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List of Publications by Year
in descending order

Version: 2024-02-01

98 papers	1,887 citations	430874 18 h-index	330143 37 g-index
102 all docs	102 docs citations	102 times ranked	1617 citing authors

#	Article	IF	Citations
1	ROSSINI: RobOt kidS deSIgn thiNkIng. Advances in Intelligent Systems and Computing, 2021, , 16-25.	0.6	1
2	Manipulation Planning Using Object-Centered Predicates and Hierarchical Decomposition of Contextual Actions. IEEE Robotics and Automation Letters, 2020, 5, 5629-5636.	5.1	7
3	Combining decision making and dynamical systems for monitoring and executing manipulation tasks. Elektrotechnik Und Informationstechnik, 2020, 137, 309-315.	1.1	2
4	Skill Learning by Autonomous Robotic Playing Using Active Learning and Exploratory Behavior Composition. Frontiers in Robotics and AI, 2020, 7, 42.	3.2	10
5	Reconfigurable Behavior Trees: Towards an Executive Framework Meeting High-level Decision Making and Control Layer Features. , 2020, , .		8
6	Towards affordance detection for robot manipulation using affordance for parts and parts for affordance. Autonomous Robots, 2019, 43, 1155-1172.	4.8	16
7	Action representations in robotics: A taxonomy and systematic classification. International Journal of Robotics Research, 2019, 38, 518-562.	8.5	13
8	Symbol Emergence in Cognitive Developmental Systems: A Survey. IEEE Transactions on Cognitive and Developmental Systems, 2019, 11, 494-516.	3.8	53
9	Pushing corridors for delivering unknown objects with a mobile robot. Autonomous Robots, 2019, 43, 1435-1452.	4.8	18
10	Affordances in Psychology, Neuroscience, and Robotics: A Survey. IEEE Transactions on Cognitive and Developmental Systems, 2018, 10, 4-25.	3.8	108
11	Teaching a Robot the Semantics of Assembly Tasks. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2018, 48, 670-692.	9.3	46
12	Integrating multi-purpose natural language understanding, robotâ€™s memory, and symbolic planning for task execution in humanoid robots. Robotics and Autonomous Systems, 2018, 99, 148-165.	5.1	16
13	Online Adaptation of Robot Pushing Control to Object Properties. , 2018, , .		4
14	Exercising Affordances of Objects: A Part-Based Approach. IEEE Robotics and Automation Letters, 2018, 3, 3465-3472.	5.1	8
15	Learning Semantics of Gestural Instructions for Human-Robot Collaboration. Frontiers in Neurorobotics, 2018, 12, 7.	2.8	12
16	Emergent Structuring of Interdependent Affordance Learning Tasks Using Intrinsic Motivation and Empirical Feature Selection. IEEE Transactions on Cognitive and Developmental Systems, 2017, 9, 328-340.	3.8	16
17	Autonomous robots: potential, advances and future direction. Elektrotechnik Und Informationstechnik, 2017, 134, 293-298.	1.1	5
18	Computational models of affordance in robotics: a taxonomy and systematic classification. Adaptive Behavior, 2017, 25, 235-271.	1.9	49

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19	Can Affordances Guide Object Decomposition into Semantically Meaningful Parts?. , 2017, , .		5
20	Autonomous skill-centric testing using deep learning. , 2017, , .		0
21	A robust pushing skill for object delivery between obstacles. , 2016, , .		14
22	A multi-view hand gesture RGB-D dataset for human-robot interaction scenarios. , 2016, , .		17
23	Robotic playing for hierarchical complex skill learning. , 2016, , .		13
24	Learning undirected graphical models using persistent sequential Monte Carlo. Machine Learning, 2016, 103, 239-260.	5.4	0
25	Kronecker Decomposition for Image Classification. Lecture Notes in Computer Science, 2016, , 137-149.	1.3	1
26	Integration of Probabilistic Pose Estimates from Multiple Views. Lecture Notes in Computer Science, 2016, , 154-170.	1.3	13
27	Learning V4 Curvature Cell Populations from Sparse Endstopped Cells. Lecture Notes in Computer Science, 2016, , 463-471.	1.3	2
28	Using structural bootstrapping for object substitution in robotic executions of human-like manipulation tasks. , 2015, , .		9
29	Bottom-up learning of object categories, action effects and logical rules: From continuous manipulative exploration to symbolic planning. , 2015, , .		48
30	Diversity priors for learning early visual features. Frontiers in Computational Neuroscience, 2015, 9, 104.	2.1	8
31	Multi-label Object Categorization Using Histograms of Global Relations. , 2015, , .		1
32	SCurV: A 3D descriptor for object classification. , 2015, , .		4
33	Refining discovered symbols with multi-step interaction experience. , 2015, , .		11
34	Probabilistic Detection of Pointing Directions for Human-Robot Interaction. , 2015, , .		26
35	Scalable, accurate image annotation with joint SVMs and output kernels. Neurocomputing, 2015, 169, 205-214.	5.9	4
36	Negotiating Instruction Strategies during Robot Action Demonstration. , 2015, , .		6

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37	Structural Bootstrappingâ€"A Novel, Generative Mechanism for Faster and More Efficient Acquisition of Action-Knowledge. IEEE Transactions on Autonomous Mental Development, 2015, 7, 140-154.	1.6	21
38	CPS: 3D Compositional Part Segmentation through Grasping. , 2015, , .		1
39	Human Smile Distinguishes between Collaborative and Solitary Tasks in Human-Robot Interaction. , 2015, , .		2
40	Reactive, task-specific object manipulation by metric reinforcement learning. , 2015, , .		4
41	Beyond Simple and Complex Neurons: Towards Intermediate-level Representations of Shapes and Objects. KI - Kunstliche Intelligenz, 2015, 29, 19-29.	3.2	0
42	General Object Tip Detection and Pose Estimation for Robot Manipulation. Lecture Notes in Computer Science, 2015, , 364-374.	1.3	2
43	The Effects of Social Gaze in Human-Robot Collaborative Assembly. Lecture Notes in Computer Science, 2015, , 204-213.	1.3	20
44	Active learning of manipulation sequences. , 2014, , .		12
45	Bootstrapping paired-object affordance learning with learned single-affordance features. , 2014, , .		19
46	Knowledge propagation and relation learning for predicting action effects. , 2014, , .		9
47	Emergent structuring of interdependent affordance learning tasks. , 2014, , .		13
48	Complex affordance learning based on basic affordances. , 2014, , .		0
49	Multiview feature distributions for object detection and continuous pose estimation. Computer Vision and Image Understanding, 2014, 125, 265-282.	4.7	19
50	Towards Sparsity and Selectivity: Bayesian Learning of Restricted Boltzmann Machine for Early Visual Features. Lecture Notes in Computer Science, 2014, , 419-426.	1.3	7
51	A Push-Pull CORF Model of a Simple Cell with Antiphase Inhibition Improves SNR and Contour Detection. PLoS ONE, 2014, 9, e98424.	2.5	38
52	Deep Hierarchies in the Primate Visual Cortex: What Can We Learn for Computer Vision?. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 1847-1871.	13.9	285
53	A Simple Ontology of Manipulation Actions Based on Hand-Object Relations. IEEE Transactions on Autonomous Mental Development, 2013, 5, 117-134.	1.6	53
54	Continuous Pose Estimation in 2D Images at Instance and Category Levels. , 2013, , .		9

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55	Efficient, General Point Cloud Registration with Kernel Feature Maps. , 2013, , .		2
56	A Study of Point Cloud Registration with Probability Product Kernel Functions. , 2013, , .		8
57	Unsupervised learning of predictive parts for cross-object grasp transfer. , 2013, , .		10
58	3D Object Class Geometry Modeling with Spatial Latent Dirichlet Markov Random Fields. Lecture Notes in Computer Science, 2013, , 51-60.	1.3	1
59	Homogeneity analysis for object-action relation reasoning in kitchen scenarios. , 2013, , .		4
60	Modeling Pose/Appearance Relations for Improved Object Localization and Pose Estimation in 2D images. Lecture Notes in Computer Science, 2013, , 59-68.	1.3	0
61	Sampling-Based Multiview Reconstruction without Correspondences for 3D Edges. , 2012, , .		8
62	Generalizing grasps across partly similar objects. , 2012, , .		47
63	Generalized Exemplar-Based Full Pose Estimation from 2D Images without Correspondences. , 2012, , .		4
64	Hand Modeling and Tracking for Video-Based Sign Language Recognition by Robust Principal Component Analysis. Lecture Notes in Computer Science, 2012, , 273-285.	1.3	3
65	Objectâ€“Action Complexes: Grounded abstractions of sensoryâ€“motor processes. Robotics and Autonomous Systems, 2011, 59, 740-757.	5.1	127
66	Learning Grasp Affordance Densities. Paladyn, 2011, 2, 1-17.	2.7	65
67	What a successful grasp tells about the success chances of grasps in its vicinity. , 2011, , .		1
68	Learning visual representations for perception-action systems. International Journal of Robotics Research, 2011, 30, 294-307.	8.5	22
69	Continuous Surface-Point Distributions for 3D Object Pose Estimation and Recognition. Lecture Notes in Computer Science, 2011, , 572-585.	1.3	14
70	Learning Visual Representations for Interactive Systems. Springer Tracts in Advanced Robotics, 2011, , 399-416.	0.4	12
71	Affine Warp Propagation for Fast Simultaneous Modelling and Tracking of Articulated Objects. Lecture Notes in Computer Science, 2011, , 422-435.	1.3	0
72	Probabilistic Object Models for Pose Estimation in 2D Images. Lecture Notes in Computer Science, 2011, , 336-345.	1.3	3

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73	Using multi-modal 3D contours and their relations for vision and robotics. Journal of Visual Communication and Image Representation, 2010, 21, 850-864.	2.8	8
74	Development of Object and Grasping Knowledge by Robot Exploration. IEEE Transactions on Autonomous Mental Development, 2010, 2, 368-383.	1.6	27
75	Combining active learning and reactive control for robot grasping. Robotics and Autonomous Systems, 2010, 58, 1105-1116.	5.1	107
76	Refining grasp affordance models by experience. , 2010, , .		23
77	Learning probabilistic discriminative models of grasp affordances under limited supervision. , 2010, , .		9
78	Adapting Preshaped Grasping Movements Using Vision Descriptors. Lecture Notes in Computer Science, 2010, , 156-166.	1.3	2
79	Active learning using mean shift optimization for robot grasping. , 2009, , .		16
80	Using 3D contours and their relations for cognitive vision and robotics. , 2009, , .		1
81	Planning readings: a comparative exploration of basic algorithms. Computer Science Education, 2009, 19, 179-192.	3.7	0
82	Ground-Target Tracking in Multiple Cameras Using Collaborative Particle Filters and Principal Axis-Based Integration. IPSJ Transactions on Computer Vision and Applications, 2009, 1, 58-71.	4.4	5
83	Learning Objects and Grasp Affordances through Autonomous Exploration. Lecture Notes in Computer Science, 2009, , 235-244.	1.3	12
84	A Probabilistic Approach to Integrating Multiple Cues in Visual Tracking. Lecture Notes in Computer Science, 2008, , 225-238.	1.3	28
85	Probabilistic Pose Recovery Using Learned Hierarchical Object Models. Lecture Notes in Computer Science, 2008, , 107-120.	1.3	6
86	Non-rigid object tracker based on a robust combination of parametric active contour and point distribution model. , 2007, , .		5
87	Sequential variational inference for distributed multi-sensor tracking and fusion. , 2007, , .		0
88	Multi-camera People Tracking by Collaborative Particle Filters and Principal Axis-Based Integration. , 2007, , 365-374.		62
89	On-Line Rectification of Sport Sequences with Moving Cameras. Lecture Notes in Computer Science, 2007, , 736-746.	1.3	8
90	Data Fusion by Belief Propagation for Multi-Camera Tracking. , 2006, , .		9

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91	Multi-view Object Tracking Using Sequential Belief Propagation. Lecture Notes in Computer Science, 2006, , 684-693.	1.3	4
92	Unsupervised Learning of Visual Feature Hierarchies. Lecture Notes in Computer Science, 2005, , 243-252.	1.3	2
93	Tracking by Cluster Analysis of Feature Points and Multiple Particle Filters. Lecture Notes in Computer Science, 2005, , 701-710.	1.3	10
94	Biomedical Image Classification with Random Subwindows and Decision Trees. Lecture Notes in Computer Science, 2005, , 220-229.	1.3	21
95	A Comparison of Generic Machine Learning Algorithms for Image Classification. , 2004, , 169-182.		4
96	Introduction to the special issue: International Conference on Vision Systems. Machine Vision and Applications, 2004, 16, 4-5.	2.7	1
97	Developing haptic and visual perceptual categories for reaching and grasping with a humanoid robot. Robotics and Autonomous Systems, 2001, 37, 195-218.	5.1	74
98	Fuzzy Sets for Feature Identification in Biomedical Signals with Self-Assessment of Reliability: An Adaptable Algorithm Modeling Human Procedure in BAEP Analysis. Journal of Biomedical Informatics, 1995, 28, 335-353.	0.7	21