

Patrick M Pilarski

List of Publications by Year in descending order

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Version: 2024-02-01

71
papers

1,626
citations

471509

17
h-index

361022

35
g-index

76
all docs

76
docs citations

76
times ranked

2009
citing authors

#	ARTICLE	IF	CITATIONS
1	First Steps Towards an Intelligent Laser Welding Architecture Using Deep Neural Networks and Reinforcement Learning. <i>Procedia Technology</i> , 2014, 15, 474-483.	1.1	203
2	Intelligent laser welding through representation, prediction, and control learning: An architecture with deep neural networks and reinforcement learning. <i>Mechatronics</i> , 2016, 34, 1-11.	3.3	120
3	Model-Free reinforcement learning with continuous action in practice. , 2012, , .		99
4	Online human training of a myoelectric prosthesis controller via actor-critic reinforcement learning. , 2011, 2011, 5975338.		85
5	A Genome-Wide Aberrant RNA Splicing in Patients with Acute Myeloid Leukemia Identifies Novel Potential Disease Markers and Therapeutic Targets. <i>Clinical Cancer Research</i> , 2014, 20, 1135-1145.	7.0	85
6	Small volume PCR in PDMS biochips with integrated fluid control and vapour barrier. <i>Sensors and Actuators B: Chemical</i> , 2006, 113, 398-409.	7.8	83
7	FISH and chips: chromosomal analysis on microfluidic platforms. <i>IET Nanobiotechnology</i> , 2007, 1, 27.	3.8	55
8	Application of real-time machine learning to myoelectric prosthesis control. <i>Prosthetics and Orthotics International</i> , 2016, 40, 573-581.	1.0	49
9	Characterization of normative hand movements during two functional upper limb tasks. <i>PLoS ONE</i> , 2018, 13, e0199549.	2.5	44
10	Adaptive artificial limbs: a real-time approach to prediction and anticipation. <i>IEEE Robotics and Automation Magazine</i> , 2013, 20, 53-64.	2.0	43
11	NOTCH2 and FLT3 gene mis-splicings are common events in patients with acute myeloid leukemia (AML): new potential targets in AML. <i>Blood</i> , 2014, 123, 2816-2825.	1.4	36
12	Using synchronized eye and motion tracking to determine high-precision eye-movement patterns during object-interaction tasks. <i>Journal of Vision</i> , 2018, 18, 18.	0.3	33
13	An adaptable microvalving system for on-chip polymerase chain reactions. <i>Journal of Immunological Methods</i> , 2005, 305, 48-58.	1.4	30
14	Inherited and acquired variations in the hyaluronan synthase 1 (HAS1) gene may contribute to disease progression in multiple myeloma and Waldenstrom macroglobulinemia. <i>Blood</i> , 2008, 112, 5111-5121.	1.4	30
15	Dynamic switching and real-time machine learning for improved human control of assistive biomedical robots. , 2012, , .		29
16	Cluster-based upper body marker models for three-dimensional kinematic analysis: Comparison with an anatomical model and reliability analysis. <i>Journal of Biomechanics</i> , 2018, 72, 228-234.	2.1	29
17	Tuning-free step-size adaptation. , 2012, , .		27
18	Characterization of normative angular joint kinematics during two functional upper limb tasks. <i>Gait and Posture</i> , 2019, 69, 176-186.	1.4	27

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19	Quantitative Eye Gaze and Movement Differences in Visuomotor Adaptations to Varying Task Demands Among Upper-Extremity Prosthesis Users. <i>JAMA Network Open</i> , 2019, 2, e1911197.	5.9	26
20	Aberrant Splicing, Hyaluronan Synthases and Intracellular Hyaluronan as Drivers of Oncogenesis and Potential Drug Targets. <i>Current Cancer Drug Targets</i> , 2013, 13, 347-361.	1.6	25
21	Learning from demonstration: Teaching a myoelectric prosthesis with an intact limb via reinforcement learning. , 2017, 2017, 1457-1464.		20
22	Multiple Myeloma Includes Phenotypically Defined Subsets of Clonotypic CD20+ B Cells that Persist during Treatment with Rituximab. <i>Clinical Medicine Oncology</i> , 2008, 2, CMO.S615.	0.3	17
23	Real-time prediction learning for the simultaneous actuation of multiple prosthetic joints. , 2013, 2013, 6650435.		16
24	Assessment of feature selection and classification methods for recognizing motor imagery tasks from electroencephalographic signals. <i>Artificial Intelligence Research</i> , 2016, 6, .	0.3	15
25	Gaze and Movement Assessment (GaMA): Inter-site validation of a visuomotor upper limb functional protocol. <i>PLoS ONE</i> , 2019, 14, e0219333.	2.5	14
26	Myoelectric prosthesis users and non-disabled individuals wearing a simulated prosthesis exhibit similar compensatory movement strategies. <i>Journal of NeuroEngineering and Rehabilitation</i> , 2021, 18, 72.	4.6	14
27	A Collaborative Approach to the Simultaneous Multi-joint Control of a Prosthetic Arm. , 2015, , .		13
28	Reactive Reinforcement Learning in Asynchronous Environments. <i>Frontiers in Robotics and AI</i> , 2018, 5, 79.	3.2	13
29	Compensatory strategies of body-powered prosthesis users reveal primary reliance on trunk motion and relation to skill level. <i>Clinical Biomechanics</i> , 2020, 72, 122-129.	1.2	13
30	Representing high-dimensional data to intelligent prostheses and other wearable assistive robots: A first comparison of tile coding and selective Kanerva coding. , 2017, 2017, 1443-1450.		12
31	Machine Learning for the Control of Prosthetic Arms: Using Electromyographic Signals for Improved Performance. <i>IEEE Signal Processing Magazine</i> , 2021, 38, 46-53.	5.6	12
32	Recurrent Convolutional Neural Networks as an Approach to Position-Aware Myoelectric Prosthesis Control. <i>IEEE Transactions on Biomedical Engineering</i> , 2022, 69, 2243-2255.	4.2	12
33	Machine learning and unlearning to autonomously switch between the functions of a myoelectric arm. , 2016, , .		10
34	Alternative Splicing in Chronic Myeloid Leukemia (CML): A Novel Therapeutic Target?. <i>Current Cancer Drug Targets</i> , 2013, 13, 735-748.	1.6	10
35	Detection of pathogenic <i>Escherichia coli</i> on potentially contaminated beef carcasses using cassette PCR and conventional PCR. <i>BMC Microbiology</i> , 2019, 19, 175.	3.3	9
36	Hand Function Kinematics when using a Simulated Myoelectric Prosthesis. , 2019, 2019, 169-174.		9

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37	A method for cytometric image parameterization. Optics Express, 2006, 14, 12720.	3.4	8
38	Introspective Agents: Confidence Measures for General Value Functions. Lecture Notes in Computer Science, 2016, , 258-261.	1.3	8
39	Nanotechnology and medical devices: Risk, regulation and "meta"™ registration. World Journal of Engineering, 2013, 10, 191-198.	1.6	8
40	Interpretable PID parameter tuning for control engineering using general dynamic neural networks: An extensive comparison. PLoS ONE, 2020, 15, e0243320.	2.5	8
41	Accelerating Learning in Constructive Predictive Frameworks with the Successor Representation. , 2018, , .		6
42	Preliminary Testing of a Telerobotic Haptic System and Analysis of Visual Attention During a Playful Activity. , 2018, , .		5
43	Embodied Cooperation to Promote Forgiving Interactions With Autonomous Machines. Frontiers in Neurorobotics, 2021, 15, 661603.	2.8	5
44	Rapid simulation of wide-angle scattering from mitochondria in single cells. Optics Express, 2008, 16, 12819.	3.4	4
45	Multiple myeloma may include microvessel endothelial cells of malignant origin. Leukemia and Lymphoma, 2010, 51, 592-597.	1.3	4
46	Acquiring a broad range of empirical knowledge in real time by temporal-difference learning. , 2012, , .		4
47	Monitoring food pathogens: Novel instrumentation for cassette PCR testing. PLoS ONE, 2018, 13, e0197100.	2.5	4
48	Exploring the Impact of Machine-Learned Predictions on Feedback from an Artificial Limb. , 2019, 2019, 1239-1246.		4
49	Genetic Abnormalities in Waldenström's Macroglobulinemia. Clinical Lymphoma and Myeloma, 2009, 9, 30-32.	1.4	3
50	Steps toward knowledgeable neuroprostheses. , 2016, , .		3
51	Initial Investigation of a Self-Adjusting Wrist Control System to Maintain Prosthesis Terminal Device Orientation Relative to the Ground Reference Frame. , 2018, , .		3
52	The Effect of an Automatically Levelling Wrist Control System. , 2019, 2019, 816-823.		3
53	Examining the Use of Temporal-Difference Incremental Delta-Bar-Delta for Real-World Predictive Knowledge Architectures. Frontiers in Robotics and AI, 2020, 7, 34.	3.2	3
54	Aberrant Splicing In Patients With AML Is Associated With Over- Expression Of Specific Splicing Factors. Blood, 2013, 122, 3749-3749.	1.4	3

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55	Computational analysis of mitochondrial placement and aggregation effects on wide-angle cell scattering patterns. Proceedings of SPIE, 2009, , .	0.8	2
56	4. Upper and Lower Limb Robotic Prostheses. Rehabilitation Science in Practice Series, 2017, , 99-144.	0.0	2
57	Gamma-Nets: Generalizing Value Estimation over Timescale. Proceedings of the AAAI Conference on Artificial Intelligence, 2020, 34, 5717-5725.	4.9	2
58	Towards robust cellular image classification: theoretical foundations for wide-angle scattering pattern analysis. Biomedical Optics Express, 2010, 1, 1225.	2.9	1
59	Context-Aware Learning from Demonstration: Using Camera Data to Support the Synergistic Control of a Multi-Joint Prosthetic Arm. , 2018, , .		1
60	Editorial: Peripheral Nervous System-Machine Interfaces (PNS-MI). Frontiers in Neurorobotics, 2017, 11, 54.	2.8	0
61	Supporting Play by Applying Haptic Guidance Along a Surface Learnt from Single Motion Trajectories. , 2019, 2019, 175-180.		0
62	Sub-centimeter 3D gaze vector accuracy on real-world tasks: an investigation of eye and motion capture calibration routines. , 2021, , .		0
63	Comparison of a Miniaturized Cassette PCR System with a Commercially Available Platform for Detecting Escherichia coli in Beef Carcass Swabs. Micromachines, 2021, 12, 959.	2.9	0
64	Accumulation of Inherited and Acquired Mutations in Hyaluronan Synthase1 Gene May Contribute Oncogenesis in Multiple Myeloma and Waldenstrom's Macroglobulinemia.. Blood, 2006, 108, 3432-3432.	1.4	0
65	FISH and Chips: Novel, Point of Care Technology To Detect Chromosomal Abnormalities.. Blood, 2006, 108, 3402-3402.	1.4	0
66	Germline and Somatic Mutations in the Hyaluronan Synthase-1 (HAS1) Gene May Contribute to Oncogenesis in Multiple Myeloma (MM) and Waldenstrom's Macroglobulinemia (WM).. Blood, 2007, 110, 2488-2488.	1.4	0
67	Abstract 3972: MicroRNAs as potential therapeutic agents for AML: Targeting the AML1-ETO Oncogene by pre-miR-520 and -373. , 2015, , .		0
68	Comparison of Attentive and Explicit Eye Gaze Interfaces for Controlling Haptic Guidance of a Robotic Controller. Journal of Medical Robotics Research, 2019, 04, 1950005.	1.2	0
69	Preliminary testing of eye gaze interfaces for controlling a haptic system intended to support play in children with physical impairments: Attentive versus explicit interfaces. Journal of Rehabilitation and Assistive Technologies Engineering, 2022, 9, 205566832210796.	0.9	0
70	Prediction, Knowledge, and Explainability: Examining the Use of General Value Functions in Machine Knowledge. Frontiers in Artificial Intelligence, 2022, 5, 826724.	3.4	0
71	What's a good prediction? Challenges in evaluating an agent's knowledge. Adaptive Behavior, 0, , 105971232210958.	1.9	0