

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	Blind identification of full-field vibration modes from video measurements with phase-based video motion magnification. <i>Mechanical Systems and Signal Processing</i> , 2017, 85, 567-590.	8.0	273
2	Blind identification of full-field vibration modes of output-only structures from uniformly-sampled, possibly temporally-aliased (sub-Nyquist), video measurements. <i>Journal of Sound and Vibration</i> , 2017, 390, 232-256.	3.9	96
3	A mathematical model of the cerebellar-olivary system I: self-regulating equilibrium of climbing fiber activity. <i>Journal of Computational Neuroscience</i> , 1998, 5, 17-33.	1.0	75
4	Reference-free detection of minute, non-visible, damage using full-field, high-resolution mode shapes output-only identified from digital videos of structures. <i>Structural Health Monitoring</i> , 2018, 17, 514-531.	7.5	50
5	A model of long-term memory storage in the cerebellar cortex: A possible role for plasticity at parallel fiber synapses onto stellate/basket interneurons. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997, 94, 14200-14205.	7.1	41
6	A mathematical model of the cerebellar-olivary system II: motor adaptation through systematic disruption of climbing fiber equilibrium. <i>Journal of Computational Neuroscience</i> , 1998, 5, 71-90.	1.0	40
7	Gap junctions with amacrine cells provide a feedback pathway for ganglion cells within the retina. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 1998, 265, 919-925.	2.6	37
8	A model of high-frequency oscillatory potentials in retinal ganglion cells. <i>Visual Neuroscience</i> , 2003, 20, 465-480.	1.0	36
9	Interpreting individual classifications of hierarchical networks. , 2013, , .		32
10	Correlated Firing Improves Stimulus Discrimination in a Retinal Model. <i>Neural Computation</i> , 2004, 16, 2261-2291.	2.2	24
11	A reconfigurable computing framework for multi-scale cellular image processing. <i>Microprocessors and Microsystems</i> , 2007, 31, 546-563.	2.8	23
12	Efficient Full-Field Vibration Measurements and Operational Modal Analysis Using Neuromorphic Event-Based Imaging. <i>Journal of Engineering Mechanics - ASCE</i> , 2018, 144, .	2.9	19
13	Time-to-collision estimation from motion based on primate visual processing. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence</i> , 2005, 27, 1279-1291.	13.9	17
14	Stimulus-Specific Oscillations in a Retinal Model. <i>IEEE Transactions on Neural Networks</i> , 2004, 15, 1083-1091.	4.2	16
15	See globally, spike locally: oscillations in a retinal model encode large visual features. <i>Biological Cybernetics</i> , 2006, 95, 327-348.	1.3	15
16	Image Classification Using Quantum Inference on the D-Wave 2X. , 2018, , .		14
17	Deep Sparse Coding for Invariant Multimodal Halle Berry Neurons. , 2018, , .		13
18	A general diffusion model for analyzing the efficacy of synaptic input to threshold neurons. <i>Biological Cybernetics</i> , 1992, 67, 133-141.	1.3	11

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19	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
20	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
21	Sparse coding of pathology slides compared to transfer learning with deep neural networks. BMC Bioinformatics, 2018, 19, 489.	2.6	10
22	Sparse Coding Enables the Reconstruction of High-Fidelity Images and Video from Retinal Spike Trains. , 2018, , .		10
23	Modeling Biological Immunity to Adversarial Examples. , 2020, , .		10
24	Large-scale functional models of visual cortex for remote sensing. , 2009, , .		9
25	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
26	A Neuromorphic Sparse Coding Defense to Adversarial Images. , 2019, , .		9
27	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
28	Image Compression: Sparse Coding vs. Bottleneck Autoencoders. , 2018, , .		8
29	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
30	Cellular Automata for Distributed Sensor Networks. International Journal of High Performance Computing Applications, 2008, 22, 167-176.	3.7	6
31	Sparse encoding of binocular images for depth inference. , 2016, , .		6
32	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
33	A compressed sensing X-ray camera with a multilayer architecture. Journal of Instrumentation, 2018, 13, C01035-C01035.	1.2	4
34	Unsupervised Dictionary Learning via a Spiking Locally Competitive Algorithm. , 2019, , .		4
35	Can Lateral Inhibition for Sparse Coding Help Explain V1 Neuronal Responses To Natural Stimuli?. , 2020, , .		4
36	Dynamic segmentation of gray-scale images in a computer model of the mammalian retina. , 2004, , .		3

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37	Extreme synergy: Spatiotemporal correlations enable rapid image reconstruction from computer-generated spike trains. <i>Journal of Vision</i> , 2010, 10, 1-27.	0.3	3
38	Hierarchical discriminative sparse coding via bidirectional connections. , 2011, , .		3
39	Combining multiple visual processing streams for locating and classifying objects in video. , 2012, , .		3
40	Efficient Full-Field Operational Modal Analysis Using Neuromorphic Event-Based Imaging. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2017, , 97-103.	0.5	3
41	Machine Learning in a Post Moore™s Law World: Quantum vs. Neuromorphic Substrates. , 2020, , .		3
42	Extracting Number-Selective Responses from Coherent Oscillations in a Computer Model. <i>Neural Computation</i> , 2007, 19, 1766-1797.	2.2	2
43	Reliable computing with unreliable components: Using separable environments to stabilize long-term information storage. <i>Physica D: Nonlinear Phenomena</i> , 2008, 237, 1196-1206.	2.8	2
44	Ultra-fast detection of salient contours through horizontal connections in the primary visual cortex. <i>Europhysics Letters</i> , 2011, 93, 64001.	2.0	2
45	Decoupling sparse coding of SIFT descriptors for large-scale visual recognition. <i>Proceedings of SPIE</i> , 2013, , .	0.8	2
46	Sparse MP4. , 2020, , .		2
47	SNM-DAT: Simulation of a heterogeneous network for nuclear border security. <i>Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment</i> , 2007, 579, 414-417.	1.6	1
48	Learning phase-rich features from streaming auditory images. , 2016, , .		1
49	Unsupervised learning about 4D features of microparticle motion. <i>Review of Scientific Instruments</i> , 2018, 89, 10K109.	1.3	1
50	A Continuous Time Model of Synaptic Plasticity in the Cerebellar Cortex. , 1997, , 99-105.		1
51	Comparing Speed-of-Sight studies using rendered vs. natural images. <i>Journal of Vision</i> , 2010, 10, 986-986.	0.3	1
52	An improved model for contour completion in V1 using learned feature correlation statistics. <i>Journal of Vision</i> , 2010, 10, 1162-1162.	0.3	1
53	Role of synaptic feedback and intrinsic voltage-gated currents in shaping cone light responses. <i>Neurocomputing</i> , 2003, 52-54, 125-133.	5.9	0
54	Learning Features of Simple and Complex Cells: A Generative Approach via Multiplicative Interactions. <i>Nature Precedings</i> , 2011, , .	0.1	0

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55	Visualizing classification of natural video sequences using sparse, hierarchical models of cortex.. Nature Precedings, 2011, , .	0.1	0
56	A symmetry-breaking generative model of a simple-cell/complex-cell hierarchy. , 2012, , .		0
57	Development of invariant feature maps via a computational model of simple and complex cells. , 2012, , .		0
58	On the role of shape prototypes in hierarchical models of vision. , 2013, , .		0
59	Biologically inspired distributed sensor networks: Collective signal amplification via ultra-low bandwidth spike-based communication. , 2013, , .		0
60	Radiographic Inference Based on a Model of V1 Simple Cells Implemented on the D-Wave 2X Quantum Annealing Computer. , 2018, , .		0
61	Can Deep Learning Learn the Principle of Closed Contour Detection?. Lecture Notes in Computer Science, 2018, , 455-460.	1.3	0
62	Separating musical sources with convolutional sparse coding. , 2019, , .		0
63	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
64	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
65	An Entropy Measure for Revealing Deterministic Structure in Spike Train Data. , 1993, , 43-47.		0