

Yoshihiro Kanamori – Curriculum Vitae

Ph.D. in Computer Science, Assistant Professor
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Personal Information:

Gender: Male

Date of birth: March 14, 1981

Place of birth: Munakata, Fukuoka, Japan

Nationality: Japan

Education:

4/2006 – 3/2009 The University of Tokyo, Japan, Ph.D. in Computer Science.

Thesis: “A Study on Efficient Sampling and Fast Rendering of Point-based Implicit Surfaces”

Supervisor: Prof. Tomoyuki Nishita

4/2004 – 3/2006 The University of Tokyo, Japan, M.Sc. in Computer Science.

Thesis: “An Efficient Up-Sampling Method for Filling Holes on Point-sampled Surfaces and Its Applications”

Supervisor: Prof. Tomoyuki Nishita

4/1999 – 3/2004 The University of Tokyo, Japan, B.S. in Science.

Thesis: “A Hemicube Radiosity Method for Point-sampled Models”

Supervisor: Prof. Tomoyuki Nishita

Experiences:

2009 – Present Assistant Professor in University of Tsukuba

2008 Student Staff of Pacific Graphics 2008

2004 – 2009 Group Leader in Nishita Laboratory

Instructed four students (including three foreign students).

2004 – 2009 Teaching Assistant

2002 – 2003 Part-time Job at a Venture Company

Developing an online B2B site using Linux, Apache, Perl and PostgreSQL.

2001 – 2004 Management of Local Area Network (LAN) in a Student Dormitory

Distributing LAN cables from a server room to about 100 rooms, setting up a PC server, and developing an online accounting system and a portal site.

Research Interests:

Computer graphics, image editing techniques, computer-assisted creation of illustration and animation, non-photo realistic rendering (NPR), real-time rendering and visual simulation.

Publications:

You may find my recent publications at <http://kanamori.cs.tsukuba.ac.jp/#publications>

Journals:

1. Satoshi Iizuka, Yuki Endo, Masaki Hirose, **Yoshihiro Kanamori**, Jun Mitani, Yukio Fukui: "Efficient Depth Propagation for Constructing a Layered Depth Image from a Single Image," Computer Graphics Forum (Proc. of Pacific Graphics 2014), 2014, to appear.
2. Satoshi Iizuka, Yuki Endo, Masaki Hirose, **Yoshihiro Kanamori**, Jun Mitani, Yukio Fukui: "Object repositioning based on the perspective in a single image," Computer Graphics Forum, 2014, to appear.
3. Naoya Tsuruta, Jun Mitani, **Yoshihiro Kanamori**, Yukio Fukui: "Interactive Design of 3D Geometry Made by Bending Inextensible Sheet Material Containing Slits," The International Journal of CAD/CAM (IJCC), Vol. 13, No. 2, pp. 23 - 29, 2013.
4. Hiroki Yamada, **Yoshihiro Kanamori**, Yukio Fukui, Jun Mitani: "Relighting with Kinect", the ITE Journal (in Japanese), Vol. 67, No. 5, pp. J152-J154, 2013.
5. **Yoshihiro Kanamori**, Takeshi Nishikawa, Yonghao Yue, Tomoyuki Nishita: "Visual Simulation of Bubbles in Carbonated Water," The Journal of the Society of Art and Science, Vol. 11, No. 4, pp. 118-128, 2013.
6. Witawat Rungjiratananon, **Yoshihiro Kanamori**, Tomoyuki Nishita: "Wetting Effects in Hair Simulation," Computer Graphics Forum (Proc. of Pacific Graphics 2012), Volume 31, Issue 7pt1, pp. 1993-2002, 2012-9.
7. Yuki Endo, **Yoshihiro Kanamori**, Yukio Fukui, Jun Mitani: "Matting and Compositing for Fresnel Reflection on Wavy Surfaces," Computer Graphics Forum (Proc. of Eurographics Symposium on Rendering (EGSR) 2012), Volume 31, Number 4, pp. 1435-1443, 2012-6.
8. Witawat Rungjiratananon, **Yoshihiro Kanamori**, Napaporn Metaaphanon, Yosuke Bando, Bing-Yu Chen, Tomoyuki Nishita: "Animating Strings with Twisting, Tearing and Flicking Effects", Computer Animation and Virtual Worlds, Volume 23, Issue 2, pages 113-124, 2012.
9. Satoshi Iizuka, **Yoshihiro Kanamori**, Jun Mitani, Yukio Fukui: "Efficiently Modeling 3D Scenes from a Single Image", IEEE Computer Graphics and Applications, Vol. 32, No. 6, pp. 18-25, 2012.
10. Satoshi Iizuka, Yuki Endo, Jun Mitani, **Yoshihiro Kanamori**, Yukio Fukui: "An Interactive Design System for Pop-Up Cards with a Physical Simulation," The Visual Computer (Proc. of Computer Graphics International 2011), Volume 27, Numbers 6-8, 605-612, 2011.
11. **Yoshihiro Kanamori**, Zoltan Szego, Tomoyuki Nishita: "Deterministic Blue Noise Sampling by Solving Largest Empty Circle Problems," Journal of IEEEJ, Vol.40, No.1, pp. 6-13, 2011-1.
12. Witawat Rungjiratananon, **Yoshihiro Kanamori**, Tomoyuki Nishita: "Chain Shape Matching for Simulating Complex Hairstyles," Computer Graphics Forum, Volume 29, Issue 8, pages 2438-2446, 2010-12.
13. Simon Heinzle, Johanna Wolf, **Yoshihiro Kanamori**, Tim Weyrich, Tomoyuki Nishita, Markus Gross: "EWA Motion Blur", Computer Graphics Forum (Proc. of Eurographics 2010), Vol.29, No.2, pp.733-742, 2010-5.
14. Makoto Ohta, **Yoshihiro Kanamori**, Tomoyuki Nishita: "Deformation and fracturing using adaptive shape matching with stiffness adjustment," Computer Animation and Virtual Worlds (Proc. of Computer Animation and Social Agents 2009), Vol. 20, Issue 2-3, pp. 365-373, 2009-6.
15. Witawat Rungjiratananon, Zoltan Szego, **Yoshihiro Kanamori**, Tomoyuki Nishita: "Real-time

Animation of Sand-Water Interaction," Computer Graphics Forum (Proc. of Pacific Graphics 2008), Vol. 27, No. 7, pp. 1887-1893.

16. **Yoshihiro Kanamori**, Zoltan Szego, Tomoyuki Nishita: "GPU-based Fast Ray Casting for a Large Number of Metaballs," Computer Graphics Forum (Proc. of Eurographics 2008), Vol. 27, ISSUE 2, No. 3, pp. 351-360, 2008 (CG International Award at NICOGRAPH 2010).
17. **Yoshihiro Kanamori**, Shigeo Takahashi, Tomoyuki Nishita: "An Efficient Up-Sampling Method for Filling Holes on Point-sampled Surfaces," Journal of IEEEJ (In Japanese), Vol.36, No.4, pp.354-361, 2007-7.

International Conferences (refereed):

1. Hiroki Yamada, Masaki Hirose, **Yoshihiro Kanamori**, Jun Mitani and Yukio Fukui, "Image-Based Virtual Fitting System with Garment Image Reshaping," Cyberworlds 2014, Santander, Spain, 2014.
2. Yuto Kase, Jun Mitani, Yukio Fukui and **Yoshihiro Kanamori**, "Flat-Foldable Axisymmetric Structures with Open Edges," In Proc. of 6OSME (The 6th International Meeting on Origami in Science, Mathematics and Education), Tokyo, Japan, 2014.
3. Naoya Tsuruta, Jun Mitani, **Yoshihiro Kanamori** and Yukio Fukui, "Simple Flat Origami Exploration System with Random Folds," In Proc. of 6OSME (The 6th International Meeting on Origami in Science, Mathematics and Education), Tokyo, Japan, 2014.
4. Hugo Akitaya, Jun Mitani, **Yoshihiro Kanamori** and Yukio Fukui, "Generating Folding Sequences from Crease Patterns of Flat-Foldable Origami," In Proc. of 6OSME (The 6th International Meeting on Origami in Science, Mathematics and Education), Tokyo, Japan, 2014.
5. Hugo Akitaya, Jun Mitani, **Yoshihiro Kanamori** and Yukio Fukui, "Curved Origami for Developable Surface Coupling," In Proc. of 6OSME (The 6th International Meeting on Origami in Science, Mathematics and Education), Tokyo, Japan, 2014.
6. Tianyi Wang, Jun Mitani, **Yoshihiro Kanamori** and Yukio Fukui, "A Study on Orthogonal Pleat Tessellation and Its Folding Sequence," In Proc. of 6OSME (The 6th International Meeting on Origami in Science, Mathematics and Education), Tokyo, Japan, 2014.
7. Shuang Tang, Jun Mitani, Yukio Fukui and **Yoshihiro Kanamori**, "Designing Nth Order Rotational Symmetry Origami From 4th Order Symmetric Crease Patterns," In Proc. of 6OSME (The 6th International Meeting on Origami in Science, Mathematics and Education), Tokyo, Japan, 2014.
8. Takuya Imai, **Yoshihiro Kanamori**, Yukio Fukui and Jun Mitani, "Real-Time Screen-Space Liquid Rendering with Two-Sided Refractions," NICOGRAPH International 2014, Visby, Sweden, 2014.
9. **Yoshihiro Kanamori**, "A comparative study of region matching based on shape descriptors for coloring hand-drawn animation," In Proc. of Image and Vision Computing New Zealand (IVCNZ) 2013, pp. 483-488, Wellington, New Zealand, Nov. 27-29, 2013 (poster).
10. Maki Kitamura, **Yoshihiro Kanamori**, Jun Mitani, Yukio Fukui, Reiji Tsuruno, "Motion Frame Omission for Cartoon-like Effects," In Proceedings of International Workshop on Advanced Image Technology (IWAIT) 2014, pp. 148-152, Bangkok, Thailand, Jan. 6-8, 2014.
11. Naoya Tsuruta, Jun Mitani, **Yoshihiro Kanamori**, Yukio Fukui, "A Monte Carlo Method for Exploring Tiny Origami Pieces", International Conference on Simulation Technology (JSST2013), Sep. 11-13, 2013, Tokyo. (Student Presentation Award)
12. Hugo Akitaya, Jun Mitani, **Yoshihiro Kanamori**, Yukio Fukui, "Origami Diagrams and 3D Animation from Flat-Foldable Crease Patterns Sequences", International Conference on

- Simulation Technology (JSST2013), Sep. 11-13, 2013, Tokyo. (Outstanding Presentation Award)
13. Hugo A. Akitaya, Jun Mitani, **Yoshihiro Kanamori**, Yukio Fukui, "Generating Folding Sequences from Crease Patterns of Flat-Foldable Origami," SIGGRAPH 2013 poster, 2013. (ACM Student Research Competition, 1st Place)
 14. Witawat Rungjiratananon, **Yoshihiro Kanamori**, Tomoyuki Nishita, "Fast hair collision handling using slice planes," In Proc. of ACM Symposium on Interactive 3D Graphics and Games (I3D) 2013, pp. 185, San Francisco, Mar. 14-16, 2013. (poster)
 15. Kenjiro NAKAJIMA, Jun MITANI, **Yoshihiro KANAMORI** and Yukio FUKUI, "Path planning for cutting plotters with consideration on avoiding paper jams," Asian Conference on Design and Digital Engineering 2012 (ACDDE 2012), 2012-12.
 16. Naoya TSURUTA, Jun MITANI, **Yoshihiro KANAMORI** and Yukio FUKUI, "Interactive Design of 3D Geometry Made by Bending Inextensible Sheet Material Containing Slits," Asian Conference on Design and Digital Engineering 2012 (ACDDE 2012), 2012-12.
 17. **Yoshihiro Kanamori**, "Region Matching with Proxy Ellipses for Coloring Hand-Drawn Animations," SIGGRAPH Asia 2012 Technical Brief, 2012-11.
 18. Pablo Garcia Trigo, **Yoshihiro Kanamori**, Sei Imai, Yonghao Yue, Tomoyuki Nishita: "Efficient Image Registration for Cartoon Animation," In Proc. of IIEEJ 3rd Image Electronics and Visual Computer Workshop (IEVC 2012), 2012-11.
 19. Kazumasa Nozawa, Yoitsu Takahashi, Yukio Fukui, Jun Mitani, **Yoshihiro Kanamori**: "Development of similarity measures by extracting design features of a shoe last," In Proc. of AHFE International Conference 2012, pp. 7158 - 7166, 2012.
 20. **Yoshihiro Kanamori**, Takeshi Nishikawa, Yonghao Yue, Tomoyuki Nishita: "Visual Simulation of Bubbles in Carbonated Water," NICOGRAPH International 2012, 2012-7 (Best Paper Award).
 21. Witawat Rungjiratananon, **Yoshihiro Kanamori**, Napaporn Metaaphanon, Yosuke Bando, Bing-Yu Chen, Tomoyuki Nishita: "Twisting, Tearing and Flicking Effects in String Animations", In Proc. of Motion In Games, , pages 192-203, 2011-11 (Best Paper Award).
 22. Hiroki Watanabe, **Yoshihiro Kanamori**, Jun Mitani, Yukio Fukui: "An Image-based Hair Styling System Using Layered Texture Pieces", In Proc. of Pacific Graphics 2011, pages 7-12, 2011-09.
 23. Masaki Hirose, Jun Mitani, **Yoshihiro Kanamori**, Yukio Fukui: "An Interactive Design System for Sphericon-based Geometric Toys using Conical Voxels", In Proc. of Smart Graphics 2011, pages 37-47, 2011-7.
 24. Yuki Endo, **Yoshihiro Kanamori**, Jun Mitani, Yukio Fukui: "Weathering effects with geometric details for images," In Proc. of Computer Graphics International 2011, 2011-6.
 25. **Yoshihiro Kanamori**, Nguyen Huu Cuong, Tomoyuki Nishita: "Local Optimization of Distortions in Wide-Angle Images Using Moving Least-Squares", In Proc. of SCCG (Spring Conference on Computer Graphics), pp. 77-82, 2011-4.
 26. Witawat Rungjiratananon, **Yoshihiro Kanamori**, Tomoyuki Nishita: "Elastic Rod Simulation by Chain Shape Matching with Twisting Effect," SIGGRAPH Asia sketch, 2010.
 27. Naoya Tsuruta, Jun Mitani, **Yoshihiro Kanamori**, Yukio Fukui: "A CAD system for drawing origami diagrams combined with a prediction of folding processes," In Proc. of 5OSME (5th International Conference on Origami in Science, Mathematics and Education), 2010-7.
 28. Yuki Endo, **Yoshihiro Kanamori**, Jun Mitani, Yukio Fukui: "An Interactive Design System for Water Flow Stains on Outdoor Images," Lecture Notes in Computer Science (Proc. of Smart Graphics 2010), Volume 6133, pp. 160-171, 2010-6.
 29. Zoltan Szego, **Yoshihiro Kanamori**, Tomoyuki Nishita: "Blue Noise Sampling via Delaunay

- Triangulation," IEVC2010 (IEEE Image Electronics and Visual Computing Workshop 2010), 2010-3 (Best Presentation Award).
30. Nguyen Huu Cuong, **Yoshihiro Kanamori**, Tomoyuki Nishita: "Shape Deformations Using Moving Least-Squares with Topology-Aware Distance Metric," IEVC2010 (IEEE Image Electronics and Visual Computing Workshop 2010), 2010-3.
 31. Yoitsu Takahashi, Noriya Hayashimoto, **Yoshihiro Kanamori**, Jun Mitani, Yukio Fukui, Seiichi Nishihara: "Generating a shoe last shape using Laplacian deformation". VRCAI 2009: 273-274.
 32. **Yoshihiro Kanamori**, Eiji Takaoki, Tomoyuki Nishita: "Eccentric Radial Basis Functions and Applications," SIGGRAPH 2008 Talk.
 33. Witawat Rungjiratananon, **Yoshihiro Kanamori**, Tomoyuki Nishita: "Simulation of Interactions Between Fluids and Granular Materials with Wetting Effects," Proc. of NICOGRAPH International 2008.
 34. **Yoshihiro Kanamori**, Tomoyuki Nishita: "A Novel Upsampling Method for Hole-Free Rendering of Point-Sampled Geometry," Proc. Pacific Graphics 2005, pp.45-47, 2005-10.

(and 79 publications in Japanese)

Grants:

- 2011 – 2013 Grants-in-Aid for Scientific Research (KAKENHI), Grant-in-Aid for Young Scientists (B) #23700101, "Development of Image Editing Tools for Reproducing Real-World Phenomena"
- 2009 – 2011 Grants-in-Aid for Scientific Research (KAKENHI), Research Activity Start-up #21800007, "Development of Fast and High-Quality Visualization Methods for Particle-based Simulations"
- 2008 Visiting Researcher Support Program (Grant # 2008.1.2.001) from International Information Science Foundation (IISF).

Awards (including students' awards):

- 2013, 2014 Best presentation awards (3 times) at Art and Science Forum.
- 2014 Student Presentation Award at JSST2013.
- 2014 Outstanding Presentation Award at JSST2013.
- 2013 ACM Student Research Competition, 1st Place at SIGGRAPH 2013.
- 2012 IPSJ Yamashita SIG Research Award from Information Processing Society of Japan.
- 2012 Best paper award at NICOGRAPH International 2012.
- 2011 Best paper award at Motion in Games 2011.
- 2010 Best presentation award at IEVC2010.
- 2010 – 2013 Research encouraging prizes (3 times) from Japan Society for Graphics Science.
- 2008 – 2013 GCAD awards (10 times) from Information Processing Society of Japan.
- 2008, 2010 Best paper awards (2 times) at NICOGRAPH Spring Annual Conferences.
- 2007 – 2010 Student encouraging prizes (3 times) from Information Processing Society of Japan.

Professional Services:

- Program Committee of IEVC 2014
- Program Committee of SCCG 2014
- Program Committee of SCCG 2013

Financial Chair of NICOGRAPH International 2012
Program Committee of SCCG 2011

Miscellaneous:

Languages: Japanese (native), English (10-year study in Japan), French (2-year study)

Programming: C/C++, Java, Perl, PHP, SQL, Lisp, OCaml, OpenGL, Cg, etc.

Skills: Network/server (Linux, Windows) administration

Hobbies: Singing songs (karaoke), drawing female portraits, etc.

Religion: Buddhism

I hereby declare that the above statements are correct and complete.
August 19, 2014

Yoshihiro Kanamori