Gabriel Kreiman

List of Publications by Year
in descending order

101 papers	13,848 citations	126907 33 h-index	69250 77 g-index
108 all docs	108 docs citations	108 times ranked	19321 citing authors

#	Article	IF	Citations
1	Neurons detect cognitive boundaries to structure episodic memories in humans. Nature Neuroscience, 2022, 25, 358-368.	14.8	51
2	Beyond the Cane: Describing Urban Scenes to Blind People for Mobility Tasks. ACM Transactions on Accessible Computing, 2022, 15, 1-29.	2.4	3
3	Face neurons encode nonsemantic features. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2118705119.	7.1	4
4	Do computational models of vision need shape-based representations? Evidence from an individual with intriguing visual perceptions. Cognitive Neuropsychology, 2022, 39, 75-77.	1.1	1
5	From the Highest Echelons of Visual Processing to Cognition. , 2021, , 112-132.		0
6	Beauty is in the eye of the machine. Nature Human Behaviour, 2021, 5, 675-676.	12.0	1
7	Mesoscopic physiological interactions in the human brain reveal small-world properties. Cell Reports, 2021, 36, 109585.	6.4	7
8	When Pigs Fly: Contextual Reasoning in Synthetic and Natural Scenes. , 2021, , .		3
9	Localized task-invariant emotional valence encoding revealed by intracranial recordings. Social Cognitive and Affective Neuroscience, 2021, , .	3.0	1
10	Putting Visual Object Recognition in Context. , 2020, 2020, 12982-12991.		21
11	Can Deep Learning Recognize Subtle Human Activities?. , 2020, , .		6
12	Incorporating intrinsic suppression in deep neural networks captures dynamics of adaptation in neurophysiology and perception. Science Advances, 2020, 6, .	10.3	12
13	Minimal videos: Trade-off between spatial and temporal information in human and machine vision. Cognition, 2020, 201, 104263.	2.2	0
14	XDream: Finding preferred stimuli for visual neurons using generative networks and gradient-free optimization. PLoS Computational Biology, 2020, 16, e1007973.	3.2	10
15	Beyond the feedforward sweep: feedback computations in the visual cortex. Annals of the New York Academy of Sciences, 2020, 1464, 222-241.	3.8	44
16	A neural network trained for prediction mimics diverse features of biological neurons and perception. Nature Machine Intelligence, 2020, 2, 210-219.	16.0	62
17	Can Deep Learning Recognize Subtle Human Activities?. IEEE Computer Society Conference on Computer Vision and Pattern Recognition Workshops, 2020, 2020, .	0.0	0
18	Title is missing!. , 2020, 16, e1007973.		0

#	Article	IF	Citations
19	Title is missing!. , 2020, 16, e1007973.		0
20	Title is missing!. , 2020, 16, e1007973.		0
21	Title is missing!. , 2020, 16, e1007973.		0
22	Title is missing!. , 2020, 16, e1007973.		0
23	Title is missing!. , 2020, 16, e1007973.		0
24	Neural Interactions Underlying Visuomotor Associations in the Human Brain. Cerebral Cortex, 2019, 29, 4551-4567.	2.9	3
25	What do neurons really want? The role of semantics in cortical representations. Psychology of Learning and Motivation - Advances in Research and Theory, 2019, , 195-221.	1.1	0
26	Evolving Images for Visual Neurons Using a Deep Generative Network Reveals Coding Principles and Neuronal Preferences. Cell, 2019, 177, 999-1009.e10.	28.9	153
27	It's a small dimensional world after all. Physics of Life Reviews, 2019, 29, 96-97.	2.8	1
28	Computational strategies used during hybrid visual search. Journal of Vision, 2019, 19, 132.	0.3	0
29	Adaptation in models of visual object recognition. Journal of Vision, 2019, 19, 210a.	0.3	0
30	Zero-shot neural decoding from rhesus macaque inferior temporal cortex using deep convolutional neural networks. Journal of Vision, 2019, 19, 209a.	0.3	1
31	What is changing when: Decoding visual information in movies from human intracranial recordings. NeuroImage, 2018, 180, 147-159.	4.2	16
32	Minimal memory for details in real life events. Scientific Reports, 2018, 8, 16701.	3.3	22
33	Finding any Waldo with zero-shot invariant and efficient visual search. Nature Communications, 2018, 9, 3730.	12.8	25
34	Learning scene gist with convolutional neural networks to improve object recognition. , 2018, , .		8
35	Recurrent computations for visual pattern completion. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8835-8840.	7.1	139
36	Two targets, held in memory, can guide search; four targets cannot.. Journal of Vision, 2018, 18, 288.	0.3	0

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37	Rapid learning of meaningful image interpretation. Journal of Vision, 2018, 18, 1362.	0.3	0
38	Recognition of Occluded Objects. Cognitive Science and Technology, 2017, , 41-58.	0.4	11
39	A null model for cortical representations with grandmothers galore. Language, Cognition and Neuroscience, 2017, 32, 274-285.	1.2	4
40	Neuronal correlates of rapid learning in the human medial temporal lobe. Journal of Vision, 2017, 17, 483.	0.3	0
41	Task dependent modulation before, during and after visually evoked responses in human intracranial recordings. Journal of Vision, 2017, 17, 983.	0.3	0
42	A machine learning approach to predict episodic memory formation. , 2016, , .		0
43	Bottom-Up and Top-Down Input Augment the Variability of Cortical Neurons. Neuron, 2016, 91, 540-547.	8.1	26
44	Predicting episodic memory formation for movie events. Scientific Reports, 2016, 6, 30175.	3.3	10
45	f-divergence cutoff index to simultaneously identify differential expression in the integrated transcriptome and proteome. Nucleic Acids Research, 2016, 44, e97-e97.	14.5	7
46	There's Waldo! A Normalization Model of Visual Search Predicts Single-Trial Human Fixations in an Object Search Task. Cerebral Cortex, 2016, 26, 3064-3082.	2.9	13
47	Cascade of neural processing orchestrates cognitive control in human frontal cortex. ELife, 2016, 5, .	6.0	33
48	Probing human intracranial visual responses with commercial movies. Journal of Vision, 2016, 16, 502.	0.3	0
49	Sensitivity to timing and order in human visual cortex. Journal of Neurophysiology, 2015, 113, 1656-1669.	1.8	4
50	Corticocortical feedback increases the spatial extent of normalization. Frontiers in Systems Neuroscience, 2014, 8, 105.	2.5	42
51	Neural Dynamics Underlying Target Detection in the Human Brain. Journal of Neuroscience, 2014, 34, 3042-3055.	3.6	19
52	Short temporal asynchrony disrupts visual object recognition. Journal of Vision, 2014, 14, 7-7.	0.3	7
53	Quantitative profiling of peptides from RNAs classified as noncoding. Nature Communications, 2014, 5, 5429.	12.8	55
54	Spatiotemporal Dynamics Underlying Object Completion in Human Ventral Visual Cortex. Neuron, 2014, 83, 736-748.	8.1	75

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55	Decrease in gamma-band activity tracks sequence learning. Frontiers in Systems Neuroscience, 2014, 8, 222.	2.5	7
56	Mind the quantum?. Trends in Cognitive Sciences, 2013, 17, 109-110.	7.8	6
57	Depression-Biased Reverse Plasticity Rule Is Required for Stable Learning at Top-Down Connections. PLoS Computational Biology, 2012, 8, e1002393.	3.2	12
58	Theory on the Coupled Stochastic Dynamics of Transcription and Splice-Site Recognition. PLoS Computational Biology, 2012, 8, e1002747.	3.2	6
59	Temporal stability of visually selective responses in intracranial field potentials recorded from human occipital and temporal lobes. Journal of Neurophysiology, 2012, 108, 3073-3086.	1.8	11
60	Integrated genome analysis suggests that most conserved non-coding sequences are regulatory factor binding sites. Nucleic Acids Research, 2012, 40, 7858-7869.	14.5	36
61	On the Minimization of Fluctuations in the Response Times ofÂAutoregulatory Gene Networks. Biophysical Journal, 2011, 101, 1297-1306.	0.5	19
62	Internally Generated Preactivation of Single Neurons in Human Medial Frontal Cortex Predicts Volition. Neuron, 2011, 69, 548-562.	8.1	383
63	Nine Criteria for a Measure of Scientific Output. Frontiers in Computational Neuroscience, 2011, 5, 48.	2.1	61
64	Neuroscience: What We Cannot Model, We Do Not Understand. Current Biology, 2011, 21, R123-R125.	3.9	1
65	Face Recognition: Vision and Emotions beyond the Bubble. Current Biology, 2011, 21, R888-R890.	3.9	4
66	Decoding ensemble activity from neurophysiological recordings in the temporal cortex. , 2011, 2011, 5904-7.		0
67	Conservation of transcription factor binding events predicts gene expression across species. Nucleic Acids Research, 2011, 39, 7092-7102.	14.5	25
68	Visual integration in the human brain. Journal of Vision, 2011, 11, 887-887.	0.3	0
69	Postscript: About grandmother cells and Jennifer Aniston neurons.. Psychological Review, 2010, 117, 297-299.	3.8	7
70	Measuring sparseness in the brain: Comment on Bowers (2009).. Psychological Review, 2010, 117, 291-297.	3.8	54
71	Robust Selectivity to Two-Object Images in Human Visual Cortex. Current Biology, 2010, 20, 872-879.	3.9	37
72	Widespread transcription at neuronal activity-regulated enhancers. Nature, 2010, 465, 182-187.	27.8	2,120

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73	How cortical neurons help us see: visual recognition in the human brain. Journal of Clinical Investigation, 2010, 120, 3054-3063.	8.2	17
74	Differential Gene Expression in the Developing Lateral Geniculate Nucleus and Medial Geniculate Nucleus Reveals Novel Roles for Zic4 and Foxp2 in Visual and Auditory Pathway Development. Journal of Neuroscience, 2009, 29, 13672-13683.	3.6	48
75	From Neurons to Circuits: Linear Estimation of Local Field Potentials. Journal of Neuroscience, 2009, 29, 13785-13796.	3.6	62
76	Timing, Timing, Timing: Fast Decoding of Object Information from Intracranial Field Potentials in Human Visual Cortex. Neuron, 2009, 62, 281-290.	8.1	353
77	Toward Unmasking the Dynamics of Visual Perception. Neuron, 2009, 64, 446-447.	8.1	1
78	Sparse but not â€˜Grandmother-cellâ€™ coding in the medial temporal lobe. Trends in Cognitive Sciences, 2008, 12, 87-91.	7.8	230
79	Differential Gene Expression between Sensory Neocortical Areas: Potential Roles for Ten_m3 and Bcl6 in Patterning Visual and Somatosensory Pathways. Cerebral Cortex, 2008, 18, 53-66.	2.9	62
80	Dynamic Population Coding of Category Information in Inferior Temporal and Prefrontal Cortex. Journal of Neurophysiology, 2008, 100, 1407-1419.	1.8	343
81	Biological object recognition. Scholarpedia Journal, 2008, 3, 2667.	0.3	12
82	A quantitative theory of immediate visual recognition. Progress in Brain Research, 2007, 165, 33-56.	1.4	168
83	Single unit approaches to human vision and memory. Current Opinion in Neurobiology, 2007, 17, 471-475.	4.2	25
84	Brain Science: From the Very Small to the Very Large. Current Biology, 2007, 17, R768-R770.	3.9	1
85	Gene expression changes and molecular pathways mediating activity-dependent plasticity in visual cortex. Nature Neuroscience, 2006, 9, 660-668.	14.8	199
86	Object Selectivity of Local Field Potentials and Spikes in the Macaque Inferior Temporal Cortex. Neuron, 2006, 49, 433-445.	8.1	274
87	Invariant visual representation by single neurons in the human brain. Nature, 2005, 435, 1102-1107.	27.8	1,580
88	Fast Readout of Object Identity from Macaque Inferior Temporal Cortex. Science, 2005, 310, 863-866.	12.6	720
89	Identification of sparsely distributed clusters of cis-regulatory elements in sets of co-expressed genes. Nucleic Acids Research, 2004, 32, 2889-2900.	14.5	45
90	Neural coding: computational and biophysical perspectives. Physics of Life Reviews, 2004, 1, 71-102.	2.8	30

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91	Variation in alternative splicing across human tissues. Genome Biology, 2004, 5, R74.	9.6	486
92	A gene atlas of the mouse and human protein-encoding transcriptomes. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 6062-6067.	7.1	3,290
93	Consciousness and Neurosurgery. Neurosurgery, 2004, 55, 273-282.	1.1	50
94	Single-neuron correlates of subjective vision in the human medial temporal lobe. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 8378-8383.	7.1	178
95	Stimulus Encoding and Feature Extraction by Multiple Sensory Neurons. Journal of Neuroscience, 2002, 22, 2374-2382.	3.6	50
96	Neural correlates of consciousness in humans. Nature Reviews Neuroscience, 2002, 3, 261-270.	10.2	665
97	Amygdala-enriched genes identified by microarray technology are restricted to specific amygdaloid subnuclei. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 5270-5275.	7.1	155
98	Category-specific visual responses of single neurons in the human medial temporal lobe. Nature Neuroscience, 2000, 3, 946-953.	14.8	450
99	Imagery neurons in the human brain. Nature, 2000, 408, 357-361.	27.8	315
100	Robustness and Variability of Neuronal Coding by Amplitude-Sensitive Afferents in the Weakly Electric FishEigenmannia. Journal of Neurophysiology, 2000, 84, 189-204.	1.8	68
101	Tetanic Stimulation Leads to Increased Accumulation of Ca²⁺/Calmodulin-Dependent Protein Kinase II via Dendritic Protein Synthesis in Hippocampal Neurons. Journal of Neuroscience, 1999, 19, 7823-7833.	3.6	271