

Tetsuya Takahashi

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Education

- The University of North Carolina at Chapel Hill, USA **08/2014–08/2019 (expected)**
 - Doctor of Philosophy in Computer Science
 - Advisor: Professor Ming C. Lin
- The University of North Carolina at Chapel Hill, USA **08/2014–08/2017**
 - Master of Science in Computer Science
 - Adviser: Professor Ming C. Lin
- Keio University, Japan **04/2012–03/2014**
 - Master of Science in School of Science for Open and Environmental Systems
 - Thesis: Position-Based Viscous Fluids with Elasticity and Thermal Conductivity
 - Advisor: Professor Issei Fujishiro
- Keio University, Japan **04/2008–03/2012**
 - Bachelor of Science in Information and Computer Science
 - Thesis: Simulation of Trampling Roughly into Snow Taking Sintering Effect into Account
 - Advisor: Professor Issei Fujishiro

Professional Experience

- Adobe, USA, emerging technology intern **05/2017–08/2017**
 - Mentor: Dr. Byungmoon Kim and Dr. Qingnan Zhou
- Adobe, USA, emerging technology intern **06/2015–08/2015**
 - Mentor: Dr. Byungmoon Kim
- UEI Research, Japan, collaborative research staff **09/2014–05/2015**
- UEI Research, Japan, research staff **12/2013–07/2014**

Research Interests

I am interested in physically-based simulation and computer animation, and data-driven approaches, machine learning, and artificial intelligence.

Publications

- **Tetsuya Takahashi** and Ming C. Lin, "Video-Guided Real-to-Virtual Parameter Transfer for Viscous Fluids," *SIGGRAPH ASIA 2019*, 2019 (conditionally accepted).
- **Tetsuya Takahashi** and Ming C. Lin, "A Geometrically Consistent Viscous Fluid Solver with Two-Way Fluid-Solid Coupling," *Computer Graphics Forum (Eurographics 2019)*, 2019.
Tetsuya Takahashi and Ming C. Lin, "A Multilevel SPH Solver with Unified Solid Boundary Handling," *Computer Graphics Forum (Pacific Graphics 2016)*, 2016.
- **Tetsuya Takahashi**, Yoshinori Dobashi, Tomoyuki Nishita, and Ming C. Lin, "An Efficient Hybrid Incompressible SPH Solver with Interface Handling for Boundary Conditions," *Computer Graphics Forum* (presented in Pacific Graphics 2016), 2016.
- **Tetsuya Takahashi**, Yoshinori Dobashi, Issei Fujishiro, Tomoyuki Nishita, and Ming C. Lin, "Implicit Formulation for SPH-based Viscous Fluids," *Computer Graphics Forum (Eurographics 2015)*, 2015.
- **Tetsuya Takahashi**, Yoshinori Dobashi, Issei Fujishiro, and Tomoyuki Nishita, "Volume Preserving Viscoelastic Fluids with Large Deformations Using Position-based Velocity Corrections," *The Visual Computer*, 2014.
- **Tetsuya Takahashi**, Issei Fujishiro, and Tomoyuki Nishita, "A Velocity Correcting Method for Volume Preserving Viscoelastic Fluids," in *Proceedings of Computer Graphics International 2014*, 2014.
- **Tetsuya Takahashi**, Issei Fujishiro, and Tomoyuki Nishita, "Visual Simulation of Compressible Snow with Friction and Cohesion," in *Proceedings of NICOGRAPH International 2014*, 2014.
- **Tetsuya Takahashi**, Tomoyuki Nishita, and Issei Fujishiro, "Fast Simulation of Viscous Fluids with Elasticity and Thermal Conductivity Using Position-Based Dynamics," *Computers & Graphics* 43, 21–30 (presented in Shape Modeling International 2015), 2014.
- **Tetsuya Takahashi** and Issei Fujishiro, "Accelerated Viscous Fluid Simulation Using Position-Based Constraints," in *Proceedings of CAD/Graphics 2013*, 2013.
- **Tetsuya Takahashi** and Issei Fujishiro, "Particle-Based Simulation of Snow Trampling Taking Sintering Effect into Account," *ACM SIGGRAPH 2012 posters*, Article No. 7, 2012.
- **Tetsuya Takahashi** and Issei Fujishiro, "Simulation of Trampling Roughly into Snow -Taking Sintering Effect into Account-," *IIEEJ Visual Computing and IPSJ CG Joint Symposium 2012 DVD*, 2012 (in Japanese, refereed).
- **Tetsuya Takahashi** and Issei Fujishiro, "Simulation of Trampling Roughly into Snow Taking Sintering Effect into Account," *IPSJ 74th Annual Congress Abstracts*, Vol. 4, pp. 143–144, 2012 (in Japanese, unrefereed, Student Encouragement Award).

Funding and Awards

- Award for Excellence in Science, Japan Student Services Organization, 06/2018
- External Funding Award, University of North Carolina at Chapel Hill, 03/2017
- External Funding Award, University of North Carolina at Chapel Hill, 03/2016
- External Funding Award, University of North Carolina at Chapel Hill, 03/2015
- Scholarship for Study Abroad, Japan Student Services Organization, 08/2014–07/2017
- Award for Excellence in Science, Japan Student Services Organization, 04/2014

- The Research Grant of Keio Leading-Edge Laboratory of Science & Technology, Keio Leading-Edge Science and Technology, 06/2013
- Institutional Program for Young Researcher Overseas Visits, Japan Society for the Promotion of Science (JSPS), 07/2012
- Student Encouragement Award, Information Processing Society of Japan, 03/2012
- Nakanishi Encouragement Award, Keio University, 01/2012

Skills

- Programming: C/C++, Java, Python, OpenGL, OpenMP, CUDA, MATLAB, Latex
- Language: Japanese (Native), English

Last updated: July 30, 2019