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	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
2	Widespread transcription at neuronal activity-regulated enhancers. Nature, 2010, 465, 182-187.	27.8	2,120
3	Invariant visual representation by single neurons in the human brain. Nature, 2005, 435, 1102-1107.	27.8	1,580
4	Fast Readout of Object Identity from Macaque Inferior Temporal Cortex. Science, 2005, 310, 863-866.	12.6	720
5	Neural correlates of consciousness in humans. Nature Reviews Neuroscience, 2002, 3, 261-270.	10.2	665
6	Variation in alternative splicing across human tissues. Genome Biology, 2004, 5, R74.	9.6	486
7	Category-specific visual responses of single neurons in the human medial temporal lobe. Nature Neuroscience, 2000, 3, 946-953.	14.8	450
8	Internally Generated Preactivation of Single Neurons in Human Medial Frontal Cortex Predicts Volition. Neuron, 2011, 69, 548-562.	8.1	383
9	Timing, Timing, Timing: Fast Decoding of Object Information from Intracranial Field Potentials in Human Visual Cortex. Neuron, 2009, 62, 281-290.	8.1	353
10	Dynamic Population Coding of Category Information in Inferior Temporal and Prefrontal Cortex. Journal of Neurophysiology, 2008, 100, 1407-1419.	1.8	343
11	Imagery neurons in the human brain. Nature, 2000, 408, 357-361.	27.8	315
12	Object Selectivity of Local Field Potentials and Spikes in the Macaque Inferior Temporal Cortex. Neuron, 2006, 49, 433-445.	8.1	274
13	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
14	Sparse but not â€˜Grandmother-cellâ€™ coding in the medial temporal lobe. Trends in Cognitive Sciences, 2008, 12, 87-91.	7.8	230
15	Gene expression changes and molecular pathways mediating activity-dependent plasticity in visual cortex. Nature Neuroscience, 2006, 9, 660-668.	14.8	199
16	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
17	A quantitative theory of immediate visual recognition. Progress in Brain Research, 2007, 165, 33-56.	1.4	168
18	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

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19	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
20	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
21	Spatiotemporal Dynamics Underlying Object Completion in Human Ventral Visual Cortex. Neuron, 2014, 83, 736-748.	8.1	75
22	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
23	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
24	From Neurons to Circuits: Linear Estimation of Local Field Potentials. Journal of Neuroscience, 2009, 29, 13785-13796.	3.6	62
25	A neural network trained for prediction mimics diverse features of biological neurons and perception. Nature Machine Intelligence, 2020, 2, 210-219.	16.0	62
26	Nine Criteria for a Measure of Scientific Output. Frontiers in Computational Neuroscience, 2011, 5, 48.	2.1	61
27	Quantitative profiling of peptides from RNAs classified as noncoding. Nature Communications, 2014, 5, 5429.	12.8	55
28	Measuring sparseness in the brain: Comment on Bowers (2009).. Psychological Review, 2010, 117, 291-297.	3.8	54
29	Neurons detect cognitive boundaries to structure episodic memories in humans. Nature Neuroscience, 2022, 25, 358-368.	14.8	51
30	Stimulus Encoding and Feature Extraction by Multiple Sensory Neurons. Journal of Neuroscience, 2002, 22, 2374-2382.	3.6	50
31	Consciousness and Neurosurgery. Neurosurgery, 2004, 55, 273-282.	1.1	50
32	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
33	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
34	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
35	Corticocortical feedback increases the spatial extent of normalization. Frontiers in Systems Neuroscience, 2014, 8, 105.	2.5	42
36	Robust Selectivity to Two-Object Images in Human Visual Cortex. Current Biology, 2010, 20, 872-879.	3.9	37

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37	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
38	Cascade of neural processing orchestrates cognitive control in human frontal cortex. ELife, 2016, 5, .	6.0	33
39	Neural coding: computational and biophysical perspectives. Physics of Life Reviews, 2004, 1, 71-102.	2.8	30
40	Bottom-Up and Top-Down Input Augment the Variability of Cortical Neurons. Neuron, 2016, 91, 540-547.	8.1	26
41	Single unit approaches to human vision and memory. Current Opinion in Neurobiology, 2007, 17, 471-475.	4.2	25
42	Conservation of transcription factor binding events predicts gene expression across species. Nucleic Acids Research, 2011, 39, 7092-7102.	14.5	25
43	Finding any Waldo with zero-shot invariant and efficient visual search. Nature Communications, 2018, 9, 3730.	12.8	25
44	Minimal memory for details in real life events. Scientific Reports, 2018, 8, 16701.	3.3	22
45	Putting Visual Object Recognition in Context. , 2020, 2020, 12982-12991.		21
46	On the Minimization of Fluctuations in the Response Times ofÂAutoregulatory Gene Networks. Biophysical Journal, 2011, 101, 1297-1306.	0.5	19
47	Neural Dynamics Underlying Target Detection in the Human Brain. Journal of Neuroscience, 2014, 34, 3042-3055.	3.6	19
48	How cortical neurons help us see: visual recognition in the human brain. Journal of Clinical Investigation, 2010, 120, 3054-3063.	8.2	17
49	What is changing when: Decoding visual information in movies from human intracranial recordings. NeuroImage, 2018, 180, 147-159.	4.2	16
50	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
51	Depression-Biased Reverse Plasticity Rule Is Required for Stable Learning at Top-Down Connections. PLoS Computational Biology, 2012, 8, e1002393.	3.2	12
52	Incorporating intrinsic suppression in deep neural networks captures dynamics of adaptation in neurophysiology and perception. Science Advances, 2020, 6, .	10.3	12
53	Biological object recognition. Scholarpedia Journal, 2008, 3, 2667.	0.3	12
54	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

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55	Recognition of Occluded Objects. Cognitive Science and Technology, 2017, , 41-58.	0.4	11
56	Predicting episodic memory formation for movie events. Scientific Reports, 2016, 6, 30175.	3.3	10
57	XDream: Finding preferred stimuli for visual neurons using generative networks and gradient-free optimization. PLoS Computational Biology, 2020, 16, e1007973.	3.2	10
58	Learning scene gist with convolutional neural networks to improve object recognition. , 2018, , .		8
59	Postscript: About grandmother cells and Jennifer Aniston neurons.. Psychological Review, 2010, 117, 297-299.	3.8	7
60	Short temporal asynchrony disrupts visual object recognition. Journal of Vision, 2014, 14, 7-7.	0.3	7
61	Decrease in gamma-band activity tracks sequence learning. Frontiers in Systems Neuroscience, 2014, 8, 222.	2.5	7
62	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
63	Mesoscopic physiological interactions in the human brain reveal small-world properties. Cell Reports, 2021, 36, 109585.	6.4	7
64	Theory on the Coupled Stochastic Dynamics of Transcription and Splice-Site Recognition. PLoS Computational Biology, 2012, 8, e1002747.	3.2	6
65	Mind the quantum?. Trends in Cognitive Sciences, 2013, 17, 109-110.	7.8	6
66	Can Deep Learning Recognize Subtle Human Activities?. , 2020, , .		6
67	Face Recognition: Vision and Emotions beyond the Bubble. Current Biology, 2011, 21, R888-R890.	3.9	4
68	Sensitivity to timing and order in human visual cortex. Journal of Neurophysiology, 2015, 113, 1656-1669.	1.8	4
69	A null model for cortical representations with grandmothers galore. Language, Cognition and Neuroscience, 2017, 32, 274-285.	1.2	4
70	Face neurons encode nonsemantic features. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2118705119.	7.1	4
71	Neural Interactions Underlying Visuomotor Associations in the Human Brain. Cerebral Cortex, 2019, 29, 4551-4567.	2.9	3
72	Beyond the Cane: Describing Urban Scenes to Blind People for Mobility Tasks. ACM Transactions on Accessible Computing, 2022, 15, 1-29.	2.4	3

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73	When Pigs Fly: Contextual Reasoning in Synthetic and Natural Scenes. , 2021, , .		3
74	Brain Science: From the Very Small to the Very Large. Current Biology, 2007, 17, R768-R770.	3.9	1
75	Toward Unmasking the Dynamics of Visual Perception. Neuron, 2009, 64, 446-447.	8.1	1
76	Neuroscience: What We Cannot Model, We Do Not Understand. Current Biology, 2011, 21, R123-R125.	3.9	1
77	It's a small dimensional world after all. Physics of Life Reviews, 2019, 29, 96-97.	2.8	1
78	Beauty is in the eye of the machine. Nature Human Behaviour, 2021, 5, 675-676.	12.0	1
79	Zero-shot neural decoding from rhesus macaque inferior temporal cortex using deep convolutional neural networks. Journal of Vision, 2019, 19, 209a.	0.3	1
80	Localized task-invariant emotional valence encoding revealed by intracranial recordings. Social Cognitive and Affective Neuroscience, 2021, , .	3.0	1
81	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
82	Decoding ensemble activity from neurophysiological recordings in the temporal cortex. , 2011, 2011, 5904-7.		0
83	A machine learning approach to predict episodic memory formation. , 2016, , .		0
84	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
85	Minimal videos: Trade-off between spatial and temporal information in human and machine vision. Cognition, 2020, 201, 104263.	2.2	0
86	From the Highest Echelons of Visual Processing to Cognition. , 2021, , 112-132.		0
87	Visual integration in the human brain. Journal of Vision, 2011, 11, 887-887.	0.3	0
88	Probing human intracranial visual responses with commercial movies. Journal of Vision, 2016, 16, 502.	0.3	0
89	Neuronal correlates of rapid learning in the human medial temporal lobe. Journal of Vision, 2017, 17, 483.	0.3	0
90	Task dependent modulation before, during and after visually evoked responses in human intracranial recordings. Journal of Vision, 2017, 17, 983.	0.3	0

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91	Two targets, held in memory, can guide search; four targets cannot.. Journal of Vision, 2018, 18, 288.	0.3	0
92	Rapid learning of meaningful image interpretation. Journal of Vision, 2018, 18, 1362.	0.3	0
93	Computational strategies used during hybrid visual search. Journal of Vision, 2019, 19, 132.	0.3	0
94	Adaptation in models of visual object recognition. Journal of Vision, 2019, 19, 210a.	0.3	0
95	Can Deep Learning Recognize Subtle Human Activities?. IEEE Computer Society Conference on Computer Vision and Pattern Recognition Workshops, 2020, 2020, .	0.0	0
96	Title is missing!. , 2020, 16, e1007973.		0
97	Title is missing!. , 2020, 16, e1007973.		0
98	Title is missing!. , 2020, 16, e1007973.		0
99	Title is missing!. , 2020, 16, e1007973.		0
100	Title is missing!. , 2020, 16, e1007973.		0
101	Title is missing!. , 2020, 16, e1007973.		0