

Nikolaus Kriegeskorte

List of Publications by Year in descending order

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Version: 2024-02-01

110
papers

21,411
citations

38660

50
h-index

29081

104
g-index

142
all docs

142
docs citations

142
times ranked

14418
citing authors

#	ARTICLE	IF	CITATIONS
1	Circular analysis in systems neuroscience: the dangers of double dipping. <i>Nature Neuroscience</i> , 2009, 12, 535-540.	7.1	2,379
2	Representational similarity analysis “connecting the branches of systems neuroscience. <i>Frontiers in Systems Neuroscience</i> , 2008, 2, 4.	1.2	2,012
3	Information-based functional brain mapping. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 3863-3868.	3.3	1,918
4	Matching Categorical Object Representations in Inferior Temporal Cortex of Man and Monkey. <i>Neuron</i> , 2008, 60, 1126-1141.	3.8	1,215
5	Deep Supervised, but Not Unsupervised, Models May Explain IT Cortical Representation. <i>PLoS Computational Biology</i> , 2014, 10, e1003915.	1.5	908
6	Deep Neural Networks: A New Framework for Modeling Biological Vision and Brain Information Processing. <i>Annual Review of Vision Science</i> , 2015, 1, 417-446.	2.3	741
7	Representational geometry: integrating cognition, computation, and the brain. <i>Trends in Cognitive Sciences</i> , 2013, 17, 401-412.	4.0	730
8	A Toolbox for Representational Similarity Analysis. <i>PLoS Computational Biology</i> , 2014, 10, e1003553.	1.5	715
9	A deep learning framework for neuroscience. <i>Nature Neuroscience</i> , 2019, 22, 1761-1770.	7.1	563
10	Best practices in data analysis and sharing in neuroimaging using MRI. <i>Nature Neuroscience</i> , 2017, 20, 299-303.	7.1	482
11	Individual faces elicit distinct response patterns in human anterior temporal cortex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 20600-20605.	3.3	464
12	Comparison of multivariate classifiers and response normalizations for pattern-information fMRI. <i>NeuroImage</i> , 2010, 53, 103-118.	2.1	419
13	Reliability of dissimilarity measures for multi-voxel pattern analysis. <i>NeuroImage</i> , 2016, 137, 188-200.	2.1	413
14	Revealing representational content with pattern-information fMRI—an introductory guide. <i>Social Cognitive and Affective Neuroscience</i> , 2009, 4, 101-109.	1.5	374
15	Neural correlates of trust. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 20084-20089.	3.3	313
16	Cortical capacity constraints for visual working memory: dissociation of fMRI load effects in a fronto-parietal network. <i>NeuroImage</i> , 2003, 20, 1518-1530.	2.1	292
17	Neural network models and deep learning. <i>Current Biology</i> , 2019, 29, R231-R236.	1.8	276
18	Population coding of affect across stimuli, modalities and individuals. <i>Nature Neuroscience</i> , 2014, 17, 1114-1122.	7.1	272

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19	Cognitive computational neuroscience. <i>Nature Neuroscience</i> , 2018, 21, 1148-1160.	7.1	266
20	Recurrence is required to capture the representational dynamics of the human visual system. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 21854-21863.	3.3	266
21	Representational dynamics of object vision: The first 1000 ms. <i>Journal of Vision</i> , 2013, 13, 1-1.	0.1	261
22	Analyzing for information, not activation, to exploit high-resolution fMRI. <i>NeuroImage</i> , 2007, 38, 649-662.	2.1	244
23	Representational models: A common framework for understanding encoding, pattern-component, and representational-similarity analysis. <i>PLoS Computational Biology</i> , 2017, 13, e1005508.	1.5	231
24	Retrieval induces adaptive forgetting of competing memories via cortical pattern suppression. <i>Nature Neuroscience</i> , 2015, 18, 582-589.	7.1	227
25	An Efficient Algorithm for Topologically Correct Segmentation of the Cortical Sheet in Anatomical MR Volumes. <i>NeuroImage</i> , 2001, 14, 329-346.	2.1	218
26	Primary Visual Cortex Activity along the Apparent-Motion Trace Reflects Illusory Perception. <i>PLoS Biology</i> , 2005, 3, e265.	2.6	196
27	Episodic Reinstatement in the Medial Temporal Lobe. <i>Journal of Neuroscience</i> , 2012, 32, 18150-18156.	1.7	191
28	Everything You Never Wanted to Know about Circular Analysis, but Were Afraid to Ask. <i>Journal of Cerebral Blood Flow and Metabolism</i> , 2010, 30, 1551-1557.	2.4	190
29	Awake reactivation predicts memory in humans. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 21159-21164.	3.3	181
30	Pattern-information analysis: From stimulus decoding to computational-model testing. <i>NeuroImage</i> , 2011, 56, 411-421.	2.1	179
31	How does an fMRI voxel sample the neuronal activity pattern: Compact-kernel or complex spatiotemporal filter?. <i>NeuroImage</i> , 2010, 49, 1965-1976.	2.1	168
32	High-Level Visual Object Representations Are Constrained by Position. <i>Cerebral Cortex</i> , 2010, 20, 2916-2925.	1.6	155
33	Inverse MDS: Inferring Dissimilarity Structure from Multiple Item Arrangements. <i>Frontiers in Psychology</i> , 2012, 3, 245.	1.1	151
34	Recurrent Convolutional Neural Networks: A Better Model of Biological Object Recognition. <i>Frontiers in Psychology</i> , 2017, 8, 1551.	1.1	144
35	Unique semantic space in the brain of each beholder predicts perceived similarity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 14565-14570.	3.3	139
36	Human Object-Similarity Judgments Reflect and Transcend the Primate-IT Object Representation. <i>Frontiers in Psychology</i> , 2013, 4, 128.	1.1	120

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37	Interpreting encoding and decoding models. <i>Current Opinion in Neurobiology</i> , 2019, 55, 167-179.	2.0	117
38	A Head View-Invariant Representation of Gaze Direction in Anterior Superior Temporal Sulcus. <i>Current Biology</i> , 2011, 21, 1817-1821.	1.8	103
39	Apparent Motion: Event-Related Functional Magnetic Resonance Imaging of Perceptual Switches and States. <i>Journal of Neuroscience</i> , 2002, 22, RC219-RC219.	1.7	102
40	Deep Convolutional Neural Networks Outperform Feature-Based But Not Categorical Models in Explaining Object Similarity Judgments. <i>Frontiers in Psychology</i> , 2017, 8, 1726.	1.1	93
41	Perceptual similarity of visual patterns predicts dynamic neural activation patterns measured with MEG. <i>NeuroImage</i> , 2016, 132, 59-70.	2.1	85
42	Peeling the Onion of Brain Representations. <i>Annual Review of Neuroscience</i> , 2019, 42, 407-432.	5.0	84
43	Abstract Encoding of Auditory Objects in Cortical Activity Patterns. <i>Cerebral Cortex</i> , 2013, 23, 2025-2037.	1.6	81
44	The Emergence of Semantic Meaning in the Ventral Temporal Pathway. <i>Journal of Cognitive Neuroscience</i> , 2014, 26, 120-131.	1.1	81
45	Neural tuning and representational geometry. <i>Nature Reviews Neuroscience</i> , 2021, 22, 703-718.	4.9	80
46	Visual features as stepping stones toward semantics: Explaining object similarity in IT and perception with non-negative least squares. <i>Neuropsychologia</i> , 2016, 83, 201-226.	0.7	73
47	Relating population-code representations between man, monkey, and computational models. <i>Frontiers in Neuroscience</i> , 2009, 3, 363-373.	1.4	72
48	Reaction Time for Object Categorization Is Predicted by Representational Distance. <i>Journal of Cognitive Neuroscience</i> , 2014, 26, 132-142.	1.1	72
49	Choosing the Rules: Distinct and Overlapping Frontoparietal Representations of Task Rules for Perceptual Decisions. <i>Journal of Neuroscience</i> , 2013, 33, 11852-11862.	1.7	71
50	Faciotopy—A face-feature map with face-like topology in the human occipital face area. <i>Cortex</i> , 2015, 72, 156-167.	1.1	68
51	An ecologically motivated image dataset for deep learning yields better models of human vision. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	3.3	67
52	Face-Identity Change Activation Outside the Face System: “Release from Adaptation” May Not Always Indicate Neuronal Selectivity. <i>Cerebral Cortex</i> , 2010, 20, 2027-2042.	1.6	66
53	Fixed versus mixed RSA: Explaining visual representations by fixed and mixed feature sets from shallow and deep computational models. <i>Journal of Mathematical Psychology</i> , 2017, 76, 184-197.	1.0	66
54	fMRI orientation decoding in V1 does not require global maps or globally coherent orientation stimuli. <i>Frontiers in Psychology</i> , 2013, 4, 493.	1.1	65

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55	Recurrent neural networks can explain flexible trading of speed and accuracy in biological vision. PLoS Computational Biology, 2020, 16, e1008215.	1.5	65
56	Representational Similarity Mapping of Distributional Semantics in Left Inferior Frontal, Middle Temporal, and Motor Cortex. Cerebral Cortex, 2017, 27, 294-309.	1.6	62
57	Individual differences among deep neural network models. Nature Communications, 2020, 11, 5725.	5.8	62
58	Categorical, Yet Graded - Single-Image Activation Profiles of Human Category-Selective Cortical Regions. Journal of Neuroscience, 2012, 32, 8649-8662.	1.7	59
59	Perception and Processing of Faces in the Human Brain Is Tuned to Typical Feature Locations. Journal of Neuroscience, 2016, 36, 9289-9302.	1.7	58
60	Visual representations are dominated by intrinsic fluctuations correlated between areas. NeuroImage, 2015, 114, 275-286.	2.1	57
61	Distinct representations of basic taste qualities in human gustatory cortex. Nature Communications, 2019, 10, 1048.	5.8	56
62	Auditory motion direction encoding in auditory cortex and high-level visual cortex. Human Brain Mapping, 2012, 33, 969-978.	1.9	54
63	Human Cortical Object Recognition from a Visual Motion Flowfield. Journal of Neuroscience, 2003, 23, 1451-1463.	1.7	53
64	Open Evaluation: A Vision for Entirely Transparent Post-Publication Peer Review and Rating for Science. Frontiers in Computational Neuroscience, 2012, 6, 79.	1.2	53
65	Going in circles is the way forward: the role of recurrence in visual inference. Current Opinion in Neurobiology, 2020, 65, 176-193.	2.0	53
66	Controversial stimuli: Pitting neural networks against each other as models of human cognition. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 29330-29337.	3.3	53
67	Combining the tools: Activation- and information-based fMRI analysis. NeuroImage, 2007, 38, 666-668.	2.1	51
68	Rapid Invariant Encoding of Scene Layout in Human OPA. Neuron, 2019, 103, 161-171.e3.	3.8	50
69	The spatiotemporal neural dynamics underlying perceived similarity for real-world objects. NeuroImage, 2019, 194, 12-24.	2.1	48
70	Inferring brain-computational mechanisms with models of activity measurements. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20160278.	1.8	45
71	FFA and OFA Encode Distinct Types of Face Identity Information. Journal of Neuroscience, 2021, 41, 1952-1969.	1.7	43
72	Pattern-information fMRI: New questions which it opens up and challenges which face it. International Journal of Imaging Systems and Technology, 2010, 20, 31-41.	2.7	40

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73	Promises and challenges of human computational ethology. <i>Neuron</i> , 2021, 109, 2224-2238.	3.8	37
74	Adjudicating between face-coding models with individual-face fMRI responses. <i>PLoS Computational Biology</i> , 2017, 13, e1005604.	1.5	36
75	An emerging consensus for open evaluation: 18 visions for the future of scientific publishing. <i>Frontiers in Computational Neuroscience</i> , 2012, 6, 94.	1.2	32
76	Direction-Sensitive Codes for Observed Head Turns in Human Superior Temporal Sulcus. <i>Cerebral Cortex</i> , 2012, 22, 735-744.	1.6	31
77	Spatiotemporal Searchlight Representational Similarity Analysis in EMEG Source Space. , 2012, , .		31
78	Seeing patterns through the hemodynamic veil – The future of pattern-information fMRI. <i>NeuroImage</i> , 2012, 62, 1249-1256.	2.1	31
79	Intrinsic Structure of Visual Exemplar and Category Representations in Macaque Brain. <i>Journal of Neuroscience</i> , 2013, 33, 11346-11360.	1.7	31
80	GLMdenoise improves multivariate pattern analysis of fMRI data. <i>NeuroImage</i> , 2018, 183, 606-616.	2.1	31
81	Representational Distance Learning for Deep Neural Networks. <i>Frontiers in Computational Neuroscience</i> , 2016, 10, 131.	1.2	30
82	Faces and voices in the brain: A modality-general person-identity representation in superior temporal sulcus. <i>NeuroImage</i> , 2019, 201, 116004.	2.1	30
83	Inferring exemplar discriminability in brain representations. <i>PLoS ONE</i> , 2020, 15, e0232551.	1.1	27
84	Distinct fronto-temporal substrates of distributional and taxonomic similarity among words: evidence from RSA of BOLD signals. <i>NeuroImage</i> , 2021, 224, 117408.	2.1	27
85	Utilizing temporal information in fMRI decoding: Classifier using kernel regression methods. <i>NeuroImage</i> , 2011, 58, 560-571.	2.1	26
86	Capturing the objects of vision with neural networks. <i>Nature Human Behaviour</i> , 2021, 5, 1127-1144.	6.2	25
87	Cognitive Computational Neuroscience: A New Conference for an Emerging Discipline. <i>Trends in Cognitive Sciences</i> , 2018, 22, 365-367.	4.0	22
88	The brain of the beholder: honouring individual representational idiosyncrasies. <i>Language, Cognition and Neuroscience</i> , 2015, 30, 367-379.	0.7	21
89	Analysing linear multivariate pattern transformations in neuroimaging data. <i>PLoS ONE</i> , 2019, 14, e0223660.	1.1	20
90	Comparing representational geometries using whitened unbiased-distance-matrix similarity. <i>Neurons, Behavior, Data Analysis, and Theory</i> , 2021, 5, .	1.8	20

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91	Artifactual time-course correlations in echo-planar fMRI with implications for studies of brain function. <i>International Journal of Imaging Systems and Technology</i> , 2008, 18, 345-349.	2.7	19
92	The representational dynamics of perceived voice emotions evolve from categories to dimensions. <i>Nature Human Behaviour</i> , 2021, 5, 1203-1213.	6.2	19
93	Prospective motion correction improves the sensitivity of fMRI pattern decoding. <i>Human Brain Mapping</i> , 2018, 39, 4018-4031.	1.9	15
94	Face dissimilarity judgments are predicted by representational distance in morphable and image-computable models. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	14
95	Similarity, not complexity, determines visual working memory performance.. <i>Journal of Experimental Psychology: Learning Memory and Cognition</i> , 2015, 41, 1884-1892.	0.7	13
96	Local opposite orientation preferences in V1: fMRI sensitivity to fine-grained pattern information. <i>Scientific Reports</i> , 2017, 7, 7128.	1.6	10
97	Deep convolutional neural networks, features, and categories perform similarly at explaining primate high-level visual representations. , 2018, , .		10
98	Rapid event-related, BOLD fMRI, non-human primates (NHP): choose two out of three. <i>Scientific Reports</i> , 2020, 10, 7485.	1.6	9
99	Grid Cells for Conceptual Spaces?. <i>Neuron</i> , 2016, 92, 280-284.	3.8	7
100	Building machines that adapt and compute like brains. <i>Behavioral and Brain Sciences</i> , 2017, 40, e269.	0.4	7
101	The brain produces mind by modeling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 29299-29301.	3.3	7
102	Semantic Data Set Construction from Human Clustering and Spatial Arrangement. <i>Computational Linguistics</i> , 2021, 47, 69-116.	2.5	6
103	What's there, distinctly, when and where?. <i>Nature Neuroscience</i> , 2014, 17, 332-333.	7.1	5
104	Distance-Based Partial Least Squares Analysis. <i>Springer Proceedings in Mathematics and Statistics</i> , 2013, , 131-145.	0.1	2
105	The neuroscientific exploitation of high-resolution functional magnetic resonance imaging. , 2006, 2006, 21-4.		1
106	Interpreting brain images: reflections on an adolescent field. <i>Trends in Cognitive Sciences</i> , 2010, 14, 475-476.	4.0	1
107	Intersubject information mapping: revealing canonical representations of complex natural stimuli. <i>ScienceOpen Research</i> , 2015, .	0.6	1
108	The Arrow of Time: How Does the Brain Represent Natural Temporal Structure?. <i>Journal of Neuroscience</i> , 2008, 28, 7933-7935.	1.7	0

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109	Categorical selectivity in the visual pathway revealed by fMRI in awake macaques. <i>Journal of Vision</i> , 2017, 17, 231.	0.1	0
110	A unifying framework for understanding neural tuning and representational geometry. <i>Journal of Vision</i> , 2020, 20, 235.	0.1	0