

# Garrett Kenyon

## List of Publications by Year in descending order

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Version: 2024-02-01

65  
papers

1,000  
citations

687363

13  
h-index

477307

29  
g-index

69  
all docs

69  
docs citations

69  
times ranked

705  
citing authors

#	ARTICLE	IF	CITATIONS
1	Imager-Based Techniques for Analyzing Metallic Melt Pools for Additive Manufacturing. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 63-69.	0.5	0
2	A regression algorithm for accelerated lattice QCD that exploits sparse inference on the D-Wave quantum annealer. Scientific Reports, 2020, 10, 10915.	3.3	5
3	Using Sinusoidally-Modulated Noise as a Surrogate for Slow-Wave Sleep to Accomplish Stable Unsupervised Dictionary Learning in a Spike-Based Sparse Coding Model. , 2020, , .		9
4	Modeling Biological Immunity to Adversarial Examples. , 2020, , .		10
5	Can Lateral Inhibition for Sparse Coding Help Explain V1 Neuronal Responses To Natural Stimuli?. , 2020, , .		4
6	Machine Learning in a Post Moore's Law World: Quantum vs. Neuromorphic Substrates. , 2020, , .		3
7	Sparse MP4. , 2020, , .		2
8	Separating musical sources with convolutional sparse coding. , 2019, , .		0
9	Editorial: Encoding Visual Features by Parallel Ganglion Cell Initiated Pathways in the Healthy, Diseased and Artificial Retina. Frontiers in Cellular Neuroscience, 2019, 13, 229.	3.7	0
10	A Neuromorphic Sparse Coding Defense to Adversarial Images. , 2019, , .		9
11	Unsupervised Dictionary Learning via a Spiking Locally Competitive Algorithm. , 2019, , .		4
12	A compressed sensing X-ray camera with a multilayer architecture. Journal of Instrumentation, 2018, 13, C01035-C01035.	1.2	4
13	Reference-free detection of minute, non-visible, damage using full-field, high-resolution mode shapes output-only identified from digital videos of structures. Structural Health Monitoring, 2018, 17, 514-531.	7.5	50
14	Deep Sparse Coding for Invariant Multimodal Halle Berry Neurons. , 2018, , .		13
15	Radiographic Inference Based on a Model of V1 Simple Cells Implemented on the D-Wave 2X Quantum Annealing Computer. , 2018, , .		0
16	Image Classification Using Quantum Inference on the D-Wave 2X. , 2018, , .		14
17	Can Deep Learning Learn the Principle of Closed Contour Detection?. Lecture Notes in Computer Science, 2018, , 455-460.	1.3	0
18	Sparse coding of pathology slides compared to transfer learning with deep neural networks. BMC Bioinformatics, 2018, 19, 489.	2.6	10

#	ARTICLE	IF	CITATIONS
19	Image Compression: Sparse Coding vs. Bottleneck Autoencoders. , 2018, , .		8
20	Unsupervised learning about 4D features of microparticle motion. Review of Scientific Instruments, 2018, 89, 10K109.	1.3	1
21	Efficient Full-Field Vibration Measurements and Operational Modal Analysis Using Neuromorphic Event-Based Imaging. Journal of Engineering Mechanics - ASCE, 2018, 144, .	2.9	19
22	Sparse Coding Enables the Reconstruction of High-Fidelity Images and Video from Retinal Spike Trains. , 2018, , .		10
23	Spatiotemporal video-domain high-fidelity simulation and realistic visualization of full-field dynamic responses of structures by a combination of high-spatial-resolution modal model and video motion manipulations. Structural Control and Health Monitoring, 2018, 25, e2193.	4.0	9
24	Efficient Full-Field Operational Modal Analysis Using Neuromorphic Event-Based Imaging. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 97-103.	0.5	3
25	Blind identification of full-field vibration modes of output-only structures from uniformly-sampled, possibly temporally-aliased (sub-Nyquist), video measurements. Journal of Sound and Vibration, 2017, 390, 232-256.	3.9	96
26	Blind identification of full-field vibration modes from video measurements with phase-based video motion magnification. Mechanical Systems and Signal Processing, 2017, 85, 567-590.	8.0	273
27	Learning phase-rich features from streaming auditory images. , 2016, , .		1
28	Sparse encoding of binocular images for depth inference. , 2016, , .		6
29	Automated Extraction of Mode Shapes Using Motion Magnified Video and Blind Source Separation. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 355-360.	0.5	11
30	Decoupling sparse coding of SIFT descriptors for large-scale visual recognition. Proceedings of SPIE, 2013, , .	0.8	2
31	Interpreting individual classifications of hierarchical networks. , 2013, , .		32
32	On the role of shape prototypes in hierarchical models of vision. , 2013, , .		0
33	Biologically inspired distributed sensor networks: Collective signal amplification via ultra-low bandwidth spike-based communication. , 2013, , .		0
34	Combining multiple visual processing streams for locating and classifying objects in video. , 2012, , .		3
35	A symmetry-breaking generative model of a simple-cell/complex-cell hierarchy. , 2012, , .		0
36	Development of invariant feature maps via a computational model of simple and complex cells. , 2012, , .		0

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37	Hierarchical discriminative sparse coding via bidirectional connections. , 2011, , .		3
38	Learning Features of Simple and Complex Cells: A Generative Approach via Multiplicative Interactions. Nature Precedings, 2011, , .	0.1	0
39	Visualizing classification of natural video sequences using sparse, hierarchical models of cortex.. Nature Precedings, 2011, , .	0.1	0
40	Ultra-fast detection of salient contours through horizontal connections in the primary visual cortex. Europhysics Letters, 2011, 93, 64001.	2.0	2
41	Model Cortical Association Fields Account for the Time Course and Dependence on Target Complexity of Human Contour Perception. PLoS Computational Biology, 2011, 7, e1002162.	3.2	10
42	Extreme synergy: Spatiotemporal correlations enable rapid image reconstruction from computer-generated spike trains. Journal of Vision, 2010, 10, 1-27.	0.3	3
43	Comparing Speed-of-Sight studies using rendered vs. natural images. Journal of Vision, 2010, 10, 986-986.	0.3	1
44	An improved model for contour completion in V1 using learned feature correlation statistics. Journal of Vision, 2010, 10, 1162-1162.	0.3	1
45	Large-scale functional models of visual cortex for remote sensing. , 2009, , .		9
46	Reliable computing with unreliable components: Using separable environments to stabilize long-term information storage. Physica D: Nonlinear Phenomena, 2008, 237, 1196-1206.	2.8	2
47	Cellular Automata for Distributed Sensor Networks. International Journal of High Performance Computing Applications, 2008, 22, 167-176.	3.7	6
48	Extracting Number-Selective Responses from Coherent Oscillations in a Computer Model. Neural Computation, 2007, 19, 1766-1797.	2.2	2
49	SNM-DAT: Simulation of a heterogeneous network for nuclear border security. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2007, 579, 414-417.	1.6	1
50	A reconfigurable computing framework for multi-scale cellular image processing. Microprocessors and Microsystems, 2007, 31, 546-563.	2.8	23
51	See globally, spike locally: oscillations in a retinal model encode large visual features. Biological Cybernetics, 2006, 95, 327-348.	1.3	15
52	A high frequency resonance in the responses of retinal ganglion cells to rapidly modulated stimuli: A computer model. Visual Neuroscience, 2006, 23, 779-794.	1.0	6
53	Time-to-collision estimation from motion based on primate visual processing. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2005, 27, 1279-1291.	13.9	17
54	Correlated Firing Improves Stimulus Discrimination in a Retinal Model. Neural Computation, 2004, 16, 2261-2291.	2.2	24

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55	Stimulus-Specific Oscillations in a Retinal Model. IEEE Transactions on Neural Networks, 2004, 15, 1083-1091.	4.2	16
56	Dynamic segmentation of gray-scale images in a computer model of the mammalian retina. , 2004, , .		3
57	Role of synaptic feedback and intrinsic voltage-gated currents in shaping cone light responses. Neurocomputing, 2003, 52-54, 125-133.	5.9	0
58	A model of high-frequency oscillatory potentials in retinal ganglion cells. Visual Neuroscience, 2003, 20, 465-480.	1.0	36
59	A mathematical model of the cerebellar-olivary system II: motor adaptation through systematic disruption of climbing fiber equilibrium. Journal of Computational Neuroscience, 1998, 5, 71-90.	1.0	40
60	A mathematical model of the cerebellar-olivary system I: self-regulating equilibrium of climbing fiber activity. Journal of Computational Neuroscience, 1998, 5, 17-33.	1.0	75
61	Gap junctions with amacrine cells provide a feedback pathway for ganglion cells within the retina. Proceedings of the Royal Society B: Biological Sciences, 1998, 265, 919-925.	2.6	37
62	A model of long-term memory storage in the cerebellar cortex: A possible role for plasticity at parallel fiber synapses onto stellate/basket interneurons. Proceedings of the National Academy of Sciences of the United States of America, 1997, 94, 14200-14205.	7.1	41
63	A Continuous Time Model of Synaptic Plasticity in the Cerebellar Cortex. , 1997, , 99-105.		1
64	An Entropy Measure for Revealing Deterministic Structure in Spike Train Data. , 1993, , 43-47.		0
65	A general diffusion model for analyzing the efficacy of synaptic input to threshold neurons. Biological Cybernetics, 1992, 67, 133-141.	1.3	11