Takashi Ijiri

Lecturer,
Media Sensing Lab., Ritsumeikan Univ.

Ph.D
Information Science and Technology

Contact information

E-mail1   : takashi.ijiri80 AT gmail.com

E-mail2   : takashi.ijiri AT media.ritsumei.ac.jp

Address   : 1-1-1, Noji Higashi, Kusatsu, Shiga, 525-8577, Japan.

Education

4 / 2006 – 3 / 2009   Ph.D in Information Science and Technology, the University of Tokyo.

4 / 2004 – 3 / 2006   MS in Information Science and Technology, the University of Tokyo.

4 / 2000 – 3 / 2004   BS in Information Science, Tokyo Institute of Technology.

Research Interests

I am interested in computer graphics, image processing, and user interface in general, especially in interactive 3D modeling and interactive image segmentation. My current subject is easy-to-use interactive techniques for modeling 3D biological objects such as plants, cells, or organs.

Work Experience

4 / 2015 – present   Full time lecturer, Ritsumeikan University

4 / 2012 – 3 / 2015 Special Postdoctoral Researcher, RIKEN

4 / 2013 – 3 / 2015 Visiting Associate Professor, Hokkaido University

4 / 2009 – 3 / 2012 Researcher, RIKEN

6 / 2007 – 9 / 2007 Student intern, Adobe Systems Incorporated

Programming Experiences

Computer languages: C/C++, OpenGL, Java, Java 3D, and Scheme.

Plat forms: Windows and Unix.

Language Skills

Japanese (native) and English (10 yeas of study).

Publications

Journals

M. Morita, T. Tawara, M. Nishimura, S. Yoshizawa, B. Chou, I. Kuroki, **T. Ijiri**, Y. Tsujimura, R. Himeno, and H. Yokota, **Communication Platform for Image Analysis and Sharing in Biology**. *International Journal of Networking and Computing*, 4(2), 369-391, 2014.

D. Ueno, K. Makiyama, H. Yamanaka, **T. Ijiri**, H. Yokota and Y. Kubota: Prediction of open urinary tract in laparoscopic partial nephrectomy by virtual resection plane visualization. *BMC Urology*, 14(47), 2014.

T. Ijiri, S. Yoshizawa, H. Yokota, T. Igarashi. **Flower Modeling via X-ray Computed Tomography**, ACM *Transactions on Graphics*, 33(4), 2014. (SIGGRAPH 2014).

T. Ijiri, S. Yoshizawa, Y. Sato, M. Ito, H. Yokota. **Bilateral Hermite Radial Basis Functions for Contour-based Volume Segmentation.** *Computer Graphics Forum*, 32(2), 123-132, 2013. (EUROGRAPHICS 2013)

T. Ijiri, T. T. Ashihara, N. Umetani, T. Igarashi, R. Haraguchi, H. Yokota, K. Nakazawa. **A Kinematic Approach for Efficient and Robust Simulation of the Cardiac Beating Motion.** *PLoS ONE* 7(5), 2012.

T. Ijiri, H. Yokota. **Contour-based Interface for Refining Volume Segmentation**. *Computer Graphics Forum*, 29(7), 2153-2160, 2010. (Pacific Graphics 2010).

T. Ijiri, K. Takayama, H. Yokota, T. Igarashi. **ProcDef: Local-to-global Deformation for Skeleton-free Character Animation**. *Computer Graphics Forum*, 28(7), 1821-1828, 2009. (Pacific Graphics 2009).

T. Ijiri, R. Měch, G. Miller, T. Igarashi. **An Example-based Procedural System for Element Arrangement**. *Computer Graphics Forum*, 27(2), 429-436, 2008. (EUROGRAPHICS 2008)

T. Ijiri, T. Ashihara, T. Yamaguchi, K. Takayama, T. Igarashi, T. Shimada, T. Namba, R. Haraguchi, K. Nakazawa. **A procedural method for modeling the Purkinje fibers of the heart**. *The Journal of Physiological Science*, 58(7), 481-486, 2008.

K. Takayama, T. Ashihara, **T. Ijiri**, T. Igarashi, R. Haraguchi, K. Nakazawa, **A Sketch-Based Interface for Modeling Myocardial Fiber Orientation that Considers the Layered Structure of the Ventricles**. *The Journal of Physiological Sciences*, 58(7), 487-492, 2008.

K. Takayama, M. Okabe, **T. Ijiri**, T. Igarashi. **Lapped solid textures: filling a model with anisotropic textures**. *ACM Transactions on Graphics*, 27(3), 2008. (ACM SIGGRAPH 2008)

T. Ijiri, S. Owada, T. Igarashi. **Seamless Integration of Initial Sketching and Subsequent Detail Editing in Flower Modeling**. *Computer Graphics Forum*, 25(3), 617-624, 2006. (EUROGRAPHICD 2006)

T. Ijiri, S. Owada, M. Okabe, T. Igarashi, **Floral diagrams and inflorescences: Interactive flower modeling using botanical structural constraints**. *ACM Transactions on Graphics*, 24(3), 720-726, 2005. (ACM SIGGRAPH 2005)

Refereed full papers

M. Morita, T. Tawara, M. Nishimura, S. Yoshizawa, B. Chou, I. Kuroki, **T. Ijiri**, Y. Tsujimura, R. Himeno, and H. Yokota. **Biomedical Image Communication Platform**, In *Proc. of International Symposium on*

Computing and Networking, 281-287, Matsuyama, Japan, 2013.

T. Ijiri, M. Yokoo, S. Kawabata, T. Igarashi. **Surface-based Growth Simulation for Opening Flowers**. In *Proc. Graphics Interface 2008*, 227-234. 2008. Michael A. J. Sweeney Award (best student paper award).

T. Ijiri, S. Owada, T. Igarashi. **Sketch L-System: Global Control of Tree Modeling Using Free-form Stroke**. In *Proc of the 6th International Symposium of SmartGraphics*, 138-146, 2006.

Short papers and posters

Y. Sato, K. Akita, **T. Ijiri**, Y. Tsukada, M. Ito, H. Yokota, N. Saito. **The diversity of pelvic floor by MRI image analysis and histologic reevaluation of its anatomy**. *Asian Association of Clinical Anatomists*, Busan, Korea, November 3-4, 2012.

T. Ijiri, T. Ashihara, N. Umetani, T. Igarashi, R. Haraguchi, H. Yokota, K. Nakazawa, **An Efficient, Robust Framework For Simulating the Beating Heart**, *23rd Conference of the Society for Medical Innovation and Technology*, Tel Aviv, Israel, September 2011.

Y. Sato, **T. Ijiri**, T. Kobayashi, H. Yokota, M. Ito, **Semi-automatic Segmentation Tool for Anal Sphincter Muscles**, 23rd Conference of the Society for Medical Innovation and Technology, Tel Aviv, Israel, September 2011.

M. Okabe, K. Takayama, **T. Ijiri**, T. Igarashi, **Light shower: a poor man's light stage built with an off-the-shelf umbrella and projector**, *ACM SIGGRAPH 2007 sketches*, San Diego, CA, USA, August 2007.

T. Ijiri, K. Takayama, T. Igarashi, T. Ashihara, T. Namba, T. Yamaguchi, T. Shimada, R. Haraguchi, K. Nakazawa, **The use of L-system for modeling Purkinje fibers**. *The 2nd MEI International Symposium: The Worldwide Challenge to Physiome and Systems Biology*, 2007/12/07-09.

T. Ijiri, T. Igarashi, S. Takahashi, E. Shibayama. **Sketch interface for 3D modeling of flowers**, *SIGGRAPH 2004 Sketches and Applications*, Los Angeles, CA, USA, August 2004.

(and others in Japanese)