Shuai Wang, Yiying Tong, and Kun Zhou. A deformable surface model for real-time water drop animation. *IEEE Transactions on Visualization and Computer Graphics*, vol. 18, no. 8, pages 1281–1289, August 2012.

- Qing Zhang, Jing Tong, **Huamin Wang**, Zhigeng Pan, and Ruigang Yang. Simulation guided hair dynamics modeling from video. *Computer Graphics Forum (Pacific Graphics)*, vol. 31, no. 7, pages 2003–2010, September 2012.

- Miguel A. Otaduy, Bernd Bickel, Derek Bradley, and **Huamin Wang**. Data-driven simulation methods in computer graphics: Cloth, tissue and faces. In *ACM SIGGRAPH 2012 Courses*, SIGGRAPH '12, New York, NY, USA, 2012.

- Wei Hua, Rui Wang, Xusheng Zeng, Ying Tang, **Huamin Wang**, and Hujun Bao. Compressing repeated content within large-scale remote sensing images. *Vis. Comput. (Computer Graphics International)*, vol. 28, no. 6-8, pages 755–764, June 2012.

- Oleksiy Busaryev, Tamal K. Dey, **Huamin Wang**, and Zhong Ren. Animating bubble interactions in a liquid foam. *ACM Trans. Graph. (SIGGRAPH)*, vol. 31, no. 4, July 2012.

2011 **Huamin Wang**, James F. O'Brien, and Ravi Ramamoorthi. Data-driven elastic models for cloth: Modeling and measurement. *ACM Trans. Graph. (SIGGRAPH)*, vol. 30, no. 4, July 2011.

2010 **Huamin Wang**, James O'Brien, and Ravi Ramamoorthi. Multi-resolution isotropic strain limiting. *ACM Trans. Graph. (SIGGRAPH Asia)*, vol. 29, no. 6, December 2010.

- **Huamin Wang**, Florian Hecht, Ravi Ramamoorthi, and James F. O'Brien. Example-based wrinkle synthesis for clothing animation. *ACM Trans. Graph. (SIGGRAPH)*, vol. 29, no. 4, July 2010.

2009 **Huamin Wang**, Miao Liao, Qing Zhang, Ruigang Yang, and Greg Turk. Physically guided liquid surface modeling from videos. *ACM Trans. Graph. (SIGGRAPH)*, vol. 28, no. 3, July 2009.

- Nicolas Ray, Bruno Lévy, **Huamin Wang**, Greg Turk, and Bruno Vallet. Material space texturing. *Computer Graphics Forum*, vol. 28, no. 6, pages 1659–1669, September 2009.

- Miao Liao, Qing Zhang, **Huamin Wang**, Ruigang Yang, and Minglun Gong. Modeling deformable objects from a single depth camera. In *2009 IEEE 12th International Conference on Computer Vision (ICCV Oral)*, pages 167–174, September 2009.

2008 **Huamin Wang**, Yonatan Wexler, Eyal Ofek, and Hugues Hoppe. Factoring repeated content within and among images. *ACM Trans. Graph. (SIGGRAPH)*, vol. 27, no. 3, pages 1–10, August 2008.

2007 **Huamin Wang**, Mingxuan Sun, and Ruigang Yang. Space-time light field rendering. *IEEE Transactions on Visualization and Computer Graphics*, vol. 13, no. 4, pages 697–710, July 2007.

- **Huamin Wang**, Gavin Miller, and Greg Turk. Solving general shallow wave equations on surfaces. In *Proceedings of the 2007 ACM SIGGRAPH/Eurographics Symposium on Computer Animation*, SCA '07, pages 229–238, Goslar, DEU, August 2007.

2005 **Huamin Wang** and Ruigang Yang. Towards space-time light field rendering. In *Proceedings of the 2005 Symposium on Interactive 3D Graphics and Games*, I3D '05, pages 125–132, New York, NY, USA, April 2005.

- **Huamin Wang**, Peter J. Mucha, and Greg Turk. Water drops on surfaces. *ACM Trans. Graph. (SIGGRAPH)*, vol. 24, no. 3, pages 921–929, July 2005.

Total 74 Publications

Books and Theses

2011 Ruigang Yang, **Huamin Wang**, and Cha Zhang. *Computational Photography: Methods and Applications*, chapter Chapter 18: Dynamic View Synthesis with an Array of Cameras. CRC Press, 2011.

2009 **Huamin Wang**. *Practical Water Animation using Physics and Image Based Methods*. PhD thesis, Georgia Institute of Technology, August 2009.

Total 2 Publications

Patents (not complete)

2024 **Huamin Wang** and Chen Liu. Systems and methods for arranging clothing patterns, 2024. US12175597B1.

- **Huamin Wang** and Chen Liu. Systems and methods for arranging and displaying clothing patterns, 2024. US12175620B1.

- Chen Liu, Huang Chen, Gaofeng He, and **Huamin Wang**. Methods and systems for personalized image generation, 2024. US20250106369A1.

2022 Chen Liu and **Huamin Wang**. Parallel computation methods and systems for multiplying symmetric matrices with vectors, 2022. US20250036716A1.

- Chen Liu and **Huamin Wang**. Machine learning-based methods, devices, and computer-readable storage media for measuring bending stiffness of fabrics, 2022. US20250045499A1.

2009 Hugues H. Hoppe, Yonatan Wexler, Eyal Ofek, and **Huamin Wang**. Factoring repeated content within and among images, 2009. EP2252971B1.

2008   Gavin S. P. Miller and **Huamin Wang**. System and method for simulating shallow water effects on arbitrary surfaces, 2008. US7921003B2.

Total   7 Publications

Awards

2025	**Best Paper Honorable Mentions**, *ACM SIGGRAPH 2025*, Vancouver, Canada. High-Performance CPU Cloth Simulation Using Domain-Decomposed Projective Dynamics
2018	**Best Paper Award**, *Pacific Graphics*, Hong Kong, China. Parallel multigrid for nonlinear cloth simulation
2017	**Lowley Research Award**, *College of Engineering*, The Ohio State University, Columbus, OH.
2013–2018	**Research Gift Award**, *NVIDIA Corporation*, Santa Clara, CA.
2012–2018	**Research Gift Award**, *Adobe Inc*, San Jose, CA.
2006	**Graduate Fellowship**, *NVIDIA Corporation*, Santa Clara, CA.

Services

2024–Present	**Associate Editor**. IEEE Transactions on Visualization and Computer Graphics (TVCG), impact factor: 5.2
2020–Present	**Associate Editor**. The Visual Computer Journal (TVCJ), impact factor: 3.5
2026	**Technical Program Assistant Chair**. ACM SIGGRAPH Asia
2023	**Technical Program Chair**. ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA)
2017	**Technical Program Chair**. Computer Animation and Social Agents (CASA)
2014, 2015, 2018–2025	**Technical Program Committee Member**. ACM SIGGRAPH, ACM SIGGRAPH Asia
2010, 2014–2017	**Technical Program Committee Member**. Pacific Graphics
2012–2014, 2018	**Technical Program Committee Member**. ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (I3D)
2012, 2013	**Technical Program Committee Member**. Computer Animation and Social Agents (CASA)
2012–2018	**Technical Program Committee Member**. ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA)
2013, 2017	**Technical Program Committee Member**. Computer Aided Design and Computer Graphics (CAD & Graphics)
2005–Present	**Reviewer/Panelist**. National Science Foundation (NSF), ACM SIGGRAPH, ACM SIGGRAPH Asia, Eurographics, Computer Graphics International (CGI), Eurographics Symposium on Rendering (EGSR), ACM SIGGRAPH/Eurographics Symposium on Computer Animation (SCA), ACM SIGGRAPH Symposium on Interactive 3D Graphics and Games (I3D), Computer Graphics Forum (CGF), Computer Animation and Social Agents (CASA), ACM Transactions on Graphics (TOG), IEEE Transactions on Visualization and Computer Graphics (TVCG), Computer Aided Design and Computer Graphics (CAD & Graphics), The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), International Conference on Computer Vision (ICCV)

Referees

Upon request.