



## Hiromitsu HATTORI

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**Date of Birth:** 1975/09/16

### **Affiliation:**

College of Information Science and Engineering, Ritsumeikan University

### **Address:**

1-1-1 Nojihigashi, Kusatsu, Shiga 525-8577 JAPAN

(1 Nishinokyo-Suzaku-cho, Nakagyo, Kyoto 604-8520 JAPAN)

### **[Education]**

#### **Ph.D (Doctor of Engineering)**

**2004/03**

Department of Electrical and Computer Engineering, Graduate School of Engineering,  
Nagoya Institute of Technology, JAPAN

Supervisor: Prof. Toramatsu Shintani

#### **M.E. (Master of Engineering)**

**2001/03**

Department of Electrical and Computer Engineering, Graduate School of Engineering,  
Nagoya Institute of Technology, JAPAN

#### **B.E. (Bachelor of Engineering)**

**1999/03**

Department of Intelligence and Computer Science, Nagoya Institute of Technology,  
JAPAN

### **[Appointments]**

#### **Professor**

**2020/04 -**

College of Information Science and Engineering, Ritsumeikan University, JAPAN

#### **Associate Professor**

**2014/04 - 2020/03**

College of Information Science and Engineering, Ritsumeikan University, JAPAN

#### **Assistant Professor**

**2007/04 - 2014/03**

Department of Social Informatics, Graduate School of Informatics, Kyoto University,  
JAPAN

#### **Visiting Scholar**

**2006/01 - 2006/08**

Centre for Collective Intelligence, Sloan School of Management, Massachusetts  
Institute of Technology, USA  
Host faculty: Dr. Mark Klein

#### **Honorary Research Assistant**

**2004/10 - 2005/07**

Department of Computer Science, University of Liverpool, UK  
Host faculty: Prof. Peter McBurney

**Research Fellow****2004/04 - 2007/03**

The Japan Society for the Promotion of Science (JSPS)

**Research Intern****2000/03 - 2000/04**

NTT Communication Science Laboratories, JAPAN

Advisor: Prof. Makoto Yokoo

**[Professional Activities]**

- Board Members
  - The Japanese Society for Artificial Intelligence (JSAI) [[Web](#)]: 2021-
- Program Committee
  - International Joint Conference on Artificial Intelligence (IJCAI)
  - International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS)
  - AAAI Conference on Artificial Intelligence (AAAI)
  - International Conference on Principles and Practice of Multi-Agent Systems (PRIMA)
  - The Pacific-Rim International Conferences on Artificial Intelligence (PRICAI) [[Web](#)]
  - International Conference on Industria and Engineering Applications of Artificial Intelligence and Expert Systems (IEA/AIE)
- Organizing/Program/Workshop Chair
  - Co-Organizer, Joint Workshop of the 1st International Workshop on Data Oriented Constructive Mining and Multi-Agent Simulation (DOCMAS) and 5th International Workshop on Massively Multi-Agent Systems: Models, Methods, and Tools (MMAS), Taipei, Taiwan, May 2, 2011
  - Co-Organizer, Digital Cities 6: Concepts, Methods and Systems of Urban Informatics, Pennsylvania, USA, June 24, 2009
  - Co-Organizing Chair, The 1st International Workshop on Agent-based Complex Automated Negotiations (ACAN-2008), Estoril, Portugal, May 12, 2008
  - Co-Organizer, The 3rd International Workshop on Rational, Robust, and Secure Negotiations in Multi-Agent Systems (RRS-2007), Silicon Valley, USA, November 5, 2007
  - Co-Organizer, The 2nd International Workshop on Rational, Robust, and Secure Negotiations in Multi-Agent Systems (RRS-2006), Hakodate, Japan, May 8, 2006
  - Co-Organizer, The 1st International Workshop on Rational, Robust, and Secure Negotiations in Multi-Agent Systems (RRS-2005), Utrecht, Netherlands, July 25, 2005
- Tutorial/School
  - Agent School Chair, Agent School on Autonomous Agents and Multi-Agent Systems, Nagoya Institute of Technology, Nagoya, Japan, December 12, 2009
  - Agent School Chair, Agent School on Autonomous Agents and Multi-Agent Systems, Vietnam National University, Hanoi, Vietnam, December 11-12, 2008
  - Tutorial, "Complex Negotiations for Intractable Problems", AAMAS-2008, Estoril, Portugal, May 13, 2008

**[Memberships]**

- Japanese Society for Artificial Intelligence (JSAI)
- Information Processing Society of Japan (IPSJ)

- The Institute of Electronics, Information and Communication Engineers (IEICE)
- Association for Computing Machinery (ACM)

## **[Grants and Scholarships]**

1. **Ministry of Land, Infrastructure, Transport and Tourism (MLIT): Grants for Advanced Road Technology [2021/04 - 2024/03]**
  - **Title:** Research on Automated Turn-Determination and Permitted Road Network Planning
  - **Role:** Project Member (2021/04 - )
  - **Budget:** 10,090,000 JPY
2. **Japan Society for the Promotion of Science (JSPS): Grant-in-Aid for Challenging Exploratory Research [2021/07 - 2024/03]**
  - **Title:** Interdisciplinary Research for the Ethical Transformation of Cities - Sustainability, Information, Resilience, Food, and Economics -
  - **Role:** Project Member (2021/07 - )
  - **Budget:** 1,800,000 JPY
3. **Japan Society for the Promotion of Science (JSPS): Grant-in-Aid for Challenging Exploratory Research [2019/09 - 2022/03]**
  - **Title:** Multiagent Simulation-based Legislation for Designing AI Society
  - **Role:** Project Leader (2019/09 - )
  - **Budget:** 3,200,000 JPY
4. **Japan Society for the Promotion of Science (JSPS): Grant-in-Aid for Scientific Research (B) [2019/04 - 2022/03]**
  - **Title:** Optimizing Traffic Flow by Controlling Interventional Behavior of Automated Vehicles
  - **Role:** Project Member (2019/04 - )
  - **Budget:** 2,000,000 JPY
5. **Ministry of Education, Culture, Sports, Science and Technology (MEXT): Grants for Development of Application toward Post-K Super Computer [2016/07 - 2020/03]**
  - **Title:** Studies of Multi-Level Spatiotemporal Simulation of Socioeconomic Phenomena
  - **Role:** Project Member (2016/07 - 2020/03)
  - **Budget:** 6,600,000 JPY
6. **Japan Science and Technology Agency (JST): Strategic Basic Research Programs [2016/10 - 2020/03]**
  - **Title:** Studies of Supporting Idea-generation based on Diverse Values and Research Team Building
  - **Role:** Project Member (2016/07 - 2020/03)
  - **Budget:** 26,800,000 JPY
7. **Japan Society for the Promotion of Science: Grant-in-Aid for Challenging Exploratory Research [2015/04 - 2017/03]**
  - **Title:** Foundation of Dialogues and Values of Norm, Ethics, System for AI
  - **Role:** Project Member (2015/04 - 2017/03)
  - **Budget:** 800,000 JPY
8. **Japan Science and Technology Agency (JST): Strategic Basic Research Programs CREST [2012/10 - 2018/03]**
  - **Title:** CASSIA: Comprehensive Architecture of Social Simulation for Inclusive Analysis
  - **Role:** Project Member (2012/10 - 2018/03)
  - **Budget:** 22,000,000 JPY
9. **Japan Society for the Promotion of Science: Grant-in-Aid for Challenging Exploratory Research [2012/04 - 2014/03]**

- **Title:** Development of Technologies to Predict the Effects of Renewable Energy Introduction using Multi-agent Simulation
  - **Role:** Project Leader (2012/04 - 2014/03)
  - **Budget:** 3,900,000 JPY
10. **Japan Society for the Promotion of Science (JSPS): Grants-in-Aid for Young Scientists (B)**  
**[2009/04 - 2012/03]**  
 "Human Behavior Modeling for Massively Traffic Simulation"  
 Project Leader (2009/04 - 2012/03)  
 3,300,000 JPY
  11. **Japan Society for the Promotion of Science (JSPS): Grants-in-Aid for Scientific Research (A)**  
**[2009/04 - 2012/03]**  
 "Service Computing for Collective Intelligence"  
 Project Member (2009/04 - 2012/03)  
 36,200,000 JPY
  12. **Strategic Information and Communications R&D Promotion Programme from Ministry of Internal Affairs and Communications**  
**[2009/06 - 2012/03]**  
 "Service Computing for Multilingual Service"  
 Project Member (2009/06 - 2012/03)  
 68,694,000 JPY
  13. **Japan Society for the Promotion of Science (JSPS): Grants-in-Aid for Scientific Research (A)**  
**[2006/04 - 2009/03]**  
 "Participatory Design based on Massively Multi-Agent Systems"  
 Project Member (2007/04 - 2009/03)  
 37,400,000 JPY
  14. **Strategic Information and Communications R&D Promotion Programme from Ministry of Internal Affairs and Communications**  
**[2005/04 - 2008/03]**  
 "Meganavigation Technologies for Ubiquitous Network Societies"  
 Project Member (2007/04 - 2008/03)  
 51,231,000 JPY
  15. **Research Grant for Young Researchers: NEC C&C Foundation**  
**[2008/01 - 2010/01]**  
 "Robust Multi-Agent Negotiation Protocol with Linear Utility Functions"  
 2,000,000 JPY
  16. **Research Grant: Artificial Intelligence Research Promotion Foundation**  
**[2008/01 - 2009/03]**  
 "Agent Modeling for Massively Traffic Simulation"  
 600,000 JPY
  17. **Research Grant: Kayamori Foundation of Informational Science Advancement**  
**[2008/01 - 2009/06]**  
 "Agent Modeling for Massively Multiagent Simulation"  
 900,000 JPY
  18. **Japan Society for the Promotion of Science (JSPS): Grants-in-Aid for Scientific Research [2004/04 - 2007/03]**  
 "Mechanism for Reaching an Agreement among Multiple Agents under Uncertainty"  
 3,500,000 JPY

19. **Grants for Travel Expense: The Research Foundation for the Electro Technology of Chubu (REFEC)**  
[2004/08]  
150,000 JPY
20. **Grants for Travel Expense: The Tatematsu Foundation**  
[2004/08]  
200,000 JPY
21. **Grants for Travel Expense: NEC C&C Foundation**  
[2003/06]  
180,000 JPY
22. **Grants-in-Aid of Scientific Research: The Foundation for the Fusion of Science and Technology**  
[2003/04 - 2004/03]  
"Research on Argumentation-based Negotiation for Reaching an Agreement"
23. **Grants for Travel Expense: The Telecommunications Advancement Foundation (TAF)**  
[2002/07]  
230,000 JPY
24. **Grants-in-Aid of Scientific Research: The Daiko Foundation**  
[2002/04 - 2003/03]  
"Research on Multiagent Negotiation Protocol for Trading Support"  
360,000 JPY
25. **Grants for Travel Expense: The Research Foundation for the Electro Technology of Chubu (REFEC)**  
[1999/11]  
150,000 JPY

## **[Areas of Interest]**

Multiagent Systems (Multiagent Simulation; Multiagent Negotiation), Social Simulation, AI-aided Communication Support, Design, ELSI (Ethical, Legal and Social Issues), Agent-based Group Decision Support

## **[Publications]**

### **International Conference:**

1. Kingetsu, H. and **Hattori, H.**: Multi-layered Traffic Viewer for Strategic Decision Making. Proc. of the 12th International Conference on Knowledge, Information, and Creativity Support System (KICSS-2017), 2017
2. Hirotaka OSAWA, Arisa EMA, **Hiromitsu HATTORI**, Naonori AKIYA, Nobutsugu KANZAKI, Akinori KUBO, Tora KOYAMA, Ryutaro ICHISE. Analysis of Robot Hotel: Reconstruction of Works with Robots. 26th IEEE International Symposium on Robot and Human Interactive Communication (RO-MAN 2017), 2017
3. Kingetsu, H. and **Hattori, H.**: Multi-Agent Traffic Simulations with Taxi Agents based on Probe-Car Data. The 19th International Conference on Principles and Practice of Multi-Agent Systems (PRIMA-2016), August 22-26, 2016
4. Arisa EMA, **Hiromitsu HATTORI**, Hirotaka OSAWA, Naonori AKIYA. Ethics and Social Responsibility: Case Study of a Journal Cover Design Under Fire. CHI-2015, April 18-23, 2015
5. Yuu Nakajima, Shohei Yamane, and **Hiromitsu Hattori**. Multi-model based Simulation Platform for Urban Traffic Simulation. The 13th International Conference on

- Principles of Practice in Multi-Agent Systems (PRIMA-2010), Springer-Verlag, pp. 416-427, Kolkata, India, November 15, 2010
6. Yuu Nakajima, Yoshiyuki Nakai, **Hiromitsu Hattori**, and Toru Ishida. Citywide Traffic Simulation Platform with Precise Driver Model. The 12th International Conference on Principles of Practice in Multi-Agent Systems (PRIMA-2009), Lecture Notes in Artificial Intelligence (LNAI 5925), Springer-Verlag, pp. 459--470, Nagoya, Japan, December 15, 2009
  7. Shohei Yamane, Shoichi Sawada, **Hiromitsu Hattori**, Marika Odagaki, Kengo Nakajima, and Toru Ishida. Participatory Simulation Environment gumonji/Q: A Network Game Empowered by Agents. The 12th International Conference on Principles of Practice in Multi-Agent Systems (PRIMA-2009), Lecture Notes in Artificial Intelligence (LNAI 5925), Springer-Verlag, pp. 416--427, Nagoya, Japan, December 16, 2009
  8. **Hiromitsu Hattori**, Yuu Nakajima, and Toru Ishida. Agent Modeling with Individual Human Behaviors. In the Proc. of the 8th International Conference on Autonomous Agents and Multiagent Systems (AAMAS-2009), pp. 1369--1370, Budapest, Hungary, May 13, 2009 (poster paper)
  9. Shoichi Sawada, **Hiromitsu Hattori**, Marika Odagaki, Kengo Nakajima, and Toru Ishida. Participatory Simulation Platform Using Network Games. The 11th Pacific Rim International Conference on Multi-Agents (PRIMA-2008), Lecture Notes in Artificial Intelligence (LNAI 5357), Springer-Verlag, pp. 357--369, Hanoi, Vietnam, December 16, 2008
  10. Toru Ishida, Akiyo Nadamoto, Yohei Murakami, Rieko Inaba, Tomohiro Shigenobu, Shigeo Matsubara, **Hiromitsu Hattori**, Yoko Kubota, Takao Nakaguchi, and Eri Tsunokawa. A Non-Profit Operation Model for the Language Grid. In the Proc. of the 1st International Conference on Global Interoperability for Language Resources (ICGL-2008), pp. 114--121, HongKong, China, January 9, 2008
  11. **Hiromitsu Hattori**, Mark Klein, and Takayuki Ito. A Multi-Phase Protocol for Negotiation with Interdependent Issues. In the Proc. of the 2007 IEEE/WIC/ACM International Conference on Intelligent Agent Technology (IAT-2007), pp. 153--159, Silicon Valley, USA, November 3, 2007
  12. Yusuke Tanaka, Yuu Nakajima, **Hiromitsu Hattori**, and Toru Ishida. A Driver Modeling Methodology Using Hypothetical Reasoning for Multiagent Traffic Simulation. The 10th Pacific Rim International Conference on Multi-Agents (PRIMA-2007), Lecture Notes in Artificial Intelligence (LNAI 5044), Springer-Verlag, pp. 288--297, Bangkok, Thailand, May 28, 2007
  13. **Hiromitsu Hattori**, Mark Klein, and Takayuki Ito. Using Iterative Narrowing to Enable Multi-Party Negotiations with Multiple Interdependent Issues. In the Proc. of the 6th International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS-2007), pp. 1043--1045, Honolulu, USA, May 18, 2007 (poster paper)
  14. Takayuki Ito, **Hiromitsu Hattori**, and Mark Klein. Multi-issue Negotiation Protocol for Agents: Exploring Nonlinear Utility Spaces. In the Proc. of the 20th International Joint Conference on Artificial Intelligence (IJCAI-2007), pp. 1347--1352, Hyderabad, India, January, 2007
  15. Takayuki Ito, Mark Klein, and **Hiromitsu Hattori**. A Negotiation Protocol for Agents with Nonlinear Utility Functions. In the Proc. of the 21st National Conference on Artificial Intelligence (AAAI-2006), Boston, USA, July 19, 2006 (poster paper)

16. **Hiromitsu Hattori**, Takayuki Ito, Tadachika Ozono, and Toramatsu Shintani. A Nurse Scheduling System based on Dynamic Constraint Satisfaction Problem. The 18th International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems (IEA/AIE-2005), Lecture Notes in Computer Science (LNCS 3533), Springer-Verlag, pp. 799--808, Bari, Italy, June 23, 2005
17. Takafumi Yamaya, Toramatsu Shintani, Tadachika Ozono, Yusuke Hiraoka, **Hiromitsu Hattori**, Takayuki Ito, Naoki Fukuta, and Kyoji Umemura. MiNet: Building Ad-Hoc Peer-to-Peer Networks for Information Sharing Based on Mobile Agents. In the Proc. of the 5th International Conference on Practical Aspects of Knowledge Management (PAKM-2004), pp. 59--70, Vienna, Austria, December 2, 2004
18. **Hiromitsu Hattori**, Toramatsu Shintani, Atsushi Isomura, Takayuki Ito, and Tadachika Ozono. Stable Solutions dealing with Dynamics in Scheduling based on Dynamic Constraint Satisfaction Problems. In the Proc. of the 8th Pacific Rim International Conference on Artificial Intelligence (PRICAI-2004), pp. 989--990, Auckland, New Zealand, August, 2004 (poster abstract)
19. **Hiromitsu Hattori**, Tadachika Ozono, Takayuki Ito, and Toramatsu Shintani. Coalition Formation among Agents in Complex Problems based on a Combinatorial Auction Perspective. The 17th International Conference on Industrial and Engineering Applications of Artificial Intelligence and Expert Systems (IEA/AIE-2004), Lecture Notes in Computer Science (LNCS 3029), Springer-Verlag, pp. 176--187, Ottawa, Canada, May, 2004
20. Noriharu Tashiro, **Hiromitsu Hattori**, Takayuki Ito, and Toramatsu Shintani. Implementing a Proxy Agent based Writable Web for a Dynamic Information Sharing System. In the Proc. of the 13th International World Wide Web Conference (WWW-2004), pp. 256--257, New York, USA, May, 2004 (poster abstract)
21. Toshihiro Yamaguchi, **Hiromitsu Hattori**, Takayuki Ito, and Toramatsu Shintani. On a Web Browsing Support System with 3D Visualization. In the Proc. of the 13th International World Wide Web Conference (WWW-2004), pp. 316--317, New York, USA, May, 2004 (poster abstract)
22. **Hiromitsu Hattori**, Tadachika Ozono, and Toramatsu Shintani. Applying a Combinatorial Auction Protocol to a Coalition Formation among Agents in Complex Problems. In the Proc. of the 2nd International Joint Conference on Autonomous Agents and Multiagent Systems (AAMAS-2003), pp. 1008--1009, Melbourne, Australia, July, 2003 (poster abstract)
23. **Hiromitsu Hattori**, Tadachika Ozono, Takayuki Ito, and Toramatsu Shintani. An Automated Budget Allocation Mechanism for Simultaneous Multiple Bidding. The 18th National Conference on Artificial Intelligence (AAAI-2002), Edmonton, Canada, July, 2002 (poster abstract)
24. **Hiromitsu Hattori**, Ryota Yamada, Tadachika Ozono, and Toramatsu Shintani. A Multiple-Bidding Support Framework for Bidding and Browsing Information. In the Proc. of the 11th International World Wide Web Conference (WWW-2002), Honolulu, USA, May, 2002 (poster abstract)
25. Takayuki Ito, **Hiromitsu Hattori**, and Toramatsu Shintani. Incentive Compatibility on Multiple Internet Auctions based on Bidding Support Agents. In the Proc. of the 11th International World Wide Web Conference (WWW-2002), Honolulu, USA, May, 2002 (poster abstract)

26. Ryota Yamada, **Hiromitsu Hattori**, Takayuki Ito, and Toramatsu Shintani. Multi-Hammer: A Virtual Auction System based on Information Agents. In the Proc. of the Pacific Asian Conference on Intelligent Systems 2001 (PAIS-2001), pp. 73--77, Seoul, Korea, November, 2001
27. Takayuki Ito, **Hiromitsu Hattori**, and Toramatsu Shintani. A Cooperation Mechanism among Seller Agents based on Exchanging Goods in Agent-mediated Electronic Commerce. In the Proc. of the Pacific Asian Conference on Intelligent Systems 2001 (PAIS-2001), pp. 89--96, Seoul, Korea, November, 2001
28. **Hiromitsu Hattori**, Takayuki Ito, Tadachika Ozono, and Toramatsu Shintani. A Hierarchical Coalition Formation Mechanism using Argumentation-based Negotiation for Group Decision Making. In the Proc. of the 2nd International Conference on Software Engineering, Artificial Intelligence, Networking & Parallel/Distributed Computing (SNPD-2001), pp. 326--331, Nagoya, Japan, August, 2001
29. **Hiromitsu Hattori**, Makoto Yokoo, Yuko Sakurai, and Toramatsu Shintani. A Dynamic Programming Model for Determining Bidding Strategies in Sequential Auctions: Quasilinear Utility and Budget Constraints. In the Proc. of the 17th International Conference on Uncertainty in Artificial Intelligence (UAI-2001), pp. 211--218, Seattle, USA, August, 2001
30. **Hiromitsu Hattori**, Takayuki Ito, Tadachika Ozono, and Toramatsu Shintani. An Approach to Coalition Formation using Argumentation-based Negotiation in Multi-Agent Systems. The 14th International Conference on Industrial & Engineering Applications of Artificial Intelligence & Expert Systems (IEA/AIE-2001), Lecture Notes in Computer Science (LNCS 2070), Springer-Verlag, pp. 687--696, Budapest, Hungary, June, 2001
31. **Hiromitsu Hattori**, Makoto Yokoo, Yuko Sakurai, and Toramatsu Shintani. Determining Bidding Strategies in Sequential Auctions: Quasi-linear Utility and Budget Constraints. In the Proc. of the 5th International Conference on Autonomous Agents (Agents-2001), pp. 83--84, Montreal, Canada, May, 2001 (poster abstract)
32. **Hiromitsu Hattori**, Takayuki Ito, and Toramatsu Shintani. An Approach to Improving Quality and Facilitating Consensus in Negotiation Among Agents. In the Proc. of the IASTED International Conference, Intelligent Systems and Control (ISC-99), pp. 252--257, Santa Barbara, USA, October, 1999

#### Journals:

1. Nishi, T., Ogawa, Y., Taka, F., Takano, M., Morishita, S., **Hattori, H.**: Morality-based Analysis of Viewer's Comments on Internet TV News Program, Transactions of the Japanese Society for Artificial Intelligence, Vol. 36, No. 1, WI2-E\_1 – 9, 2021 (*in Japanese*)
2. Kingetsu, H., **Hattori, H.**: Investigation of the Potential of Multi-Agent Traffic Simulations to Find Good Arrangement of Taxies, Transactions of the Japanese Society for Artificial Intelligence, Vol. 34, No. 3, pp. C-IA2\_1-9, 2019 (*in Japanese*)
3. Arisa EMA, Hirotaka OSAWA, Reina SAIJO, Akinori KUBO, Takushi OTANI, **Hiromitsu HATTORI**, Naonori AKIYA, Nobutsugu KANZAKI, Minao KUKITA, Kazunori KOMATANI, Ryutaro ICHISE. Clarifying Privacy, Property, and Power: Case Study on Value Conflict Between Communities. Proceedings of the IEEE, Vol. 107, No. 3, pp. 575-581, 2019



4. Noda, I., Murase, Y., Ito, N., Izumi, K., **Hattori, H.**, Kamada, T., Mizuta, H., Takeuchi, M.: Project CASSIA – Framework for Exhaustive and Large-Scale Social Simulation -, Advanced Software Technologies for Post-Peta Scale Computing, Springer, PP. 271–299, 2019.
5. Yoshizoe, M., **Hattori, H.**, Ema, A., Osawa, H., Kanzaki, S.: Values Awareness Support - Visualization of the Discussion -. Journal of science and technology studies, No. 16, pp. 120-132, 2018 (*in Japanese*)
6. Kingetsu, H., **Hattori, H.**: Modeling Individual Strategies of Taxis using Probe-Data and its Application to Traffic Simulations. IPSJ Journal, Vol. 59, No. 5, 2018 (*in Japanese*)
7. Noda, I., Ito, N., Izumi, K., Mizuta, H., Kamada, T., and **Hattori, H.**: Roadmap and research issues of multiagent social simulation using high-performance computing. Journal of Computational Social Science, Vol. 1, Issue. 1, pp. 155-166, 2018
8. **Hattori, H.**, Jumi, S., Nakajima, Y.: Exploring Potential for Social System Design Using Multi-Agent Simulations. IEICE TRANSACTIONS on Information and Systems, Vol. J100-D, No. 2, pp.180-193, 2017 (*in Japanese*)
9. Arisa EMA, Naonori AKIYA, Hirotaka OSAWA, **Hiromitsu HATTORI**, Shinya OIE, Ryutaro ICHISE, Nobutsugu KANZAKI, Minao KUKITA, Reina SAIJO, Otani TAKUSHI, Naoki MIYANO, and Yoshimi YASHIRO. Future Relations between Humans and Artificial Intelligence – A Stakeholder Opinion Survey in Japan -. IEEE Technology and Society Magazine, Vol. 35, No. 4, pp. 68-75, 2016
10. **Hiromitsu Hattori**, Yuu Nakajima, and Shohei Yamane. Massive Multiagent-based Urban Traffic Simulation with Fine-Grained Behavior Models. Journal of Advanced Computational Intelligence and Intelligent Informatics (JACIII), Vol. 15, No. 2, Fuji Technology Press, pp. 233--239, March, 2011
11. **Hiromitsu Hattori**, Yuu Nakajima, and Toru Ishida. "Learning from Humans: Agent Modeling with Individual Human Behaviors. IEEE Transactions on Systems, Man, and Cybernetics-Part A: Systems and Humans, Vol. 41, No. 1, IEEE , pp. 1--9, January, 2011
12. Toru Ishida, and **Hiromitsu Hattori**. Participatory Technologies for Designing Ambient Intelligence Systems. Journal of Ambient Intelligence and Smart Environments, Vol. 1, No. 1, pp. 39--45, January, 2009
13. **Hiromitsu Hattori**, and Takayuki Ito. A Quick Adaptation Method for Constraint Satisfaction in a Real-time Environment. International Journal of Computer Science and Network Security, Vol. 6, No. 7B, pp. 107--112, July, 2006
14. Takayuki Ito, **Hiromitsu Hattori**, and Toramatsu Shintani. A Cooperative Exchanging Mechanism among Seller Agents for Group-based Sales. International Journal of Electronic Commerce Research and Applications (ECRA), Elsevier Science, Vol. 1, No. 2, pp. 138--149, August, 2002

#### Area Papers in Journals:

1. Ema, A., Akiya, N., Osawa, H., **Hattori, H.**, Oie, S., Ichise, R., Kanzaki, N., Kukita, M., Saijo, R., Takushi, O., Miyano, N., and Yashiro, Y.: Future Relations between Humans and Artificial Intelligence – A Stakeholder Opinion Survey in Japan. IEEE Technology and Society Magazine, Vol. 35, Issue 4, pp. 68-75, 2016
2. Kiyoshi Izumi, Keiki Takadama, Hiromitsu Hattori, Nariaki Nishino, and Itsuki Noda. Social and Group Simulation based on Real Data Analysis. Journal of Advanced

### **Symposiums/Workshops/Demo Sessions:**

1. Nishiura, T. and **Hattori, H.**: Exploring Parameters for Generating Semi-Realistic Traffic Flow with Data Assimilation Approach. Proc. of the 25th International Symposium on Artificial Life and Robotics (AROB 25th 2020), pp. 909-912, 2020
2. **Hiromitsu Hattori** and Hiroaki Kingetsu: Multi-Agent Simulations for Finding Reasonable Taxi Hilling Strategies. Proc. of the 23rd International Symposium on Artificial Life and Robotics 2018 (AROB-2018), pp. 776-779, 2018
3. Hirotaka OSAWA, Arisa EMA, Naonori AKIYA, **Hiromitsu HATTORI**, Nobutsugu KANZAKI, Akinori KUBO, Tora KOYAMA, Ryutaro ICHISE. Analysis of Robot Hotel: Reconstruction of Works by Robots. Asian CHI Symposium in CHI 2017, 2017
4. Arisa EMA, Hirotaka OSAWA, **Hiromitsu HATTORI**, Naonori AKIYA, Nobutsugu KANZAKI, Ryutaro ICHISE, Minao KUKITA, Takushi OTANI, Akinori KUBO, Kazunori KOMATANI, Reina SAIJO, Mikihiro TANAKA, Koziro HONDA, Naoki MIYANO, Yoshimi YASHIRO, Go YOSHIZAWA. Breaking Down Silos: Involving Various Researchers for Driving HCI Research. alt.CHI-2017, 2017
5. Itsuki Noda, Nobuyasu Ito, Kiyoshi Izumi, Tomohisa Yamashita, Hideki Mizuta, Tomio Kamada, Yohsuke Murase, Sachiko Yoshihama, **Hiromitsu Hattori**: Roadmap for Multiagent Social Simulation on HPC. The 3rd International Workshop on Data Oriented Constructive Mining and Multi-Agent Simulation (DOC-MAS-2015), December 6, 2015
6. **Hiromitsu Hattori**, Yuu Nakajima, and Toru Ishida. Modeling Individual Driving Behaviors for Multiagent Traffic Simulation. In the Proc. of the 6th Workshop on Agents in Traffic and Transportation (ATT-2010), pp. 5-11, Toronto, Canada, May 11, 2010
7. Mario Paolucci and **Hiromitsu Hattori**. Traffic Simulations with Emotional Effects: A Proposal for Core Affect Contagion. In the Proc. of the 6th Workshop on Agents in Traffic and Transportation (ATT-2010), pp. 97-102, Toronto, Canada, May 11, 2010
8. Yuu Nakajima, Shohei Yamane, **Hiromitsu Hattori**, Toru Ishida. Evacuation Guide System based on Massively Multiagent System. In the Proc. of the 7th International Conference on Autonomous Agents and Multiagent Systems (AAMAS-08), pp. 1653--1654, Estoril, Portugal, May 15, 2008 (demo paper)
9. Takayuki Ito, Mark Klein, and **Hiromitsu Hattori**. A Multi-Issue Negotiation Protocol among Nonlinear Utility Agents : A Preliminary Report. In the Proc. of the 2nd International Workshop on Rational, Robust, and Secure Negotiations in Multi-agent Systems (RRS-2006), pp. 25--35, Hakodate, Japan, May 8, 2006

### **Chapters in Books:**

1. **Hiromitsu Hattori**, Tadachika Ozono, Toramatsu Shintani. Coalition Formation among Agents in Complex Problems based on a Combinatorial Auction Perspective. Architectural Design of Multi-Agent Systems: Technologies and Technique, Hong Lin (Eds.), Idea Group Inc., May, 2007

### **Post-Proceedings:**

1. **Hiromitsu Hattori**, Takahiro Kawamura, Tsuyoshi Ide, Makoto Yokoo (Eds.). New Frontiers in Artificial Intelligence: JSAI 2008 Conference and Workshops. Lecture

- Notes in Computer Science/Lecture Notes in Artificial Intelligence (LNAI 5447), Springer-Verlag, April, 2009
2. Takayuki Ito, **Hiromitsu Hattori**, Minjie Zhang, Tokuro Matsuo (Eds.). Rational Robust, and Secure Negotiations in Multi-Agent Systems. Studies in Computational Intelligence (SCI) 89, Springer-Verlag, June, 2008
  3. Takayuki Ito, **Hiromitsu Hattori**, Minjie Zhang, Tokuro Matsuo (Eds.). Rational Robust, and Secure Negotiations in Multi-Agent Systems. IEEE Computer Society, May, 2005

#### **Articles:**

1. Takayuki Ito, Mark Klein, **Hiromitsu Hattori**. An Auction-Based Negotiation Protocol for Agents with Nonlinear Utility Functions. ROMA-2006-2, Massachusetts Institute of Technology, February, 2006

#### **[Awards and Honors]**

1. JSAI Incentive Award: Modeling Taxi Agent based on Probe-Car Data for City-Wide Multi-Agent Traffic Simulations (Hiroaki KINGETSU and Hiromitsu HATTORI). 2016
2. Students Research Encouraging Award, The 73rd IPSJ National Convention, March, 2011
3. Nominee of the Best Paper Award, Joint Agent Workshops and Symposiums 2006 (JAWS-2006), October, 2006
4. Best paper Award for Young Researcher (Top 10 younger researchers' papers in 1,000 papers), The 66th IPSJ National Convention, March, 2004
5. Students Research Encouraging Award, The 66th IPSJ National Convention, March, 2004
6. Students Paper Award, The Tokai Regional Section of the Information Processing Society of Japan, May 2003
7. Students Research Award, The Tokai Regional Section of the Institute of Electronics, Information and Communication Engineers, May, 2002
8. TELECOM System Technology Student Award, The Telecommunications Advancement Foundation (TAF), March 2002

#### **[Dissertation]**

##### **Title: Electronic Commerce Support based on Multi-Agent Systems**

Department of Electrical and Computer Engineering, Graduate School of Engineering, Nagoya Institute of Technology, JAPAN

#### **[Invited Talks]**

1. "Multi-Agent Simulation for Understanding Fields in the Real-world," Sony Corporation Shinagawa Technology Center, Tokyo, Japan, November 8, 2010
2. "Participatory Multiagent Simulations as a Field for Understanding Humans Behaviors," University of Bologna, Italy, March 15, 2010
3. "Participatory Multiagent Simulation for Human Behavior Modeling," Technical University Berlin, Germany, March 16, 2009
4. "Participatory Multiagent Simulation and Agent Modeling," Manchester Metropolitan University, UK, March 7, 2008
5. "Multiagent Systems in Complex Multi-Issue Negotiations and Participatory Simulation Environment," SEN4 research group seminar, CWI, Netherlands, March 4, 2008
6. "Participatory Multiagent Simulation for Modeling Human Behaviors," 2007 RES-CUE distinguished lecture series, UC Irvine, USA, November 8, 2007
7. "How to solve intractable problems?," Ishida Lab. Seminar, Kyoto University, Japan, January 24, 2007

8. "Solution Stability in Dynamic Weighted Maximal CSP and Preliminary Report on an Argumentation-based Negotiation Method," AgentART Group Seminar, University of Liverpool, UK, July 8, 2005