

ながい ゆきえ
長井 志江, 博士 (工学)

情報通信研究機構 脳情報通信融合研究センター
〒565-0871 大阪府吹田市山田丘1-4
Tel: 080-9098-3259
Email: yukie@nict.go.jp
Homepage: <http://developmental-robotics.jp>



生年月日

1974年11月9日生.

日本国籍.

職歴

大阪大学大学院工学研究科 招へい准教授兼任, 2018年4月-現在.
情報通信研究機構脳情報通信融合研究センター 主任研究員, 2017年5月-現在.
ビーレフェルト大学 CITEC 客員教授兼任, 2017年1月-現在
大阪大学大学院工学研究科 特任准教授, 2009年10月-2017年4月.
ビーレフェルト大学 客員研究員兼任, 2009年10月-2016年12月.
京都工芸繊維大学大学院工芸科学研究科 非常勤講師兼任, 2015年4月-2015年9月.
ビーレフェルト大学認知ロボティクス研究所 ポスドク研究員, 2008年2月-2009年9月.
ビーレフェルト大学テクノロジー学科 ポスドク研究員, 2006年4月-2008年1月.
情報通信研究機構けいはんな情報通信融合研究センター 専攻研究員, 2004年4月-2006年3月.
東京農工大学工学部 非常勤講師兼任, 2003年12月-2004年3月.
大阪大学大学院工学研究科 産学官連携研究員, 2002年11月-2004年3月.

学歴

大阪大学 博士 (工学) 取得, 2004年3月.
大阪大学大学院工学研究科知能・機能創成工学専攻博士後期課程単位取得退学, 2002年10月.
青山学院大学大学院理工学研究科機械工学専攻博士前期課程修了 修士 (工学) 取得, 1999年3月.
青山学院大学理工学部機械工学科卒業 学士 (工学) 取得, 1997年3月.
群馬県立高崎女子高等学校普通科卒業, 1993年3月.

受賞歴

- [1] Best Student Paper Award of the 5th International Conference on Human-Agent Interaction, 2017年10月.
- [2] 第30回人工知能学会全国大会 全国大会優秀賞, 2017年5月.
- [3] Babybot Challenge 1st Place Award of the 5th IEEE International Conference on Development and Learning and on Epigenetic Robotics, 2015年8月.

- [4] ロボカップジャパンオープン 2015 人工知能学会賞, 2015 年 5 月.
- [5] 日本認知科学会第 31 回大会 大会発表賞, 2014 年 11 月.
- [6] 大阪大学総長顕彰, 2014 年 7 月.
- [7] Best Paper Research Award of the RAAD Workshop: Robotics in Alpe-Adria-Danube Region, 2013 年 9 月.
- [8] 大阪大学総長顕彰, 2013 年 8 月.
- [9] 人工知能学会研究会優秀賞, 2013 年 6 月.
- [10] ロボカップジャパンオープン 2013 ロボカップ研究賞, 2013 年 5 月.
- [11] Best Paper Award Finalist of the 16th Annual RoboCup International Symposium, 2012 年 6 月.
- [12] 日本赤ちゃん学会第 12 回学術集会 最優秀ポスター発表賞, 2012 年 6 月.
- [13] ロボカップジャパンオープン 2012 人工知能学会賞, 2012 年 5 月.
- [14] Best Paper Award Finalist of the 16th IEEE International Symposium on Robot and Human Interactive Communication, 2008 年 8 月.
- [15] 日本認知科学会第 22 回大会 大会発表賞, 2005 年 7 月.

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査読付き国際会議

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- [1] **Yukie Nagai**, “TBA,” The 1st International Workshop on Computational Models of Affordance in Robotics, Pittsburgh, USA, June 29-30, 2018.
- [2] **Yukie Nagai**, “Robots that Learn to Interact with Others Like Infants,” University of Twente, Enschede, Netherlands, February 22, 2018.
- [3] **Yukie Nagai**, “Predictive Learning: A computational theory that accounts for social cognitive development,” Paderborn University, Paderborn, Germany, February 20, 2018.
- [4] **Yukie Nagai**, “Predictive Learning: A computational theory that accounts for social cognitive development,” Max Planck Institute for Human Cognitive and Brain Sciences, Leipzig, Germany, February 16, 2018.
- [5] **Yukie Nagai**, “Predictive Learning: Computational theory that solves the puzzle of cognitive development,” The 1st International Symposium on Systems Intelligence Division, Osaka, January 20-21, 2018.
- [6] **Yukie Nagai**, “Mental Simulation Based on Crossmodal Learning,” ICDL-EpiRob2017 Workshop on Computational Models for Crossmodal Learning, Lisbon, Portugal, September 18, 2017.
- [7] **Yukie Nagai**, “Development of Social Self through Predictive Learning,” ICDL-EpiRob2017 Workshop on the Development of the Self: from self-perception to interaction under uncertainty, Lisbon, Portugal, September 18, 2017.
- [8] **Yukie Nagai**, “Predictive Coding for Robot Cognition,” International Symposium on Neuroscience of Consciousness: Beyond NCC, Chiba, Japan, July 24, 2017.
- [9] **Yukie Nagai**, “Computational models for cognitive development,” ISSA Summer School 2017, Osaka, May 22-June 2, 2017.
- [10] **Yukie Nagai**, “Predictive Learning: A Computational Account for Social Cognitive Development,” Lorentz Center Workshop “Perspectives on Developmental Robotics”, Leiden, the Netherlands, May 15-19, 2017.
- [11] **Yukie Nagai**, “Cognitive Mirroring: Computational Approach to Understanding and Assisting Autism Spectrum Disorder,” International Symposium on Constructive Approach to Cognitive Development and Disorders, Bielefeld University, Bielefeld, Germany, March 13, 2017.
- [12] **Yukie Nagai**, “Predictive learning: Its key role in cognitive development,” The 3rd International Symposium on Cognitive Neuroscience Robotics: Toward Constructive Developmental Science, Osaka, Japan, December 11-13, 2016.
- [13] **Yukie Nagai**, “Predictive Learning: A Computational Theory for Cognitive Development,” Lecture at Radboud University, Nijmegen, Netherlands, November 10, 2016.
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- [16] **Yukie Nagai**, “Predictive learning: A unified theory for cognitive development,” International Workshop on Robotics in the 21st century: Challenges and Promises, Volpriehausen, Germany, September 25-28, 2016.
- [17] **Yukie Nagai**, “A Computational Approach to Predictive Learning Account for Cognitive Development,” ICDL-EpiRob 2016 Workshop on Predictive Processing and Infant Development: The Current State-of-the-art, Cergy-Pontoise, France, September 19, 2016.
- [18] **Yukie Nagai**, “Predictive learning for robot cognition,” EuroScience Open Forum “Cognition in humans and robots,” Manchester, UK, July 23-27, 2016.
- [19] **Yukie Nagai**, “Intention reading and collaboration based on mirror neuron system,” HRI 2016 Workshop on Intention Recognition in Human-Robot Interaction, Christchurch, New Zealand, March 7, 2016.
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- [21] **Yukie Nagai**, “How ASD sees the world: Computational approaches to understanding atypical perception,” International Workshop on Cognitive Development for Friendly Robots and Rehabilitation, Genoa, Italy, December 2-3, 2015.
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- [26] **Yukie Nagai**, “Predictive Learning of Sensorimotor Information as a Key for Cognitive Development,” Open Lecture on Cognitive Interaction Design, Kyoto Institute of Technology, Kyoto, Japan, July 12, 2015.
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- [28] **Yukie Nagai**, “Prediction Error Minimization: An Underlying Mechanism for the Emergence of Behavioral Coordination,” HRI 2015 Workshop on Behavior Coordination between Animals, Humans and Robots, Portland, USA, March 2, 2015.
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- [32] **Yukie Nagai**, “What can robotics teach us about infant development?: Contingency learning as a key for cognitive development,” Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany, July 2014.
- [33] **Yukie Nagai**, “Computational Methods to Analyze the Dynamics of Infant-Caregiver Interaction,” ICIS 2014 Pre-Conference on Head-Mounted Eye Tracking, Berlin, Germany, July 2014.
- [34] **Yukie Nagai**, “An Interaction-Based Development of Human-Robot Joint Attention and Self/Other Cognition,” International Conference: Going Beyond the Laboratory - Ethical and Societal Challenges for Robotics, Delmenhorst, Germany, February 2014.
- [35] **Yukie Nagai**, “What can robotics teach us about self-other recognition?,” CiNet Friday Lunchtime Seminar Series, CiNet, Osaka, Japan, January 2014.
- [36] **Yukie Nagai**, “Designing Teachable Robots: How to take multidimensionality of mind perception into account?,” IROS 2013 Workshop on Towards Social Humanoid Robots: What makes interaction human-like?, Tokyo, Japan, November 2013.
- [37] **Yukie Nagai**, “Contingency as a key for cognitive development: From self-other recognition to joint attention,” IROS 2013 Workshop on Cognitive Robotics Systems: Replicating Human Actions and Activities, Tokyo, Japan, November 2013.
- [38] **Yukie Nagai**, “Development of Self through Other: Emergence of Mirror Neuron System and Social Interaction,” RobotDoc International Conference on Development of Cognition, Osaka, Japan, August 2013.
- [39] **Yukie Nagai**, “Developmental Robotics to Investigate Interpersonal Coordination,” CogSci 2013 Workshop on Embodied Approaches to Interpersonal Coordination: Infants, Adults, Robots, and Agents, Berlin, Germany, July 2013.
- [40] **Yukie Nagai**, “How social interaction shapes the way robots learn,” HRI 2013 Workshop on Collaborative Manipulation: New Challenges for Robotics and HRI, Tokyo, Japan, March 2013.
- [41] **Yukie Nagai**, “Can Robots Learn to Communicate like Infants?,” Houston University, Houston, TX, USA, November 2012.
- [42] **Yukie Nagai**, “The Importance of Starting Small in Robot Learning: Lessons from Human Intelligence,” The 15th International Conference on Artificial Intelligence: Methodology, Systems, Applications, Varna, Bulgaria, September 2012.
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- [45] **Yukie Nagai**, “Reading Intentions from Motionese: Analyzing and Designing Caregiver-Infant Interaction,” Workshop on “Reading intentions: From children to robots,” Lund, Sweden, March 2012.
- [46] **Yukie Nagai**, “Mutual Shaping between Caregivers’ Scaffolding and Infants’ Development: New Insights from Cognitive Developmental Robotics,” The 12th Winter Workshop on Mechanism of Brain and Mind, Rusutsu Resort Hotel, Hokkaido, Japan, January 2012.
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- [48] **Yukie Nagai**, “The Role of Maturation Constraints in Infant Development,” AGAI Club, Bielefeld University, Germany, June 2011.
- [49] **Yukie Nagai**, “My Research Stay in Bielefeld,” Forschungsfoerderung im deutsch-japanischen Austausch, Japan Week, Bielefeld University, Germany, June 2011.
- [50] **Yukie Nagai**, “Researchers’ Life in Osaka,” All about Osaka University, Japan Week, Bielefeld University, Germany, June 2011.

- [51] **Yukie Nagai**, “How a robot’s attention shapes the way people teach: Bottom-up vs. top-down attention,” CoR-Lab colloquium, Bielefeld University, Germany, October 2010.
- [52] **Yukie Nagai**, “Investigating Pedagogy by Modeling Infant Visual Attention,” Workshop at the Annual Meeting of the Cognitive Science Society ‘Intuitive Pedagogical Reasoning: An Interdisciplinary Workshop,’ Amsterdam, Netherland, July 2009.
- [53] **Yukie Nagai**, “A Developmental Approach to Robot Action Learning,” Cognitive Sciences Brown Bags, University of Zurich, Switzerland, December 2008.
- [54] **Yukie Nagai**, “Visual Action Structuring by Motionese,” Workshop on ‘Intermodal Action Structuring,’ Bielefeld, Germany, July 2008.
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- [56] **Yukie Nagai**, “The Role of Movement in the Development of Joint Attention: A Robotic Approach,” in Proceedings of the 15th International Conference on Infant Studies, Kyoto, Japan, June 2006.
- [57] **Yukie Nagai**, “Robots that learn to establish joint visual attention,” PRI Cooperative Research Workshop “Gaze, Joint Attention, and Theory of Mind,” Aichi, Japan, August 2005.
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- [1] 長井志江, “TBA,” 日本認知科学会第 35 回大会 OS「認知ミラーリングと社会的認知」, 大阪, 2018 年 8 月 30 日-9 月 1 日.
- [2] 長井志江, “自閉スペクトラム症の視覚世界を体験 ～なぜ対人コミュニケーションが難しいのかを考える～,” 世界自閉症啓発デー自閉スペクトラム症啓発講演会, 大阪, 2018 年 4 月 28 日.
- [3] 長井志江, “自閉スペクトラム症の視覚世界を体験 ～なぜ対人コミュニケーションが難しいのかを考える～,” NPO 法人チャレンジ・クラブ, 大阪, 2018 年 2 月 25 日.
- [4] 長井志江, “ロボティクスが解き明かす脳の発達と発達障害,” 第 17 期金曜サイエンスサロン, 大阪, 2018 年 2 月 9 日.
- [5] 長井志江, “予測符号化仮説に基づく自閉スペクトラム症の視聴覚過敏・鈍麻の構成的理解,” 電子情報通信学会発達障害支援研究会 第 5 回「自閉症と音声」研究会, 東京大学, 2018 年 1 月 28 日.
- [6] 長井志江, “ASD 視覚体験シミュレータ: 当事者視点の体験による困難さの理解と共有,” 「みんなの当事者研究」出版記念シンポジウム, 東京大学, 2018 年 1 月 27 日.
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- [8] 長井志江, “認知発達ロボティクスによる認知機能の構成的理解と発達障害者支援,” 応用脳科学コンソーシアム CiNet 脳情報研究ワークショップ, 東京, 2017 年 12 月 8 日.
- [9] 長井志江, “脳の予測符号化理論に基づく認知発達モデルと発達障害,” 第 4 回金沢大学子どものこころサミット, 金沢, 2017 年 11 月 30 日-12 月 2 日.
- [10] 長井志江, “認知ミラーリング: 認知過程の自己理解と社会的共有による発達障害者支援,” 日本発達神経科学学会第 6 回学術集会, 大阪, 2017 年 11 月 25-26 日.
- [11] 長井志江, “先端技術を社会へ! 発達障害者支援の取り組み,” 【IoT スタートアップセミナー】IoT・ロボット分野で起業をめざそう!!, 大阪, 2017 年 10 月 5 日.
- [12] 長井志江, “共感の神経基盤: 計算論的アプローチから探るミラーニューロンシステムの発達,” 「人に共感する人工知能」研究会, 東京, 2017 年 7 月 31 日.

- [13] 長井志江, “ロボットとところ,” 第7回 CiNet シンポジウム「脳情報は宝の山や! ~おもろい研究とビジネスのスパイラル~」, 東京国際フォーラム, 東京, 2017年6月29日.
- [14] 長井志江, “自閉スペクトラム症の視覚世界を体験 ~対人コミュニケーションの難しさの理由に迫る~, ” 泉北支援教育研究会総会・研修会, 大阪, 2017年6月12日.
- [15] 長井志江, “ロボットが人の気持ちを分かるようになる仕組み,” シンポジウム「HANDAI ロボット展から始まるロボットとの共生社会」, 大阪, 2017年5月13日.
- [16] 長井志江, “家族も支援者も自閉スペクトラム症の見ている世界を体験したいー阪大・東大グループによるシミュレータ開発の経緯と成果ー,” 一般社団法人 WAKUWAKU PROJECT JAPAN 第2回信州・諏訪発: 発達障害児・者と家族を応援するための講演会, 諏訪, 2017年4月23日.
- [17] 長井志江, “人を理解するための人工知能研究: 認知発達ロボティクスがもたらす未来,” Girls in Tech Japan 「AI 人工知能のこれから ~技術は短中長期的にどう社会に貢献するか~」, 大阪, 2017年2月23日.
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研究資金

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Role: Project Leader, Budget: EUR39,300

その他の助成

- [1] 大阪大学国際共同研究促進プログラム (短期人件費支援) “教示者の発話と運動呈示を利用したヒューマノイドロボット iCub による複雑な動作学習,” 2014 年 11 月–2015 年 3 月.
役割: 代表
- [2] 大阪大学最先端ときめき研究推進事業 “バイオサイエンスの時代における人間の未来,” 2010 年 8 月–2015 年 3 月.
役割: 分担 (代表: 檜垣立哉)

- [3] Cluster of Excellence “Cognitive Interaction Technology,” 2007 年–2012 年.
Role: Responsible Investigator (Coordinator: Helge Ritter)

各種委員会・学会活動

国際・国内会議実行委員会

- [1] General Co-Chair of the 5th International Conference on Human-Agent Interaction, 2017.
- [2] Publicity Co-Chair of the 7th Joint IEEE International Conference on Development and Learning and on Epigenetic Robotics, 2017.
- [3] Advisory Board of the 4th International Conference on Human-Agent Interaction, 2016.
- [4] General Co-Chair of the 11th ACM/IEEE International Conference on Human-Robot Interaction, 2016.
- [5] Workshops and Tutorials Co-Chair of the 2015 IEEE International Conference on Robotics and Automation, 2015.
- [6] Special Program Co-Chair of the 23rd IEEE International Symposium on Robot and Human Interactive Communication, 2014.
- [7] Publication Co-Chair of the 9th ACM/IEEE International Conference on Human-Robot Interaction, 2014.
- [8] General Chair of the 3rd Joint IEEE International Conference on Development and Learning and on Epigenetic Robotics, 2013.
- [9] Program Chair of the 2nd Joint IEEE International Conference on Development and Learning and on Epigenetic Robotics, 2012.
- [10] Publicity Chair of the 1st Joint IEEE International Conference on Development and Learning and on Epigenetic Robotics, 2011.
- [11] Registration Chair of the 5th ACM/IEEE International Conference on Human-Robot Interaction, 2010.
- [12] Communication Chair of the 4th IEEE International Conference on Development and Learning, 2005.

国際・国内会議プログラム委員会

- [1] Program Committee of the IEEE International Conference on Development and Learning and on Epigenetic Robotics, 2011–2018.
- [2] Program Committee of the ACM/IEEE International Conference on Human-Robot Interaction, 2011–2018.
- [3] Program Committee of the IEEE-RAS International Conference on Humanoid Robots, 2012–2016.
- [4] Program Committee of the IEEE International Symposium on Robot and Human Interactive Communication, 2016–2017.
- [5] Program Committee of the IEEE/RSJ International Conference on Intelligent Robots and Systems, 2017.
- [6] Program Committee of the HRI Pioneers Workshop, 2012–2016.
- [7] Program Committee of the RO-MAN2015-WS “Emotion for Social Robotics,” 2015.
- [8] Program Committee of the Annual Meeting of the Cognitive Science Society, 2015.
- [9] Program Committee of the 1st International Workshop on Emotion for Sociable Agents, 2014.

- [10] Program Committee of the International Joint Workshop on Advanced Sensing / Visual Attention and Interaction, 2013.
- [11] Program Committee of the IROS2012-WS “Human Behavior Understanding,” 2012.
- [12] Program Committee of the WCCI2012 Special Session “Bio-Inspired Developmental Mechanisms,” 2012.
- [13] Program Committee of the IEEE International Conference on Development and Learning, 2006–2010.
- [14] Program Committee of the International Conference/Workshop on Epigenetic Robotics, 2005–2010.
- [15] Program Committee of the HAI (Human-Agent Interaction) Symposium, 2011–2012.
- [16] Program Committee of the International Workshop on Gaze Sensing and Interactions, 2010.
- [17] Program Committee of the 3rd International Conference on Human System Interaction, 2010.
- [18] Program Committee of the International Workshop on Robotics for Young Researchers, 2009.
- [19] Program Committee of the 4th International Symposium on Imitation in Animals and Artifacts, 2007.
- [20] Program Committee of the 2006 Robotics: Science and Systems Conference, 2006.

その他

- [1] Special Issues Editor for Journal of Human-Robot Interaction, 2017–now.
- [2] Vice Chair of Autonomous Mental Development Technical Committee, Computational Intelligence Society of IEEE, 2012–now.
- [3] IEEE CIS Technical Committee on Autonomous Mental Development, 2011–now.
- [4] IEEE RAS Technical Committee on Cognitive Robotics, 2014–now.
- [5] Steering Committee of Human-Robot Interaction, 2014–now.
- [6] Review Editor of Frontiers in Neurorobotics, 2011–now.
- [7] Review Editor of Frontiers in Robotics and AI: Humanoid Robotics, 2014–now.
- [8] Scientific and Usage Advisory Board for EARS (Embodied Audition for RobotS) project, 2014–now.
- [9] Organizer of the HAI2017 Workshop on “Representation learning for human and robot cognition,” 2017.
- [10] Organizer of the IROS2016 Workshop on “Bio-inspired Social Robot Learning in Home Scenarios,” 2016.
- [11] Organizer of the ICAR2015 Workshop on “Robot Learning: Bottom-up and top-down development of robot skills,” 2015.
- [12] Organizer of the HRI2015 Workshop on “Cognition: A Bridge between Robotics and Interaction,” 2015.
- [13] Organizer of the HRI2014 Workshop on “HRI: a bridge between Robotics and Neuroscience,” 2014.
- [14] Organizer of the IJCNN2014 Special Session “Cognition and Development,” 2014.
- [15] Organizer of the ICDL-EpiRob2013 Special Session “Constructive Developmental Science: Two Endeavors toward Understanding Human Development,” 2013.
- [16] Organizer of the Humanoids2012 Workshop on “Can developmental robotics yield human-like cognitive abilities?,” 2012.
- [17] Organizer of the Workshop on Robot Anthropology, 2012.

- [18] Organizer of the IROS Workshop on “Cognitive Neuroscience Robotics,” 2011–2013.
- [19] Organizer of the Bielefeld-Osaka Workshop on Cognition and Robotics, 2011.
- [20] Organizer of the ICDL-EpiRob2011 Special Session “How can human scaffolding support robots learning?,” 2011.
- [21] Organizer of the HRI2011 Workshop on “The role of expectations in intuitive human-robot interaction,” 2011.
- [22] Organizer of the Bielefeld-Osaka Workshop, 2010.
- [23] 日本ロボット学会展開セッション「GCOE 認知脳理解に基づく未来工学創成」オーガナイザ, 2010–2013.
- [24] 日本ロボット学会展開セッション「構成論的発達科学—胎児からの発達原理の解明に基づく発達障害のシステムの理解—」オーガナイザ, 2013.
- [25] 日本赤ちゃん学会第 13 回学術集会シンポジウム「構成（論）的発達科学の新展開」オーガナイザ, 2013.

学生指導

博士論文

- [1] Jimmy Baraglia, “Prediction Error Minimization for the Emergence of Prosocial Helping Behavior,” 2016 年度大阪大学.

修士論文

- [1] Jorge Luis Copete Vasco, “A Computational Model for Development of Action Recognition in Synchronization with Development of Action Production,” 2015 年度大阪大学.
- [2] 黒木隆大, “色—情動の対応関係に基づく自閉症スペクトラム障害者の他者情動認識支援,” 2014 年度大阪大学.
- [3] Shibo Qin, “Synthetic Approach to the Relationship between Audiovisual Stimuli and Atypical Perception in Autism Spectrum Disorder,” 2014 年度大阪大学.
- [4] 大嶋悠司, “統語範疇の精緻化に基づく言語産出・理解発達の計算論モデル,” 2013 年度大阪大学.
- [5] 角田龍平, “顕著性と予測誤差に基づく選好性の相互作用による注視対象選択のモデル化,” 2013 年度大阪大学.
- [6] 森脇嵩量, “自閉症スペクトラム障害における部分的情報処理バイアスの発達モデル,” 2013 年度大阪大学.
- [7] 河合祐司, “生体運動の持つ運動指令と視覚情報の不変性に基づく生物らしさ検出モデル,” 2012 年度大阪大学.
- [8] 福嶋雄基, “予測的視線移動の発達メカニズム：時間窓の拡大をとまなう注視対象の予測学習,” 2012 年度大阪大学.
- [9] 堀井隆斗, “乳児期の触覚優位性に基づく感情分化モデル,” 2012 年度大阪大学.
- [10] 小松広樹, “環境へ与える効果を基にした階層的な動作シンボルの生成,” 2011 年度大阪大学.
- [11] 田中剛, “非明示的な動き情報を利用した物体の多様な機能認識システム,” 2011 年度大阪大学.
- [12] 丁畑亮, “胎児期の環境的拘束が導く聴覚と運動のクロスモーダル表現の獲得,” 2011 年度大阪大学.
- [13] 中谷明子, “移動エントロピーを用いた親子間相互作用における随伴性発達の構成的理解,” 2011 年度大阪大学.

卒業論文

- [1] Niyati Rawal, “The role of featural and configural processing in the development of visual attention,” 2017 年度大阪大学.
- [2] Shibo Qin, “Elucidating Spatiotemporal Contingency by Measuring Information Transfer in Caregiver-Infant Interaction,” 2012 年度大阪大学.
- [3] 河合祐司, “視覚の精緻化が導く自他未分化状態から自他認知への発達モデル,” 2010 年度大阪大学.
- [4] 木村浩隆, “発見的探索による柔軟なロボットの身体部位の協調,” 2010 年度大阪大学.
- [5] 福嶋雄基, “顕著性に基づく動的な注視領域選択による目標・経路指向動作カテゴリの獲得,” 2010 年度大阪大学.
- [6] 田中剛, “HOG 特徴と顕著性の統合による人物動作認識,” 2009 年度大阪大学.
- [7] 中谷明子, “赤ちゃんロボットの注意行動が誘発する人間の親様動作教示の解析,” 2009 年度大阪大学.

所属学会

IEEE.

日本ロボット学会.

日本認知科学会.

技能

言語: 日本語 (母国語), 英語 (流暢), ドイツ語 (基礎)

コンピュータ関連: Mac OS/Linux/Windows, C/C++, OpenCV, OpenGL, R, Latex