

# Yiannis Demiris

## List of Publications by Year in descending order

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Version: 2024-02-01

168  
papers

4,311  
citations

218381

26  
h-index

174990

52  
g-index

169  
all docs

169  
docs citations

169  
times ranked

3467  
citing authors

#	ARTICLE	IF	CITATIONS
1	The Visual Object Tracking VOT2016 Challenge Results. Lecture Notes in Computer Science, 2016, , 777-823.	1.0	312
2	Hierarchical attentive multiple models for execution and recognition of actions. Robotics and Autonomous Systems, 2006, 54, 361-369.	3.0	255
3	Attentional Correlation Filter Network for Adaptive Visual Tracking. , 2017, , .		222
4	Collaborative Control for a Robotic Wheelchair: Evaluation of Performance, Attention, and Workload. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 876-888.	5.5	194
5	Context-Aware Deep Feature Compression for High-Speed Visual Tracking. , 2018, , .		157
6	The Sixth Visual Object Tracking VOT2018 Challenge Results. Lecture Notes in Computer Science, 2019, , 3-53.	1.0	152
7	Distributed, predictive perception of actions: a biologically inspired robotics architecture for imitation and learning. Connection Science, 2003, 15, 231-243.	1.8	147
8	RT-GENE: Real-Time Eye Gaze Estimation in Natural Environments. Lecture Notes in Computer Science, 2018, , 339-357.	1.0	146
9	Visual Tracking Using Attention-Modulated Disintegration and Integration. , 2016, , .		143
10	Quality and Diversity Optimization: A Unifying Modular Framework. IEEE Transactions on Evolutionary Computation, 2018, 22, 245-259.	7.5	125
11	The robot in the crib: a developmental analysis of imitation skills in infants and robots. Infant and Child Development, 2008, 17, 43-53.	0.9	113
12	Multimodal Child-Robot Interaction: Building Social Bonds. Journal of Human-robot Interaction, 2013, 1, .	2.0	98
13	Echo State Gaussian Process. IEEE Transactions on Neural Networks, 2011, 22, 1435-1445.	4.8	96
14	Prediction of intent in robotics and multi-agent systems. Cognitive Processing, 2007, 8, 151-158.	0.7	89
15	Towards Long-Term Social Child-Robot Interaction: Using Multi-Activity Switching to Engage Young Users. Journal of Human-robot Interaction, 2016, 5, 32.	2.0	72
16	Human-wheelchair collaboration through prediction of intention and adaptive assistance. , 2008, , .		70
17	Child-robot interaction in the wild. , 2011, , .		69
18	Deferred imitation of human head movements by an active stereo vision head. , 0, , .		58

#	ARTICLE	IF	CITATIONS
19	Adaptive human-robot interaction in sensorimotor task instruction: From human to robot dance tutors. <i>Robotics and Autonomous Systems</i> , 2014, 62, 707-720.	3.0	58
20	A syntactic approach to robot imitation learning using probabilistic activity grammars. <i>Robotics and Autonomous Systems</i> , 2013, 61, 1323-1334.	3.0	52
21	Perceptual Perspective Taking and Action Recognition. <i>International Journal of Advanced Robotic Systems</i> , 2005, 2, 32.	1.3	50
22	DAC-h3: A Proactive Robot Cognitive Architecture to Acquire and Express Knowledge About the World and the Self. <i>IEEE Transactions on Cognitive and Developmental Systems</i> , 2018, 10, 1005-1022.	2.6	48
23	Iterative path optimisation for personalised dressing assistance using vision and force information. , 2016, , .		46
24	Spatio-Temporal Learning With the Online Finite and Infinite Echo-State Gaussian Processes. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2015, 26, 522-536.	7.2	42
25	The Coordinating Role of Language in Real-Time Multimodal Learning of Cooperative Tasks. <i>IEEE Transactions on Autonomous Mental Development</i> , 2013, 5, 3-17.	2.3	39
26	Incrementally Learning Objects by Touch: Online Discriminative and Generative Models for Tactile-Based Recognition. <i>IEEE Transactions on Haptics</i> , 2014, 7, 512-525.	1.8	39
27	Probabilistic Real-Time User Posture Tracking for Personalized Robot-Assisted Dressing. <i>IEEE Transactions on Robotics</i> , 2019, 35, 873-888.	7.3	37
28	Online spatio-temporal Gaussian process experts with application to tactile classification. , 2012, , .		36
29	Adaptive user modelling in car racing games using behavioural and physiological data. <i>User Modeling and User-Adapted Interaction</i> , 2017, 27, 267-311.	2.9	36
30	Haptic and Visual Feedback Assistance for Dual-Arm Robot Teleoperation in Surface Conditioning Tasks. <i>IEEE Transactions on Haptics</i> , 2021, 14, 44-56.	1.8	34
31	Optimal robot arm control using the minimum variance model. <i>Journal of Field Robotics</i> , 2005, 22, 677-690.	0.7	32
32	Head-Mounted Augmented Reality for Explainable Robotic Wheelchair Assistance. , 2018, , .		31
33	Perceiving the unusual: Temporal properties of hierarchical motor representations for action perception. <i>Neural Networks</i> , 2006, 19, 272-284.	3.3	30
34	Increasing robotic wheelchair safety with collaborative control: Evidence from secondary task experiments. , 2010, , .		30
35	Learning Shared Control by Demonstration for Personalized Wheelchair Assistance. <i>IEEE Transactions on Haptics</i> , 2018, 11, 431-442.	1.8	30
36	Socio-Cognitive Engineering of a Robotic Partner for Child's Diabetes Self-Management. <i>Frontiers in Robotics and AI</i> , 2019, 6, 118.	2.0	29

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37	Tracking football player movement from a single moving camera using particle filters. , 2006, , .		29
38	Online Multimodal Ensemble Learning Using Self-Learned Sensorimotor Representations. IEEE Transactions on Cognitive and Developmental Systems, 2017, 9, 113-126.	2.6	28
39	A nonparametric Bayesian approach toward robot learning by demonstration. Robotics and Autonomous Systems, 2012, 60, 789-802.	3.0	27
40	Assistive Robotic Technology to Combat Social Isolation in Acute Hospital Settings. International Journal of Social Robotics, 2018, 10, 607-620.	3.1	27
41	RT-BENE: A Dataset and Baselines for Real-Time Blink Estimation in Natural Environments. , 2019, , .		27
42	Learning Assistance by Demonstration: Smart Mobility With Shared Control and Paired Haptic Controllers. Journal of Human-robot Interaction, 2015, 4, 76.	2.0	24
43	Contextual action recognition and target localization with an active allocation of attention on a humanoid robot. Bioinspiration and Biomimetics, 2013, 8, 035002.	1.5	23
44	Information Processing in the Mirror Neuron System in Primates and Machines. Neuroinformatics, 2014, 12, 63-91.	1.5	23
45	Personalized robot-assisted dressing using user modeling in latent spaces. , 2017, , .		21
46	Knowing when to assist: Developmental issues in lifelong assistive robotics. , 2009, 2009, 3357-60.		20
47	Nonparametric Mixtures of Gaussian Processes With Power-Law Behavior. IEEE Transactions on Neural Networks and Learning Systems, 2012, 23, 1862-1871.	7.2	20
48	Hierarchical behavioral repertoires with unsupervised descriptors. , 2018, , .		20
49	Kinematic-free position control of a 2-DOF planar robot arm. , 2015, , .		18
50	Lifelong Augmentation of Multimodal Streaming Autobiographical Memories. IEEE Transactions on Cognitive and Developmental Systems, 2016, 8, 201-213.	2.6	18
51	Learning Grasping Points for Garment Manipulation in Robot-Assisted Dressing. , 2020, , .		18
52	Towards One Shot Learning by imitation for humanoid robots. , 2010, , .		17
53	Evolving policies for multi-reward partially observable markov decision processes (MR-POMDPs). , 2011, , .		17
54	Robust grasping for an under-actuated anthropomorphic hand under object position uncertainty. , 2012, , .		17

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55	Iterative temporal learning and prediction with the sparse online echo state gaussian process. , 2012, , .		17
56	Multimodal representation models for prediction and control from partial information. Robotics and Autonomous Systems, 2020, 123, 103312.	3.0	17
57	The Infinite-Order Conditional Random Field Model for Sequential Data Modeling. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2013, 35, 1523-1534.	9.7	16
58	A morphable template framework for robot learning by demonstration: Integrating one-shot and incremental learning approaches. Robotics and Autonomous Systems, 2014, 62, 1517-1530.	3.0	16
59	STARE: Spatio-Temporal Attention Relocation for Multiple Structured Activities Detection. IEEE Transactions on Image Processing, 2015, 24, 5916-5927.	6.0	16
60	Towards Explainable Shared Control using Augmented Reality. , 2019, , .		16
61	Special Issue on Robot Learning by Observation, Demonstration, and Imitation. IEEE Transactions on Systems, Man, and Cybernetics, 2007, 37, 254-255.	5.5	15
62	Markerless perspective taking for humanoid robots in unconstrained environments. , 2016, , .		15
63	Learning garment manipulation policies toward robot-assisted dressing. Science Robotics, 2022, 7, eabm6010.	9.9	15
64	Monocular Visual Traffic Surveillance: A Review. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 14148-14165.	4.7	15
65	Object Grasping using the Minimum Variance Model. Biological Cybernetics, 2006, 94, 393-407.	0.6	14
66	A Quantum-Statistical Approach Toward Robot Learning by Demonstration. IEEE Transactions on Robotics, 2012, 28, 1371-1381.	7.3	13
67	One-shot assistance estimation from expert demonstrations for a shared control wheelchair system. , 2015, , .		13
68	Variational Autoencoded Regression: High Dimensional Regression of Visual Data on Complex Manifold. , 2017, , .		13
69	iCub-HRI: A Software Framework for Complex Human-Robot Interaction Scenarios on the iCub Humanoid Robot. Frontiers in Robotics and AI, 2018, 5, 22.	2.0	13
70	Online Knowledge Level Tracking with Data-Driven Student Models and Collaborative Filtering. IEEE Transactions on Knowledge and Data Engineering, 2020, 32, 2000-2013.	4.0	13
71	The copula echo state network. Pattern Recognition, 2012, 45, 570-577.	5.1	12
72	Encoderless position control of a two-link robot manipulator. , 2015, , .		12

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73	A Motivational Approach to Support Healthy Habits in Long-term Child-Robot Interaction. International Journal of Social Robotics, 2016, 8, 599-617.	3.1	12
74	Active Learning of Object and Body Models with Time Constraints on a Humanoid Robot. IEEE Transactions on Cognitive and Developmental Systems, 2016, 8, 26-41.	2.6	12
75	Transferring Visuomotor Learning from Simulation to the Real World for Robotics Manipulation Tasks. , 2018, , .		12
76	When and how to help: An iterative probabilistic model for learning assistance by demonstration. , 2013, , .		11
77	Computational Modeling of Embodied Visual Perspective Taking. IEEE Transactions on Cognitive and Developmental Systems, 2020, 12, 723-732.	2.6	11
78	Towards an open-source social middleware for humanoid robots. , 2011, , .		10
79	Behavioral accommodation towards a dance robot tutor. , 2014, , .		10
80	Unsupervised learning of complex articulated kinematic structures combining motion and skeleton information. , 2015, , .		10
81	A Humanoid Robot Companion for Wheelchair Users. Lecture Notes in Computer Science, 2013, , 432-441.	1.0	10
82	Spectral clustering in multi-agent systems. Knowledge and Information Systems, 2010, 25, 607-622.	2.1	9
83	Learning dynamical representations of tools for tool-use recognition. , 2011, , .		9
84	Real-Time Workload Classification during Driving using HyperNetworks. , 2018, , .		9
85	Augmented Reality Controlled Smart Wheelchair Using Dynamic Signifiers for Affordance Representation. , 2019, , .		9
86	Time to Change: Deciding When to Switch Action Plans during a Social Interaction. Lecture Notes in Computer Science, 2013, , 47-58.	1.0	9
87	A Cloud-based Robot System for Long-term Interaction: Principles, Implementation, Lessons Learned. ACM Transactions on Human-Robot Interaction, 2022, 11, 1-27.	3.2	9
88	Editorial: Introduction to the Special Issue on Epigenetic Robotics. Adaptive Behavior, 2003, 11, 75-77.	1.1	8
89	Imitation of human demonstration using a biologically inspired modular optimal control scheme. , 0, , .		8
90	User modelling for personalised dressing assistance by humanoid robots. , 2015, , .		8

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91	Augmented Reality for Feedback in a Shared Control Spraying Task. , 2018, , .		8
92	Partial observability during predictions of the opponent's movements in an RTS game. , 2010, , .		7
93	Online quantum mixture regression for trajectory learning by demonstration. , 2013, , .		7
94	Predicting car states through learned models of vehicle dynamics and user behaviours. , 2015, , .		7
95	Highly Articulated Kinematic Structure Estimation Combining Motion and Skeleton Information. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 2165-2179.	9.7	7
96	User Modelling Using Multimodal Information for Personalised Dressing Assistance. IEEE Access, 2020, 8, 45700-45714.	2.6	7
97	iCharibot: Design and Field Trials of a Fundraising Robot. Lecture Notes in Computer Science, 2013, , 412-421.	1.0	7
98	Combining haptics and inertial motion capture to enhance remote control of a dual-arm robot. Journal on Multimodal User Interfaces, 2022, 16, 219-238.	2.0	7
99	Content-based control of goal-directed attention during human action perception. Interaction Studies, 2008, 9, 353-376.	0.4	6
100	Hierarchical learning approach for one-shot action imitation in humanoid robots. , 2010, , .		6
101	Kinematic Structure Correspondences via Hypergraph Matching. , 2016, , .		6
102	Hierarchical action learning by instruction through interactive grounding of body parts and proto-actions. , 2016, , .		6
103	Learning Kinematic Structure Correspondences Using Multi-Order Similarities. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 2920-2934.	9.7	6
104	HammerDrive: A Task-Aware Driving Visual Attention Model. IEEE Transactions on Intelligent Transportation Systems, 2022, 23, 5573-5585.	4.7	6
105	Decision Anticipation for Driving Assistance Systems. , 2020, , .		6
106	Multi-robot plan adaptation by constrained minimal distortion feature mapping. , 2009, , .		5
107	Efficient template-based path imitation by invariant feature mapping. , 2009, , .		5
108	The One-Hidden Layer Non-parametric Bayesian Kernel Machine. , 2011, , .		5

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109	Adapting robot behavior to user's capabilities. , 2011, , .		5
110	Incremental learning of an optical flow model for sensorimotor anticipation in a mobile robot. , 2012, , .		5
111	Learning reusable task components using hierarchical activity grammars with uncertainties. , 2012, , .		5
112	Inference of user-intention in remote robot wheelchair assistance using multimodal interfaces. , 2019, , .		5
113	Real-Time Multi-Person Pose Tracking using Data Assimilation. , 2020, , .		5
114	Predicting Secondary Task Performance: A Directly Actionable Metric for Cognitive Overload Detection. IEEE Transactions on Cognitive and Developmental Systems, 2022, 14, 1474-1485.	2.6	5
115	Hierarchies for Embodied Action Perception. , 2013, , 81-98.		5
116	Simulation theory of understanding others: a robotics perspective. , 2007, , 89-102.		4
117	Balancing Spectral Clustering for Segmenting Spatio-temporal Observations of Multi-agent Systems. , 2008, , .		4
118	Towards incremental learning of task-dependent action sequences using probabilistic parsing. , 2011, , .		4
119	Multi-reward policies for medical applications. , 2011, , .		4
120	The echo state conditional random field model for sequential data modeling. Expert Systems With Applications, 2012, 39, 10303-10309.	4.4	4
121	A reservoir-driven non-stationary hidden Markov model. Pattern Recognition, 2012, 45, 3985-3996.	5.1	4
122	Towards a synchronised Grammars framework for adaptive musical human-robot collaboration. , 2015, , .		4
123	Personalised track design in car racing games. , 2016, , .		4
124	Multi-task and multi-kernel Gaussian process dynamical systems. Pattern Recognition, 2017, 66, 190-201.	5.1	4
125	Proactive Robot Assistance: Affordance-Aware Augmented Reality User Interfaces. IEEE Robotics and Automation Magazine, 2022, 29, 22-34.	2.2	4
126	Biologically inspired optimal robot ann control with signal-dependent noise. , 0, , .		3



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127	Content-based control of goal-directed attention during human action perception. , 2006, , .		3
128	Towards anthropomorphic robot Thereminist. , 2010, , .		3
129	Assisted painting of 3D structures using shared control with a hand-held robot. , 2017, , .		3
130	Fast Collision Prediction for Autonomous Vehicles using a Stochastic Dynamics Model. , 2021, , .		3
131	LibRob: An Autonomous Assistive Librarian. Lecture Notes in Computer Science, 2019, , 15-26.	1.0	3
132	Exploiting affordance symmetries for task reproduction planning. , 2012, , .		2
133	Multimodal imitation using self-learned sensorimotor representations. , 2016, , .		2
134	Inferring Human Knowledgeability from Eye Gaze in Mobile Learning Environments. Lecture Notes in Computer Science, 2019, , 193-209.	1.0	2
135	Online Unsupervised Learning of the 3D Kinematic Structure of Arbitrary Rigid Bodies. , 2019, , .		2
136	Improving Generalisation in Learning Assistance by Demonstration for Smart Wheelchairs. , 2020, , .		2
137	Rotational Adjoint Methods for Learning-Free 3D Human Pose Estimation from IMU Data. , 2021, , .		2
138	Transparent Intent for Explainable Shared Control in Assistive Robotics. , 2020, , .		2
139	Predicting the Movements of Robot Teams Using Generative Models. , 2009, , 533-542.		2
140	A Groovy Virtual Drumming Agent. Lecture Notes in Computer Science, 2009, , 104-117.	1.0	2
141	Towards Contextual Action Recognition and Target Localization with Active Allocation of Attention. Lecture Notes in Computer Science, 2012, , 192-203.	1.0	2
142	instruMentor: An Interactive Robot for Musical Instrument Tutoring. Lecture Notes in Computer Science, 2019, , 303-315.	1.0	2
143	Augmented Reality User Interfaces for Heterogeneous Multirobot Control. , 2020, , .		2
144	Kinematic Structure Estimation of Arbitrary Articulated Rigid Objects for Event Cameras. , 2022, , .		2

#	ARTICLE	IF	CITATIONS
145	Generalising human demonstration data by identifying affordance symmetries in object interaction trajectories. , 2011, , .		1
146	A spatially-constrained normalized Gamma process prior. Expert Systems With Applications, 2012, 39, 13019-13025.	4.4	1
147	A Spatially-Constrained Normalized Gamma Process for Data Clustering. International Federation for Information Processing, 2012, , 337-346.	0.4	1
148	A sparse nonparametric hierarchical Bayesian approach towards inductive transfer for preference modeling. Expert Systems With Applications, 2012, 39, 7235-7246.	4.4	1
149	Enhanced kinematic model for dexterous manipulation with an underactuated hand. , 2013, , .		1
150	Increasing the accuracy and the repeatability of position control for micromanipulations using Heteroscedastic Gaussian Processes. , 2014, , .		1
151	Where is my keyboard? Model-based active adaptation of action-space in a humanoid robot. , 2015, , .		1
152	Editorial: Machine Learning Methods for High-Level Cognitive Capabilities in Robotics. Frontiers in Neurorobotics, 2019, 13, 83.	1.6	1
153	A Drum Machine That Learns to Groove. Lecture Notes in Computer Science, 2008, , 144-151.	1.0	1
154	Using robots to study the mechanisms of imitation. , 2007, , 159-178.		1
155	Multitask Variational Autoencoding of Human-to-Human Object Handover. , 2021, , .		1
156	Continuous Non-Invasive Eye Tracking In Intensive Care. , 2021, 2021, 1869-1873.		1
157	Faster, Better Blink Detection through Curriculum Learning by Augmentation. , 2022, , .		1
158	Attention shifts during action sequence recognition for social robots. , 0, , .		0
159	Context-GMM: Incremental learning of sparse priors for Gaussian mixture regression. , 2012, , .		0
160	Live Demonstration: Incremental Motion Estimation for Event-based Cameras by Dispersion Minimisation. , 2021, , .		0
161	Embodied Reasoning for Discovering Object Properties via Manipulation. , 2021, , .		0
162	Converging Bio-inspired Robotics and Socio-inspired Agents for Intelligent Transportation Systems. Lecture Notes in Computer Science, 2010, , 304-306.	1.0	0

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163	Special issue on Symbol Emergence in Robotics and Cognitive Systems (I). Advanced Robotics, 2022, 36, 1-2.	1.1	0
164	Special issue on symbol emergence in robotics and cognitive systems (II). Advanced Robotics, 2022, 36, 217-218.	1.1	0
165	What Is The Patient Looking At? Robust Gaze-Scene Intersection Under Free-Viewing Conditions. , 2022, , .		0
166	Using a Single Input to Forecast Human Action Keystates in Everyday Pick and Place Actions. , 2022, , .		0
167	Message Passing Framework for Vision Prediction Stability in Human Robot Interaction. , 2022, , .		0
168	Using Eye Gaze to Forecast Human Pose in Everyday Pick and Place Actions. , 2022, , .		0