Daniel A Braun

List of Publications by Year
in descending order

57 papers	2,120 citations	394421 19 h-index	254184 43 g-index
61 all docs	61 docs citations	61 times ranked	2347 citing authors

#	Article	IF	Citations
1	Risk-Sensitivity in Sensorimotor Control. Frontiers in Human Neuroscience, 2011, 5, 1.	2.0	363
2	Non-Equilibrium Relations for Bounded Rational Decision-Making in Changing Environments. Entropy, 2018, 20, 1.	2.2	231
3	Motor Task Variation Induces Structural Learning. Current Biology, 2009, 19, 352-357.	3.9	214
4	Structure learning in action. Behavioural Brain Research, 2010, 206, 157-165.	2.2	176
5	Thermodynamics as a theory of decision-making with information-processing costs. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20120683.	2.1	139
6	Optimal Control Predicts Human Performance on Objects with Internal Degrees of Freedom. PLoS Computational Biology, 2009, 5, e1000419.	3.2	98
7	Learning Optimal Adaptation Strategies in Unpredictable Motor Tasks. Journal of Neuroscience, 2009, 29, 6472-6478.	3.6	82
8	Nash Equilibria in Multi-Agent Motor Interactions. PLoS Computational Biology, 2009, 5, e1000468.	3.2	75
9	Risk-Sensitive Optimal Feedback Control Accounts for Sensorimotor Behavior under Uncertainty. PLoS Computational Biology, 2010, 6, e1000857.	3.2	64
10	Bounded Rationality, Abstraction, and Hierarchical Decision-Making: An Information-Theoretic Optimality Principle. Frontiers in Robotics and AI, 2015, 2, .	3.2	62
11	Facilitation of learning induced by both random and gradual visuomotor task variation. Journal of Neurophysiology, 2012, 107, 1111-1122.	1.8	47
12	Risk-sensitivity and the mean-variance trade-off: decision making in sensorimotor control. Proceedings of the Royal Society B: Biological Sciences, 2011, 278, 2325-2332.	2.6	43
13	Risk sensitivity in a motor task with speed-accuracy trade-off. Journal of Neurophysiology, 2011, 105, 2668-2674.	1.8	40
14	A Minimum Relative Entropy Principle for Learning and Acting. Journal of Artificial Intelligence Research, 0, 38, 475-511.	7.0	32
15	Path integral control and bounded rationality. , 2011, , .		30
16	Motor coordination: when two have to act as one. Experimental Brain Research, 2011, 211, 631-641.	1.5	27
17	Information, Utility and Bounded Rationality. Lecture Notes in Computer Science, 2011, , 269-274.	1.3	27
18	Structure Learning in a Sensorimotor Association Task. PLoS ONE, 2010, 5, e8973.	2.5	26

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19	Inferring Visuomotor Priors for Sensorimotor Learning. PLoS Computational Biology, 2011, 7, e1001112.	3.2	26
20	Bounded Rational Decision-Making from Elementary Computations That Reduce Uncertainty. Entropy, 2019, 21, 375.	2.2	23
21	The two kinds of free energy and the Bayesian revolution. PLoS Computational Biology, 2020, 16, e1008420.	3.2	23
22	Assessing randomness and complexity in human motion trajectories through analysis of symbolic sequences. Frontiers in Human Neuroscience, 2014, 8, 168.	2.0	21
23	The effect of model uncertainty on cooperation in sensorimotor interactions. Journal of the Royal Society Interface, 2013, 10, 20130554.	3.4	18
24	A sensorimotor paradigm for Bayesian model selection. Frontiers in Human Neuroscience, 2012, 6, 291.	2.0	17
25	Signaling equilibria in sensorimotor interactions. Cognition, 2015, 141, 73-86.	2.2	16
26	Quantifying Motor Task Performance by Bounded Rational Decision Theory. Frontiers in Neuroscience, 2018, 12, 932.	2.8	16
27	Multi-Modal Pain Intensity Assessment Based on Physiological Signals: A Deep Learning Perspective. Frontiers in Physiology, 2021, 12, 720464.	2.8	16
28	Structure Learning in Bayesian Sensorimotor Integration. PLoS Computational Biology, 2015, 11, e1004369.	3.2	15
29	Information-Theoretic Bounded Rationality and Î¼-Optimality. Entropy, 2014, 16, 4662-4676.	2.2	14
30	Generalized Thompson sampling for sequential decision-making and causal inference. Complex Adaptive Systems Modeling, 2014, 2, .	1.6	13
31	Risk-Sensitivity in Bayesian Sensorimotor Integration. PLoS Computational Biology, 2012, 8, e1002698.	3.2	12
32	Occam's Razor in sensorimotor learning. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20132952.	2.6	12
33	Specialization in Hierarchical Learning Systems. Neural Processing Letters, 2020, 52, 2319-2352.	3.2	12
34	A Reward-Maximizing Spiking Neuron as a Bounded Rational Decision Maker. Neural Computation, 2015, 27, 1686-1720.	2.2	9
35	Analyzing Abstraction and Hierarchical Decision-Making in Absolute Identification by Information-Theoretic Bounded Rationality. Frontiers in Neuroscience, 2019, 13, 1230.	2.8	8
36	Planning with Information-Processing Constraints and Model Uncertainty in Markov Decision Processes. Lecture Notes in Computer Science, 2016, , 475-491.	1.3	7

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37	A Bayesian Rule for Adaptive Control based on Causal Interventions. , 2010, , .		7
38	Nash equilibria in human sensorimotor interactions explained by Q-learning with intrinsic costs. Scientific Reports, 2021, 11, 20779.	3.3	7
39	Monte Carlo methods for exact & efficient solution of the generalized optimality equations. , 2014, , .		6
40	A conversion between utility and information. , 2010, , .		6
41	Optimal Control: When Redundancy Matters. Current Biology, 2007, 17, R973-R975.	3.9	5
42	An information-theoretic on-line update principle for perception-action coupling. , 2017, , .		5
43	Systems of Bounded Rational Agents with Information-Theoretic Constraints. Neural Computation, 2019, 31, 440-476.	2.2	5
44	Bounded Rational Decision-Making with Adaptive Neural Network Priors. Lecture Notes in Computer Science, 2018, , 213-225.	1.3	5
45	Bounded rational response equilibria in human sensorimotor interactions. Proceedings of the Royal Society B: Biological Sciences, 2021, 288, 20212094.	2.6	4
46	An Information-theoretic On-line Learning Principle for Specialization in Hierarchical Decision-Making Systems. , 2019, , .		3
47	Human group coordination in a sensorimotor task with neuron-like decision-making. Scientific Reports, 2020, 10, 8226.	3.3	3
48	What is epistemic value in free energy models of learning and acting? A bounded rationality perspective. Cognitive Neuroscience, 2015, 6, 215-216.	1.4	2
49	Bio-inspired feedback-circuit implementation of discrete, free energy optimizing, winner-take-all computations. Biological Cybernetics, 2016, 110, 135-150.	1.3	2
50	Decision-Making under Ambiguity Is Modulated by Visual Framing, but Not by Motor vs. Non-Motor Context. Experiments and an Information-Theoretic Ambiguity Model. PLoS ONE, 2016, 11, e0153179.	2.5	2
51	Online Adaptation and Over-Trial Learning in Macaque Visuomotor Control. Frontiers in Computational Neuroscience, 2011, 5, 27.	2.1	1
52	Representing preorders with injective monotones. Theory and Decision, 2022, 93, 663-690.	1.0	1
53	Curiosity-driven learning with Context Tree Weighting. , 2014, , .		0
54	Developing neural networks with neurons competing for survival. , 2015, , .		0

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55	Entropic Movement Complexity Reflects Subjective Creativity Rankings of Visualized Hand Motion Trajectories. Frontiers in Psychology, 2015, 6, 1879.	2.1	0
56	Reinforcement Learning and the Bayesian Control Rule. Lecture Notes in Computer Science, 2011, , 281-285.	1.3	0
57	Structural Learning in Sensorimotor Control. , 2012, , 3208-3211.		0