# Masahiro Hirano

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### Personal Data

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### Research Interests

Geometry Processing and its Application Computer Vision Intelligent Transportation Systems

# Work Experience

Current Research Fellow (DC1)

Apr 2015 *Japan Society for the Promotion of Science*, Japan Three years research fellowship for young scientists.

Apr 2013-Mar 2015 | Technical Assistant at Ishikawa Watanabe Laboratory, The Uni-

versity of Tokyo, Japan

Developed collision avoidance systems based on Networked High-speed Vision

System.

Aug 2013 | Summer Intern at Morgan Stanley MUFG Securities Co., Ltd.,

Japan

Worked with both Sales and Trading team and Technology team in Fixed Income

Division.

### Education

Current Ph.D student in Information Science and Technology

Apr 2015 | Graduate School of Information Science and Technology

The University of Tokyo, Japan Supervisor: Prof. Masatoshi Ishikawa

Apr 2013-Mar 2015 | Master in Information Science and Technology

Graduate School of Information Science and Technology

The University of Tokyo, Japan Supervisor: Prof. Masatoshi Ishikawa

Apr 2009-Mar 2013 | Bachelor in Engineering

School of Engineering

The University of Tokyo, Japan Supervisor: Prof. Koji Tsumura

### **Publications**

#### Journal

1. Masahiro Hirano, Akihito Noda, Masatoshi Ishikawa and Yuji Yamakawa:

Networked High-speed Vision for Evasive Maneuver Assist,

ICT express, Vol.3, No.4, pp.178-182, 2017.

( DOI: https://doi.org/10.1016/j.icte.2017.11.008 )

2. Masahiro Hirano, Yoshihiro Watanabe and Masatoshi Ishikawa:

Closed Curve Blending based on Curvature flow,

IPSJ Journal, Vol.58, No.7, 2017 (in Japanese, recommended paper).

(LINK: http://id.nii.ac.jp/1001/00182656/)

3. Masahiro Hirano, Yoshihiro Watanabe and Masatoshi Ishikawa:

Rapid blending of closed curves based on curvature flow,

Computer Aided Geometric Design (special issue of GMP2017), Vol.52-53C, pp.217-230, 2017.

(DOI: https://doi.org/10.1016/j.cagd.2017.03.005)

#### Conference

1. Masahiro Hirano, Yoshihiro Watanabe, Masatoshi Ishikawa:

Rapid blending of closed curves based on curvature flow,

International Conference on Geometric Modeling and Processing (GMP2017), 2017.

(DOI: https://doi.org/10.1016/j.cagd.2017.03.005)

2. Masahiro Hirano, Yoshihiro Watanabe, Masatoshi Ishikawa:

Closed curve blending based on curvature flow,

The Symposium on Solid & Physical Modeling 2016 (SPM2016), Abstracts, 2016.

(LINK: http://www.k2.t.u-tokyo.ac.jp/members/hirano/spm2016.pdf)

3. Masahiro Hirano, Yoshihiro Watanabe and Masatoshi Ishikawa:

3D Rectification of Distorted Document Image based on Tiled Rectangle Fragments, In Proceedings of the 2014 IEEE International Conference on Image Processing (ICIP2014), pp.2604-2608, 2014.

( DOI: https://doi.org/10.1109/ICIP.2014.7025527 )

4. Masahiro Hirano, Akihito Noda, Yuji Yamakawa and Masatoshi Ishikawa:

Collision avoidance of Intelligent Vehicle based on Networked High-speed Vision System.

In Proceedings of the 11th International Conference on Informatics in Control, Automation and Robotics (ICINCO2014), Vol.2, pp.539-544, 2014.

( DOI: https://doi.org/10.5220/0005100105390544 )

5. Akihito Noda, Masahiro Hirano, Yuji Yamakawa and Masatoshi Ishikawa:

A Networked High-Speed Vision System for Vehicle Tracking,

In Proceedings of the 2014 IEEE Sensors Applications Symposium (SAS2014), pp.343-348, 2014.

(DOI: https://doi.org/10.1109/SAS.2014.6798973)

And nine other domestic conference presentations.

# Awards & Honors

2017 Best Presentation Award

The Society of Instrument and Control Engineers, System Integration Technical Division

2016 IPSJ Yamashita SIG Research Award

Information Processing Society of Japan

Given to presenters of excellent papers in SIG proceedings. Ranked No.1 in computer graphics.

2015 Best Research Presentation Award

Information Processing Society of Japan, SIG. Computer Graphics and Visual Informatics

2015 Scholarship Loan Repayment Exemption for Students with Excellent Record Japan Student Service Organization (JASSO)

# **Teaching Experiences**

### **Teaching Assistant**

Introduction to Design and Automation for Information Physics and Computing (2015,2016) Electronic Circuits II (2015)

Seminar in Information Physics and Computing I (2014, 2015)

Information Physics and Computing Laboratory II (2014)

Information Physics and Computing Laboratory I (2013)

Exercises in Information Physics and Computing I (2013)

# **Scholarships**

Apr 2013-Mar 2015 Japan Student Service Organization (JASSO), Type I Scholarship

Japan Student Service Organization (JASSO), Type II Scholarship

# Languages

English: Fluent Japanese: Native