

Tadahiro Taniguchi

List of Publications by Year in descending order

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all docs

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docs citations

82
times ranked

679
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 1 | Visualization of Driving Behavior Based on Hidden Feature Extraction by Using Deep Learning. IEEE Transactions on Intelligent Transportation Systems, 2017, 18, 2477-2489. | 8.0 | 106 |
| 2 | Symbol emergence in robotics: a survey. Advanced Robotics, 2016, 30, 706-728. | 1.8 | 98 |
| 3 | Symbol Emergence in Cognitive Developmental Systems: A Survey. IEEE Transactions on Cognitive and Developmental Systems, 2019, 11, 494-516. | 3.8 | 53 |
| 4 | Exploring Behaviors of Caterpillar-Like Soft Robots with a Central Pattern Generator-Based Controller and Reinforcement Learning. Soft Robotics, 2019, 6, 579-594. | 8.0 | 47 |
| 5 | Semiotic prediction of driving behavior using unsupervised double articulation analyzer. , 2012, , . | | 37 |
| 6 | Unsupervised Hierarchical Modeling of Driving Behavior and Prediction of Contextual Changing Points. IEEE Transactions on Intelligent Transportation Systems, 2015, 16, 1746-1760. | 8.0 | 34 |
| 7 | SERKET: An Architecture for Connecting Stochastic Models to Realize a Large-Scale Cognitive Model. Frontiers in Neurobotics, 2018, 12, 25. | 2.8 | 34 |
| 8 | Online learning of concepts and words using multimodal LDA and hierarchical Pitman-Yor Language Model. , 2012, , . | | 32 |
| 9 | Online spatial concept and lexical acquisition with simultaneous localization and mapping. , 2017, , . | | 32 |
| 10 | Neuro-SERKET: Development of Integrative Cognitive System Through the Composition of Deep Probabilistic Generative Models. New Generation Computing, 2020, 38, 23-48. | 3.3 | 30 |
| 11 | Mutual learning of an object concept and language model based on MLDA and NPYLM. , 2014, , . | | 29 |
| 12 | World model learning and inference. Neural Networks, 2021, 144, 573-590. | 5.9 | 28 |
| 13 | Double articulation analyzer for unsegmented human motion using Pitman-Yor language model and infinite hidden Markov model. , 2011, , . | | 27 |
| 14 | Spatial Concept Acquisition for a Mobile Robot that Integrates Self-Localization and Unsupervised Word Discovery from Spoken Sentences. IEEE Transactions on Cognitive and Developmental Systems, 2016, , 1-1. | 3.8 | 25 |
| 15 | Contextual scene segmentation of driving behavior based on double articulation analyzer. , 2012, , . | | 24 |
| 16 | Double articulation analyzer with deep sparse autoencoder for unsupervised word discovery from speech signals. Advanced Robotics, 2016, 30, 770-783. | 1.8 | 24 |
| 17 | Nonparametric Bayesian Double Articulation Analyzer for Direct Language Acquisition From Continuous Speech Signals. IEEE Transactions on Cognitive and Developmental Systems, 2016, 8, 171-185. | 3.8 | 23 |
| 18 | Improved and scalable online learning of spatial concepts and language models with mapping. Autonomous Robots, 2020, 44, 927-946. | 4.8 | 21 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Multimodal Hierarchical Dirichlet Process-Based Active Perception by a Robot. <i>Frontiers in Neurorobotics</i> , 2018, 12, 22. | 2.8 | 20 |
| 20 | Cross-Situational Learning with Bayesian Generative Models for Multimodal Category and Word Learning in Robots. <i>Frontiers in Neurorobotics</i> , 2017, 11, 66. | 2.8 | 19 |
| 21 | Explainable Artificial Intelligence Model for Diagnosis of Atrial Fibrillation Using Holter Electrocardiogram Waveforms. <i>International Heart Journal</i> , 2021, 62, 534-539. | 1.0 | 19 |
| 22 | Dreaming: Model-based Reinforcement Learning by Latent Imagination without Reconstruction. , 2021, , . | | 19 |
| 23 | Autonomous planning based on spatial concepts to tidy up home environments with service robots. <i>Advanced Robotics</i> , 2021, 35, 471-489. | 1.8 | 18 |
| 24 | Drive video summarization based on double articulation structure of driving behavior. , 2012, , . | | 17 |
| 25 | Feature Extraction and Pattern Recognition for Human Motion by a Deep Sparse Autoencoder. , 2014, , . | | 17 |
| 26 | Robust Understanding of Robot-Directed Speech Commands Using Sequence to Sequence With Noise Injection. <i>Frontiers in Robotics and AI</i> , 2019, 6, 144. | 3.2 | 16 |
| 27 | Automated Linear Function Submission-Based Double Auction as Bottom-up Real-Time Pricing in a Regional Prosumersâ€™ Electricity Network. <i>Energies</i> , 2015, 8, 7381-7406. | 3.1 | 15 |
| 28 | Essential feature extraction of driving behavior using a deep learning method. , 2015, , . | | 15 |
| 29 | Hierarchical Spatial Concept Formation Based on Multimodal Information for Human Support Robots. <i>Frontiers in Neurorobotics</i> , 2018, 12, 11. | 2.8 | 15 |
| 30 | Semiotically adaptive cognition: toward the realization of remotely-operated service robots for the new normal symbiotic society. <i>Advanced Robotics</i> , 2021, 35, 664-674. | 1.8 | 15 |
| 31 | Symbol Emergence as an Interpersonal Multimodal Categorization. <i>Frontiers in Robotics and AI</i> , 2019, 6, 134. | 3.2 | 14 |
| 32 | Integration of imitation learning using GAIL and reinforcement learning using task-achievement rewards via probabilistic graphical model. <i>Advanced Robotics</i> , 2020, 34, 1055-1067. | 1.8 | 14 |
| 33 | Unsupervised spatial lexical acquisition by updating a language model with place clues. <i>Robotics and Autonomous Systems</i> , 2018, 99, 166-180. | 5.1 | 13 |
| 34 | Spatial concept-based navigation with human speech instructions via probabilistic inference on Bayesian generative model. <i>Advanced Robotics</i> , 2020, 34, 1213-1228. | 1.8 | 13 |
| 35 | Determining Utterance Timing of a Driving Agent With Double Articulation Analyzer. <i>IEEE Transactions on Intelligent Transportation Systems</i> , 2016, 17, 810-821. | 8.0 | 12 |
| 36 | Semantic Mapping Based on Spatial Concepts for Grounding Words Related to Places in Daily Environments. <i>Frontiers in Robotics and AI</i> , 2019, 6, 31. | 3.2 | 12 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 37 | SpCoMapGAN: Spatial Concept Formation-based Semantic Mapping with Generative Adversarial Networks. , 2020, , . | | 11 |
| 38 | A whole brain probabilistic generative model: Toward realizing cognitive architectures for developmental robots. Neural Networks, 2022, 150, 293-312. | 5.9 | 11 |
| 39 | Statistical localization exploiting convolutional neural network for an autonomous vehicle. , 2015, , . | | 9 |
| 40 | A generative framework for multimodal learning of spatial concepts and object categories: An unsupervised part-of-speech tagging and 3D visual perception based approach. , 2017, , . | | 9 |
| 41 | Learning Relationships Between Objects and Places by Multimodal Spatial Concept with Bag of Objects. Lecture Notes in Computer Science, 2017, , 115-125. | 1.3 | 9 |
| 42 | Decentralized trading and demand side response in inter-intelligent renewable energy network. , 2012, , . | | 8 |
| 43 | Convergent Double Auction Mechanism for a Prosumersâ€™ Decentralized Smart Grid. Energies, 2015, 8, 12342-12361. | 3.1 | 8 |
| 44 | Simultaneous Estimation of Self-position and Word from Noisy Utterances and Sensory Information. IFAC-PapersOnLine, 2016, 49, 221-226. | 0.9 | 8 |
| 45 | Multiagent multimodal categorization for symbol emergence: emergent communication via interpersonal cross-modal inference. Advanced Robotics, 2022, 36, 239-260. | 1.8 | 7 |
| 46 | Optical laser microphone for human-robot interaction: speech recognition in extremely noisy service environments. Advanced Robotics, 2022, 36, 304-317. | 1.8 | 7 |
| 47 | What is the role of the next generation of cognitive robotics?. Advanced Robotics, 2022, 36, 3-16. | 1.8 | 7 |
| 48 | Prediction of driving behavior based on sequence to sequence model with parametric bias. , 2017, , . | | 6 |
| 49 | Role differentiation process by division of reward function in multi-agent reinforcement learning. , 2008, , . | | 5 |
| 50 | Unsupervised Phoneme and Word Discovery From Multiple Speakers Using Double Articulation Analyzer and Neural Network With Parametric Bias. Frontiers in Robotics and AI, 2019, 6, 92. | 3.2 | 5 |
| 51 | Unsupervised lexical acquisition of relative spatial concepts using spoken user utterances. Advanced Robotics, 2022, 36, 54-70. | 1.8 | 5 |
| 52 | Finding meaningful robust chunks from driving behavior based on double articulation analyzer. , 2012, , . | | 4 |
| 53 | Multimodal concept and word learning using phoneme sequences with errors. , 2013, , . | | 4 |
| 54 | Economically Efficient Power Storage Operation by Dealing with the Non-Normality of Power Prediction. Energies, 2015, 8, 12211-12227. | 3.1 | 4 |

| # | ARTICLE | IF | CITATIONS |
|----|--|-----|-----------|
| 55 | Symbol Emergence in Robotics for Long-Term Human-Robot Collaboration**This research was partially supported by a Grant-in-Aid for Young Scientists (B) 2012-2014 (24700233) and a Grant-in-Aid for Young Scientists (A) 2015-2019 (15H05319) funded by the Ministry of Education, Culture, Sports, Science, and Technology, Japan, and by CREST, IST.. IFAC-PapersOnLine, 2016, 49, 144-149. | 0.9 | 4 |
| 56 | Comparative study of feature extraction methods for direct word discovery with NPB-DAA from natural speech signals. , 2017, , . | | 4 |
| 57 | Defect-Repairable Latent Feature Extraction of Driving Behavior via a Deep Sparse Autoencoder. Sensors, 2018, 18, 608. | 3.8 | 4 |
| 58 | Map completion from partial observation using the global structure of multiple environmental maps. Advanced Robotics, 2022, 36, 279-290. | 1.8 | 4 |
| 59 | Robot Concept Acquisition Based on Interaction Between Probabilistic and Deep Generative Models. Frontiers in Computer Science, 2021, 3, . | 2.8 | 3 |
| 60 | Multi-agent Simulation about Urban Dynamics Based on a Hypothetical Relationship between Individuals' Travel Behavior and Residential Choice Behavior. Transactions of the Society of Instrument and Control Engineers, 2011, 47, 571-580. | 0.2 | 3 |
| 61 | Mutual Learning of an Object Concept and Language Model Based on MLDA and NPYLM. Transactions of the Japanese Society for Artificial Intelligence, 2015, 30, 498-509. | 0.1 | 3 |
| 62 | Hierarchical Bayesian model for the transfer of knowledge on spatial concepts based on multimodal information. Advanced Robotics, 2022, 36, 33-53. | 1.8 | 3 |
| 63 | Active Exploration for Unsupervised Object Categorization Based on Multimodal Hierarchical Dirichlet Process. , 2021, , . | | 2 |
| 64 | Editorial: Language and Robotics. Frontiers in Robotics and AI, 2021, 8, 674832. | 3.2 | 2 |
| 65 | Encouraging User Interaction of Social Network through Tweet Recommendation Using Community Structure. , 2013, , . | | 1 |
| 66 | Cost-Benefit Analysis of Renewable Installation in Interconnected Intelligent Renewable Energy Network. Electrical Engineering in Japan (English Translation of Denki Gakkai Ronbunshi), 2016, 194, 42-52. | 0.4 | 1 |
| 67 | Direct word discovery from speech signals based on hierarchical Dirichlet process-hidden language model and deep sparse autoencoder. , 2016, , . | | 1 |
| 68 | Unsupervised learning for spoken word production based on simultaneous word and phoneme discovery without transcribed data. , 2017, , . | | 1 |
| 69 | Accelerated Nonparametric Bayesian Double Articulation Analyzer for Unsupervised Word Discovery. , 2018, , . | | 1 |
| 70 | Bayesian Noisy Word Clustering through Sampling Prototypical Words. , 2018, , . | | 1 |
| 71 | Editorial: Machine Learning Methods for High-Level Cognitive Capabilities in Robotics. Frontiers in Neurobotics, 2019, 13, 83. | 2.8 | 1 |
| 72 | Risk-Limiting Real-Time Pricing for a Regional Prosumers' Electricity Network with Distributed Solar Power Generation. SICE Journal of Control Measurement and System Integration, 2017, 10, 100-109. | 0.7 | 1 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 73 | Convergence Error Analysis of DSM with Dual-Decomposition for the Smart Grid. SICE Journal of Control Measurement and System Integration, 2016, 9, 115-121. | 0.7 | 1 |
| 74 | Adaptive Design of Role Differentiation by Division of Reward Function in Multi-Agent Reinforcement Learning. SICE Journal of Control Measurement and System Integration, 2010, 3, 26-34. | 0.7 | 0 |
| 75 | Integrative Cognitive Systems for Language Understanding and Symbol Emergence in Robotics. Journal of the Robotics Society of Japan, 2021, 39, 405-410. | 0.1 | 0 |
| 76 | Analyzing Phenotype Microarray Data for Escherichia coli Using an Infinite Relational Model. , 2021, , . | | 0 |
| 77 | Cost Benefit Analysis for the Renewable Installation in Inter-Intelligent Renewable Energy Network. IEEJ Transactions on Electronics, Information and Systems, 2014, 134, 1925-1933. | 0.2 | 0 |
| 78 | Towards System Theory of Communication-field Mechanism Design. Transactions of the Institute of Systems Control and Information Engineers, 2019, 32, 417-428. | 0.1 | 0 |
| 79 | Impact Analysis of Order of Presentation on Champion Book Decision in Bibliobattle. Transactions of the Institute of Systems Control and Information Engineers, 2019, 32, 439-445. | 0.1 | 0 |
| 80 | Analysing the Dealing Rights to Speak with a Large Number of Participants. Transactions of the Institute of Systems Control and Information Engineers, 2021, 34, 219-230. | 0.1 | 0 |
| 81 | Simultaneous Learning of Relative and Absolute Spatial Concepts without Any Prior Distinction. , 2021, , . | | 0 |
| 82 | Special issue on symbol emergence in robotics and cognitive systems (II). Advanced Robotics, 2022, 36, 217-218. | 1.8 | 0 |