

Yasuo Kuniyoshi

List of Publications by Year in descending order

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155
papers

3,062
citations

361413

20
h-index

276875

41
g-index

157
all docs

157
docs citations

157
times ranked

2041
citing authors

#	ARTICLE	IF	CITATIONS
1	Cognitive Developmental Robotics: A Survey. IEEE Transactions on Autonomous Mental Development, 2009, 1, 12-34.	1.6	472
2	RoboCup. , 1997, , .		422
3	Cognitive developmental robotics as a new paradigm for the design of humanoid robots. Robotics and Autonomous Systems, 2001, 37, 185-193.	5.1	342
4	Early motor development from partially ordered neural-body dynamics: experiments with a cortico-spinal-musculo-skeletal model. Biological Cybernetics, 2006, 95, 589-605.	1.3	90
5	An Embodied Brain Model of the Human Foetus. Scientific Reports, 2016, 6, 27893.	3.3	90
6	Athlete Robot with applied human muscle activation patterns for bipedal running. , 2010, , .		77
7	Embodied basis of invariant features in execution and perception of whole-body dynamic actionsâ€”knocks and focuses of Roll-and-Rise motion. Robotics and Autonomous Systems, 2004, 48, 189-201.	5.1	67
8	A deformable and deformation sensitive tactile distribution sensor. , 2007, , .		61
9	Biomechanical Approach to Open-Loop Bipedal Running with a Musculoskeletal Athlete Robot. Advanced Robotics, 2012, 26, 383-398.	1.8	58
10	Adaptive body schema for robotic tool-use. Advanced Robotics, 2006, 20, 1105-1126.	1.8	53
11	A tactile distribution sensor which enables stable measurement under high and dynamic stretch. , 2009, , .		52
12	A highly stretchable tactile distribution sensor for smooth surfaced humanoids. , 2007, , .		51
13	A human fetus development simulation: Self-organization of behaviors through tactile sensation. , 2010, , .		43
14	Somatosensory Feedback to the Cheek During Virtual Visual Feedback Therapy Enhances Pain Alleviation for Phantom Arms. Neurorehabilitation and Neural Repair, 2017, 31, 717-725.	2.9	35
15	Grasping by caging: A promising tool to deal with uncertainty. , 2012, , .		34
16	Online Evolution for a Self-Adapting Robotic Navigation System Using Evolvable Hardware. Artificial Life, 1998, 4, 359-393.	1.3	33
17	Continuous humanoid interaction:. Robotics and Autonomous Systems, 2001, 37, 161-183.	5.1	33
18	Wearable motion capture suit with full-body tactile sensors. , 2009, , .		33

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19	Active stereo vision system with foveated wide angle lenses. Lecture Notes in Computer Science, 1996, , 191-200.	1.3	29
20	The robocup physical agent challenge: Phase i. Applied Artificial Intelligence, 1998, 12, 251-263.	3.2	29
21	Falling motion control for humanoid robots while walking. , 2007, , .		28
22	Journalist robot: robot system making news articles from real world. , 2007, , .		28
23	Tactile feedback for relief of deafferentation pain using virtual reality system: a pilot study. Journal of NeuroEngineering and Rehabilitation, 2016, 13, 61.	4.6	28
24	High-Speed and Lightweight Humanoid Robot Arm for a Skillful Badminton Robot. IEEE Robotics and Automation Letters, 2018, 3, 1727-1734.	5.1	28
25	Designing spontaneous behavioral switching via chaotic itinerancy. Science Advances, 2020, 6, .	10.3	26
26	Emergence and development of embodied cognition: a constructivist approach using robots. Progress in Brain Research, 2007, 164, 425-445.	1.4	25
27	A translational model to determine rodent's age from human foetal age. Scientific Reports, 2017, 7, 17248.	3.3	25
28	High-Speed Humanoid Robot Arm for Badminton Using Pneumatic-Electric Hybrid Actuators. IEEE Robotics and Automation Letters, 2019, 4, 3601-3608.	5.1	25
29	Multimodal virtual reality platform for the rehabilitation of phantom limb pain. , 2015, , .		24
30	On the Information Theoretic Implications of Embodiment " Principles and Methods. , 2007, , 76-86.		24
31	Modeling the Minimal Newborn's Intersubjective Mind: The Visuotopic-Somatotopic Alignment Hypothesis in the Superior Colliculus. PLoS ONE, 2013, 8, e69474.	2.5	23
32	Purposive learning: Robot reasoning about the meanings of human activities. Science Robotics, 2019, 4, .	17.6	21
33	Neural-body coupling for emergent locomotion: A musculoskeletal quadruped robot with spinobulbar model. , 2011, , .		19
34	A new "grasping by caging"; solution by using eigen-shapes and space mapping. , 2013, , .		18
35	Coordinated Use of Structure-Integrated Bistable Actuation Modules for Agile Locomotion. IEEE Robotics and Automation Letters, 2018, 3, 1018-1024.	5.1	18
36	Fusing autonomy and sociality via embodied emergence and development of behaviour and cognition from fetal period. Philosophical Transactions of the Royal Society B: Biological Sciences, 2019, 374, 20180031.	4.0	18

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37	Three Dimensional Bipedal Stepping Motion using Neural Oscillators. Towards Humanoid Motion in the Real World.. Journal of the Robotics Society of Japan, 2000, 18, 87-93.	0.1	18
38	The ETL-Humanoid system—a high-performance full-body humanoid system for versatile real-world interaction. Advanced Robotics, 2003, 17, 149-164.	1.8	17
39	DYNAMIC ROLL-AND-RISE MOTION BY AN ADULT-SIZE HUMANOID ROBOT. International Journal of Humanoid Robotics, 2004, 01, 497-516.	1.1	17
40	Physics-Informed Recurrent Neural Networks for Soft Pneumatic Actuators. IEEE Robotics and Automation Letters, 2022, 7, 6862-6869.	5.1	17
41	Online gait planning with Dynamical 3D-Symmetrization method. , 2007, , .		16
42	Partial matching of real textured 3D objects using color cubic higher-order local auto-correlation features. Visual Computer, 2010, 26, 1269-1281.	3.5	16
43	Structured movement representations of a phantom limb associated with phantom limb pain. Neuroscience Letters, 2015, 605, 7-11.	2.1	16
44	Ceiling continuum arm with extensible pneumatic actuators for desktop workspace. , 2018, , .		14
45	Model-Free Reinforcement Learning with Ensemble for a Soft Continuum Robot Arm. , 2021, , .		14
46	Neural-body coupling for emergent locomotion: A musculoskeletal quadruped robot with spinobulbar model. , 2011, , .		14
47	Direct evidence of EEG coherence in alleviating phantom limb pain by virtual referred sensation: Case report. Neurocase, 2020, 26, 55-59.	0.6	13
48	Emulating a sensor using soft material dynamics: A reservoir computing approach to pneumatic artificial muscle. , 2020, , .		13
49	Creating and modulating rhythms by controlling the physics of the body. Autonomous Robots, 2010, 28, 317-329.	4.8	12
50	Cooperative manipulation with least number of robots via robust caging. , 2012, , .		12
51	Transformer-based deep imitation learning for dual-arm robot manipulation. , 2021, , .		12
52	A musculoskeletal bipedal robot designed with angle-dependent moment arm for dynamic motion from multiple states. Advanced Robotics, 2014, 28, 487-496.	1.8	11
53	Gaze-Based Dual Resolution Deep Imitation Learning for High-Precision Dexterous Robot Manipulation. IEEE Robotics and Automation Letters, 2021, 6, 1630-1637.	5.1	11
54	Image annotation and retrieval based on efficient learning of contextual latent space. , 2009, , .		10

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55	AI Goggles: Real-time Description and Retrieval in the Real World with Online Learning. , 2009, , .		10
56	Using Human Gaze to Improve Robustness Against Irrelevant Objects in Robot Manipulation Tasks. IEEE Robotics and Automation Letters, 2020, 5, 4415-4422.	5.1	10
57	Dynamic Roll-and-Rise Motion by an Adult-Size Humanoid Robot. Journal of the Robotics Society of Japan, 2005, 23, 706-717.	0.1	10
58	Learning to coordinate behaviors for robot navigation. Advanced Robotics, 1995, 10, 143-159.	1.8	9
59	Emergence and Categorization of Coordinated Visual Behavior Through Embodied Interaction. Autonomous Robots, 1998, 5, 369-379.	4.8	9
60	On the caging region of a third finger with object boundary clouds and two given contact positions. , 2012, , .		9
61	Immediate Generation of Jump-and-Hit Motions by a Pneumatic Humanoid Robot Using a Lookup Table of Learned Dynamics. IEEE Robotics and Automation Letters, 2021, 6, 5557-5564.	5.1	9
62	Development of Wireless Networked Tiny Orientation Device for Wearable Motion Capture and Measurement of Walking Around, Walking Up and Down, and Jumping Tasks. , 2007, , .		8
63	Developmental changes in intralimb coordination during spontaneous movements of human infants from 2 to 3 months of age. Experimental Brain Research, 2016, 234, 2179-2188.	1.5	8
64	Lifting techniques for the humanoid robots: insights from human movements. , 2008, , .		7
65	Low-pressure Soft Inflatable Joint Driven by Inner Tendon. , 2019, , .		7
66	New telecare approach based on 3D convolutional neural network for estimating quality of life. Neurocomputing, 2020, 397, 464-476.	5.9	7
67	Spike-induced ordering: Stochastic neural spikes provide immediate adaptability to the sensorimotor system. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 12486-12496.	7.1	7
68	A Neural Model for Exploration and Learning of Embodied Movement Patterns. Journal of Robotics and Mechatronics, 2008, 20, 358-366.	1.0	7
69	Cognitive Robotics. Toward cognitive robotics.. Journal of the Robotics Society of Japan, 1999, 17, 2-6.	0.1	7
70	Teaching by Showing: Generating Robot Command Sequences Based on Real Time Visual Recognition of Human Pick and Place Actions.. Journal of the Robotics Society of Japan, 1991, 9, 295-303.	0.1	7
71	Implementation of a distributed controller for the RWC dexterous hand. Robotics and Autonomous Systems, 1996, 18, 13-19.	5.1	6
72	Fusing autonomy and sociability in robots. , 1997, , .		6

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73	Co-creation of human-robot interaction rules through response prediction and habituation/dishabituation. , 2009, , .		6
74	A Telecare System that Estimates Quality of Life through Communication. , 2018, , .		6
75	Stapedial reflex threshold predicts individual loudness tolerance for people with autistic spectrum disorders. Experimental Brain Research, 2019, 237, 91-100.	1.5	6
76	Real-time Binocular Tracking Based on Virtual Horopter.. Journal of the Robotics Society of Japan, 1995, 13, 683-690.	0.1	6
77	Physics-informed reservoir computing with autonomously switching readouts: a case study in pneumatic artificial muscles. , 2021, , .		6
78	Smart extraction of desired object from color-distance image with user's tiny scribble. , 2008, , .		5
79	Image Annotation and Retrieval for Weakly Labeled Images Using Conceptual Learning. New Generation Computing, 2010, 28, 277-298.	3.3	5
80	A Method for Sustaining Consistent Sensory-Motor Coordination under Body Property Changes Including Tool Grasp/Release. Advanced Robotics, 2010, 24, 687-717.	1.8	5
81	High-speed 3D object recognition using additive features in a linear subspace. , 2010, , .		5
82	Scale and rotation invariant color features for weakly-supervised object Learning in 3D space. , 2011, , .		5
83	Growth of stochastic resonance in neuronal ensembles with the input signal intensity. Physical Review E, 2012, 86, 011922.	2.1	5
84	Active bending motion of pole vault robot to improve reachable height. , 2014, , .		5
85	Pole vaulting robot with dual articulated arms that can change reaching position using active bending motion. , 2015, , .		5
86	Evolvable hardware: A robot navigation system testbed. New Generation Computing, 1998, 16, 97-122.	3.3	4
87	Musculoskeletal quadruped robot with Torque-Angle Relationship Control System. , 2016, , .		4
88	Skeletonizing the Dynamics of Soft Continuum Body from Video. Soft Robotics, 2022, 9, 201-211.	8.0	4
89	Blower-Powered Soft Inflatable Joints for Physical Human-Robot Interaction. Frontiers in Robotics and AI, 2021, 8, 720683.	3.2	4
90	Environmental and Structural Effects on Physical Reservoir Computing with Tensegrity. Journal of the Institute of Industrial Applications Engineers, 2018, 6, 92-99.	0.2	4

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91	Adaptive and Emergent Imitation as the Fundamental of Humanoid Intelligence. Journal of the Robotics Society of Japan, 2007, 25, 671-677.	0.1	4
92	A Cognitive Architecture for Flexible Imitative Interaction Using Tools and Objects. , 2006, , .		3
93	Dense Sampling Low-Level Statistics of Local Features. IEICE Transactions on Information and Systems, 2010, E93-D, 1727-1736.	0.7	3
94	Modeling the cholinergic innervation in the infant cortico-hippocampal system and its contribution to early memory development and attention. , 2011, , .		3
95	Visual anomaly detection from small samples for mobile robots. , 2012, , .		3
96	Hard negative classes for multiple object detection. , 2014, , .		3
97	Humanoid robot performing jump-and-hit motions using structure-integrated pneumatic cable cylinders. , 2017, , .		3
98	Species-specific Posture of Human Foetus in Late First Trimester. Scientific Reports, 2018, 8, 27.	3.3	3
99	Development of a Musculoskeletal Humanoid Robot as a Platform for Biomechanical Research on the Underwater Dolphin Kick. , 2018, , .		3
100	Reward sensitivity differs depending on global self-esteem in value-based decision-making. Scientific Reports, 2020, 10, 21525.	3.3	3
101	Whole Body Haptics for Augmented Humanoid Task Capabilities. Springer Tracts in Advanced Robotics, 2010, , 61-73.	0.4	3
102	Classification of Motion Constraints by Explorative Manipulation by a Compliant Multi-Fingered Hand. Journal of Robotics and Mechatronics, 2005, 17, 645-654.	1.0	3
103	Cognitive Robotics. Towards emergence of embodied interaction dynamics.. Journal of the Robotics Society of Japan, 1999, 17, 29-33.	0.1	3
104	Learning from Examples: Imitation Learning and Emerging Cognition. Frontiers in Neuroengineering Series, 2014, , 233-249.	0.4	3
105	Behavioral Diversity Generated From Body-Environment Interactions in a Simulated Tensegrity Robot. IEEE Robotics and Automation Letters, 2022, 7, 1597-1604.	5.1	3
106	Self-Organization of Physics-Informed Mechanisms in Recurrent Neural Networks: A Case Study in Pneumatic Artificial Muscles. , 2022, , .		3
107	Memory-based gaze prediction in deep imitation learning for robot manipulation. , 2022, , .		3
108	Analyzing the 'knack' of human piggyback motion based on simultaneous measurement of tactile and movement data as a basis for humanoid control. , 2009, , .		2

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109	Analyzing the 'knacks' of transferring human and developing a two-body integrated model as a basis for humanoid control. , 2009, , .		2
110	Visual anomaly detection under temporal and spatial non-uniformity for news finding robot. , 2011, , .		2
111	Effect of preliminary motions on agile motions. , 2013, , .		2
112	Single laser to multiple optical fiber device for optogenetics-based epidural spinal cord stimulation. , 2017, , .		2
113	Estimation of Mental Health Quality of Life using Visual Information during Interaction with a Communication Agent. , 2020, , .		2
114	Construction and Evaluation of QOL Specialized Dictionary SqolDic Using Vocabulary Meaning and QOL Scale. Electronics (Switzerland), 2021, 10, 417.	3.1	2
115	Wireless Powered Dielectric Elastomer Actuator. IEEE Robotics and Automation Letters, 2021, 6, 7278-7284.	5.1	2
116	A Compact Mobile Robot With Binocular Tracking Vision.. Journal of the Robotics Society of Japan, 1995, 13, 343-346.	0.1	2
117	Soft bodies as input reservoir: role of softness from the viewpoint of reservoir computing. , 2019, , .		2
118	Anthropomorphic Face Robot having Soft Mouth Mechanism with Embedded Artificial Facial Muscles. , 2019, , .		2
119	Identifying Critical States by the Action-Based Variance of Expected Return. Lecture Notes in Computer Science, 2020, , 366-378.	1.3	2
120	A mechanical true random number generator. New Journal of Physics, 2022, 24, 013019.	2.9	2
121	Automatic motion generation exploiting the global structure of nonlinear dynamics based on finite-time reachability. Robotics and Autonomous Systems, 2006, 54, 696-705.	5.1	1
122	Autonomous Adaptive Emergent Systems. Advanced Robotics, 2009, 23, 1481-1485.	1.8	1
123	Towards Computational Developmental Model based on Synthetic Approaches. , 2009, , .		1
124	Evaluation of action-similarity awareness effect in rhythm ensemble co-creation. , 2011, , .		1
125	Is the developmental order of fetal behaviors self-organized in an uterine environment?. , 2012, , .		1
126	Bilateral teleoperation system for a musculoskeletal robot arm using a musculoskeletal exoskeleton. , 2017, , .		1

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127	Sequential Jumping-Stepping Motion on Musculoskeletal Humanoid Robot for Agile Locomotion. , 2018, , .		1
128	Modularized genotype combination to design multiobjective soft-bodied robots. , 2021, , .		1
129	A Tactile Distribution Sensor Based on Inverse Problem Theory. Journal of the Robotics Society of Japan, 2007, 25, 960-969.	0.1	1
130	Computational Model of Tool-Body Assimilation based on Object Identification. Journal of the Robotics Society of Japan, 2007, 25, 897-905.	0.1	1
131	Autonomous Adaptive Emergent Systems. Journal of the Robotics Society of Japan, 2008, 26, 744-745.	0.1	1
132	Humanoid Robots. Humanoid Interaction Research.. Journal of the Robotics Society of Japan, 1997, 15, 979-982.	0.1	1
133	An Actuation System using a Hydrostatic Skeleton and a Shape Memory Alloy for Earthworm-like Soft Robots. , 2022, , .		1
134	Transient chaos in bidirectional encoder representations from transformers. Physical Review Research, 2022, 4, .	3.6	1
135	Neural network-based multiple robot Simultaneous Localization and Mapping. , 2011, , .		1
136	Mobile sensing robots for nuclear power plant inspection. Advanced Robotics, 1998, 13, 355-356.	1.8	0
137	Academic Roadmap in Integrated Information Field. Advanced Robotics, 2009, 23, 1465-1474.	1.8	0
138	Analysis of bidirectional information transfer on drumming ensemble using robotic session system. , 2012, , .		0
139	Adversarial Imitation Learning between Agents with Different Numbers of State Dimensions. , 2019, , .		0
140	Generating an image of an object's appearance from somatosensory information during haptic exploration. , 2019, , .		0
141	Ready Posture for Rapid Reaction of Badminton Robot Arm. , 2019, , .		0
142	Spike Timing Dependent Plasticity Enhances Integrated Information at the EEG Level: A Large-scale Brain Simulation Experiment. , 2019, , .		0
143	Competitive physical interaction by reinforcement learning agents using intention estimation. , 2021, , .		0
144	Linear Discrimination Analysis of Monkey Behavior in an Alternative Free Choice Task. Journal of Robotics and Mechatronics, 2007, 19, 416-422.	1.0	0

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145	Academic Roadmap in Information Complex Field. Journal of the Robotics Society of Japan, 2008, 26, 738-741.	0.1	0
146	Future Robots in Frontier Research and Science Fictions.. Journal of the Robotics Society of Japan, 1994, 12, 368-388.	0.1	0
147	Robot Contests. Research Activity and Robot Contest (RoboCup).. Journal of the Robotics Society of Japan, 1997, 15, 13-16.	0.1	0
148	Why is cognitive robotics promising?. Journal of the Robotics Society of Japan, 1999, 17, 38-43.	0.1	0
149	ADJUSTMENT OF PRESSURE IN ANTAGONISTIC JOINTS WITH PNEUMATIC ARTIFICIAL MUSCLES FOR RAPID REACTING MOTIONS. , 2014, , .		0
150	Bodily motion fluctuation improves reaching success rate in a neurophysical agent via geometric-stochastic resonance. PLoS ONE, 2017, 12, e0188298.	2.5	0
151	High-speed flexible arm to reduce the effect of spinning ball in table tennis. , 2019, , .		0
152	Spiking Neurons Ensemble for Movement Generation in Dynamically Changing Environments. , 2020, , .		0
153	Unsupervised Temporal Segmentation Using Models That Discriminate Between Demonstrations and Unintentional Actions. , 2021, , .		0
154	Proposal of Manufacturing Method for New Passive Elastic Joint and Prototype of Human Phantom. Journal of Robotics and Mechatronics, 2022, 34, 402-412.	1.0	0
155	Visual anomaly detection under temporal and spatial non-uniformity for news finding robot. , 2011, , .		0