Stefano Panzeri

List of Publications by Year in descending order

228 papers	15,142 citations	22153 59 h-index	25787 108 g-index
272 all docs	272 docs citations	272 times ranked	11388 citing authors

#	Article	IF	Citations
1	Intersecting kinematic encoding and readout of intention in autism. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	9
2	Unique spatiotemporal fMRI dynamics in the awake mouse brain. Current Biology, 2022, 32, 631-644.e6.	3.9	63
3	Increased fMRI connectivity upon chemogenetic inhibition of the mouse prefrontal cortex. Nature Communications, 2022, 13, 1056.	12.8	45
4	Complementary encoding of spatial information in hippocampal astrocytes. PLoS Biology, 2022, 20, e3001530.	5.6	27
5	Distinct ensembles in the noradrenergic locus coeruleus are associated with diverse cortical states. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2116507119.	7.1	23
6	Sequential transmission of task-relevant information in cortical neuronal networks. Cell Reports, 2022, 39, 110878.	6.4	23
7	The structures and functions of correlations in neural population codes. Nature Reviews Neuroscience, 2022, 23, 551-567.	10.2	63
8	Local Field Potential, Phase Coding. , 2022, , 1846-1852.		0
9	Estimating Information-Theoretic Quantities. , 2022, , 1347-1358.		0
10	Local Field Potential, Relationship to BOLD Signal. , 2022, , 1852-1860.		0
11	Applications of Information Theory to Analysis of Neural Data. , 2022, , 222-226.		0
12	Summary of Information-Theoretic Quantities. , 2022, , 3367-3372.		0
13	Inferring Neural Circuit Interactions and Neuromodulation from Local Field Potential and Electroencephalogram Measures. Lecture Notes in Computer Science, 2021, , 3-12.	1.3	1
14	Identifying the signature of prospective motor control in children with autism. Scientific Reports, 2021, 11, 3165.	3.3	18
15	Directed information exchange between cortical layers in macaque V1 and V4 and its modulation by selective attention. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	51
16	Stimulus-dependent relationships between behavioral choice and sensory neural responses. ELife, 2021, 10, .	6.0	7
17	Computation of the electroencephalogram (EEG) from network models of point neurons. PLoS Computational Biology, 2021, 17, e1008893.	3.2	20
18	Correlations enhance the behavioral readout of neural population activity in association cortex. Nature Neuroscience, 2021, 24, 975-986.	14.8	55

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19	Why 4D ultrasound has not (yet) revolutionized fetal movement research. Ultrasound in Obstetrics and Gynecology, 2021, , .	1.7	0
20	Costs and benefits of communicating vigor. Behavioral and Brain Sciences, 2021, 44, e124.	0.7	3
21	Neuroscience: Turbulent times for brain information processing. Current Biology, 2021, 31, R1400-R1402.	3.9	0
22	Cortical responses to touch reflect subcortical integration of LTMR signals. Nature, 2021, 600, 680-685.	27.8	26
23	Methods for inferring neural circuit interactions and neuromodulation from local field potential and electroencephalogram measures. Brain Informatics, 2021, 8, 27.	3.0	3
24	Transient Disruption of the Inferior Parietal Lobule Impairs the Ability to Attribute Intention to Action. Current Biology, 2020, 30, 4594-4605.e7.	3.9	27
25	Manipulating synthetic optogenetic odors reveals the coding logic of olfactory perception. Science, 2020, 368, .	12.6	80
26	Temporal Sharpening of Sensory Responses by Layer V in the Mouse Primary Somatosensory Cortex. Current Biology, 2020, 30, 1589-1599.e10.	3.9	25
27	Structure and flexibility in cortical representations of odour space. Nature, 2020, 583, 253-258.	27.8	108
28	High-Accuracy Detection of Neuronal Ensemble Activity in Two-Photon Functional Microscopy Using Smart Line Scanning. Cell Reports, 2020, 30, 2567-2580.e6.	6.4	11
29	Intrinsic excitation-inhibition imbalance affects medial prefrontal cortex differently in autistic men versus women. ELife, 2020, 9, .	6.0	94
30	Extended field-of-view ultrathin microendoscopes for high-resolution two-photon imaging with minimal invasiveness. ELife, 2020, 9, .	6.0	30
31	Stationary-State Statistics of a Binary Neural Network Model with Quenched Disorder. Entropy, 2019, 21, 630.	2.2	2
32	Infraslow State Fluctuations Govern Spontaneous fMRI Network Dynamics. Current Biology, 2019, 29, 2295-2306.e5.	3.9	107
33	Categorical encoding of decision variables in orbitofrontal cortex. PLoS Computational Biology, 2019, 15, e1006667.	3.2	15
34	Using intersection information to map stimulus information transfer within neural networks. BioSystems, 2019, 185, 104028.	2.0	6
35	Thalamic Drive of Cortical Parvalbumin-Positive Interneurons during Down States in Anesthetized Mice. Current Biology, 2019, 29, 1481-1490.e6.	3.9	45
36	The Spectrum of Asynchronous Dynamics in Spiking Networks as a Model for the Diversity of Non-rhythmic Waking States in the Neocortex. Cell Reports, 2019, 27, 1119-1132.e7.	6.4	17

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37	Sensorimotor communication at the intersection between kinematic coding and readout. Physics of Life Reviews, 2019, 28, 39-42.	2.8	6
38	Information Theory in Neuroscience. Entropy, 2019, 21, 62.	2.2	15
39	Cholinergic Modulation Promotes Attentional Modulation in Primary Visual Cortex- A Modeling Study. Scientific Reports, 2019, 9, 20186.	3.3	13
40	Optimized brute-force algorithms for the bifurcation analysis of a binary neural network model. Physical Review E, 2019, 99, 012316.	2.1	1
41	Mathematical studies of the dynamics of finite-size binary neural networks: A review of recent progress. Mathematical Biosciences and Engineering, 2019, 16, 8025-8059.	1.9	3
42	State-dependent representation of stimulus-evoked activity in high-density recordings of neural cultures. Scientific Reports, 2018, 8, 5578.	3.3	15
43	Dopamine Is Signaled by Mid-frequency Oscillations and Boosts Output Layers Visual Information in Visual Cortex. Current Biology, 2018, 28, 224-235.e5.	3.9	20
44	Pattern Storage, Bifurcations, and Groupwise Correlation Structure of an Exactly Solvable Asymmetric Neural Network Model. Neural Computation, 2018, 30, 1258-1295.	2.2	9
45	The threshold for conscious report: Signal loss and response bias in visual and frontal cortex. Science, 2018, 360, 537-542.	12.6	264
46	Homozygous Loss of Autism-Risk Gene CNTNAP2 Results in Reduced Local and Long-Range Prefrontal Functional Connectivity. Cerebral Cortex, 2018, 28, 1141-1153.	2.9	82
47	Transitions between asynchronous and synchronous states: a theory of correlations in small neural circuits. Journal of Computational Neuroscience, 2018, 44, 25-43.	1.0	6
48	Perceptual learning of fine contrast discrimination changes neuronal tuning and population coding in macaque V4. Nature Communications, 2018, 9, 4238.	12.8	18
49	Information estimation using nonparametric copulas. Physical Review E, 2018, 98, .	2.1	24
50	Characterization of whole-body muscle activity during reaching movements using space-by-time modularity and functional similarity analysis. , 2018, , .		1
51	Deciphering the functional role of spatial and temporal muscle synergies in whole-body movements. Scientific Reports, 2018, 8, 8391.	3.3	34
52	Classification-Based Prediction of Effective Connectivity Between Timeseries With a Realistic Cortical Network Model. Frontiers in Computational Neuroscience, 2018, 12, 38.	2.1	0
53	The Identity of Information: How Deterministic Dependencies Constrain Information Synergy and Redundancy. Entropy, 2018, 20, 169.	2.2	4
54	Learning to focus on number. Cognition, 2018, 181, 35-45.	2.2	40

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55	The Locus Coeruleus Is a Complex and Differentiated Neuromodulatory System. Neuron, 2018, 99, 1055-1068.e6.	8.1	133
56	Local Field Potential, Phase Coding. , 2018, , 1-7.		0
57	Cracking the Neural Code for Sensory Perception by Combining Statistics, Intervention, and Behavior. Neuron, 2017, 93, 491-507.	8.1	188
58	Biofeedback Signals for Robotic Rehabilitation: Assessment of Wrist Muscle Activation Patterns in Healthy Humans. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 883-892.	4.9	19
59	Distinct timescales of population coding across cortex. Nature, 2017, 548, 92-96.	27.8	298
60	Inference of neuronal functional circuitry with spike-triggered non-negative matrix factorization. Nature Communications, 2017, 8, 149.	12.8	74
61	Cholinergic Control of Information Coding. Trends in Neurosciences, 2017, 40, 522-524.	8.6	10
62	Bifurcation Analysis of a Sparse Neural Network with Cubic Topology. Springer INdAM Series, 2017, , 87-98.	0.5	0
63	Synergy and Redundancy in Dual Decompositions of Mutual Information Gain and Information Loss. Entropy, 2017, 19, 71.	2.2	26
64	Invariant Components of Synergy, Redundancy, and Unique Information among Three Variables. Entropy, 2017, 19, 451.	2.2	27
65	State-Dependent Decoding Algorithms Improve the Performance of a Bidirectional BMI in Anesthetized Rats. Frontiers in Neuroscience, 2017, 11, 269.	2.8	1
66	Natural Translating Locomotion Modulates Cortical Activity at Action Observation. Frontiers in Systems Neuroscience, 2017, 11, 83.	2.5	4
67	Emergence of transformation-tolerant representations of visual objects in rat lateral extrastriate cortex. ELife, 2017, 6, .	6.0	49
68	26th Annual Computational Neuroscience Meeting (CNS*2017): Part 2. BMC Neuroscience, 2017, 18, .	1.9	7
69	Contributions of local speech encoding and functional connectivity to audio-visual speech perception. ELife, 2017, 6, .	6.0	71
70	An inhibitory gate for state transition in cortex. ELife, 2017, 6, .	6.0	83
71	Space-by-Time Tensor Decomposition for Single-Trial Analysis of Neural Signals. Springer INdAM Series, 2017, , 223-237.	0.5	1
72	Space-by-time manifold representation of dynamic facial expressions for emotion categorization. Journal of Vision, 2016, 16, 14.	0.3	24

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73	Implications of the Dependence of Neuronal Activity on Neural Network States for the Design of Brain-Machine Interfaces. Frontiers in Neuroscience, 2016, 10, 165.	2.8	12
74	Using Matrix and Tensor Factorizations for the Single-Trial Analysis of Population Spike Trains. PLoS Computational Biology, 2016, 12, e1005189.	3.2	48
75	Tracing the Flow of Perceptual Features in an Algorithmic Brain Network. Scientific Reports, 2016, 5, 17681.	3.3	47
76	Space-by-time decomposition for single-trial decoding of M/EEG activity. NeuroImage, 2016, 133, 504-515.	4.2	18
77	Attention Induced Gain Stabilization in Broad and Narrow-Spiking Cells in the Frontal Eye-Field of Macaque Monkeys. Journal of Neuroscience, 2016, 36, 7601-7612.	3.6	39
78	The Deceptively Simple N170 Reflects Network Information Processing Mechanisms Involving Visual Feature Coding and Transfer Across Hemispheres. Cerebral Cortex, 2016, 26, 4123-4135.	2.9	45
79	Unaltered Network Activity and Interneuronal Firing During Spontaneous Cortical Dynamics In Vivo in a Mouse Model of Severe Myoclonic Epilepsy of Infancy. Cerebral Cortex, 2016, 26, 1778-1794.	2.9	62
80	The Complexity of Dynamics in Small Neural Circuits. PLoS Computational Biology, 2016, 12, e1004992.	3.2	12
81	Task-discriminative space-by-time factorization of muscle activity. Frontiers in Human Neuroscience, 2015, 9, 399.	2.0	23
82	Computing the Local Field Potential (LFP) from Integrate-and-Fire Network Models. PLoS Computational Biology, 2015, 11, e1004584.	3.2	391
83	Rhythmic Auditory Cortex Activity at Multiple Timescales Shapes Stimulusâ€“Response Gain and Background Firing. Journal of Neuroscience, 2015, 35, 7750-7762.	3.6	70
84	Modeling the effect of locus coeruleus firing on cortical state dynamics and single-trial sensory processing. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12834-12839.	7.1	73
85	Spike time based unsupervised learning of receptive fields for event-driven vision. , 2015, , .		8
86	A bidirectional brain-machine interface connecting alert rodents to a dynamical system. , 2015, 2015, 51-4.		12
87	Neural population coding: combining insights from microscopic and mass signals. Trends in Cognitive Sciences, 2015, 19, 162-172.	7.8	178
88	Complementary Contributions of Spike Timing and Spike Rate to Perceptual Decisions in Rat S1 and S2 Cortex. Current Biology, 2015, 25, 357-363.	3.9	142
89	What Can Neuromorphic Event-Driven Precise Timing Add to Spike-Based Pattern Recognition?. Neural Computation, 2015, 27, 561-593.	2.2	35
90	A Formalism for Evaluating Analytically the Cross-Correlation Structure of a Firing-Rate Network Model. Journal of Mathematical Neuroscience, 2015, 5, 6.	2.4	6

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91	Extracting information in spike time patterns with wavelets and information theory. Journal of Neurophysiology, 2015, 113, 1015-1033.	1.8	24
92	Shifts of Gamma Phase across Primary Visual Cortical Sites Reflect Dynamic Stimulus-Modulated Information Transfer. PLoS Biology, 2015, 13, e1002257.	5.6	95
93	The deceptively simple N170 hides a complex diagnostic coding mechanism involving visual feature transfer across hemispheres.. Journal of Vision, 2015, 15, 749.	0.3	0
94	A Bidirectional Brain-Machine Interface Algorithm That Approximates Arbitrary Force-Fields. PLoS ONE, 2014, 9, e91677.	2.5	14
95	Understanding Neural Population Coding: Information Theoretic Insights from the Auditory System. Advances in Neuroscience (Hindawi), 2014, 2014, 1-14.	3.1	10
96	Comparison of the dynamics of neural interactions between current-based and conductance-based integrate-and-fire recurrent networks. Frontiers in Neural Circuits, 2014, 8, 12.	2.8	60
97	Algorithms of causal inference for the analysis of effective connectivity among brain regions. Frontiers in Neuroinformatics, 2014, 8, 64.	2.5	27
98	Summary of Information Theoretic Quantities. , 2014, , 1-6.		1
99	Applications of Information Theory to Analysis of Neural Data. , 2014, , 1-6.		4
100	Estimating Information-Theoretic Quantities. , 2014, , 1-13.		5
101	Reading spike timing without a clock: intrinsic decoding of spike trains. Philosophical Transactions of the Royal Society B: Biological Sciences, 2014, 369, 20120467.	4.0	44
102	A unifying model of concurrent spatial and temporal modularity in muscle activity. Journal of Neurophysiology, 2014, 111, 675-693.	1.8	80
103	Stimulus Dependence of Local Field Potential Spectra: Experiment versus Theory. Journal of Neuroscience, 2014, 34, 14589-14605.	3.6	48
104	A dynamical systems model of the effect of Locus Coeruleus firing on single trial cortical state dynamics. BMC Neuroscience, 2014, 15, .	1.9	1
105	Hierarchical flow of sensory information in rat somatosensory cortex. BMC Neuroscience, 2014, 15, .	1.9	0
106	Brain Function: Novel Technologies Driving Novel Understanding. , 2014, , 299-334.		6
107	Local Field Potential, Relationship to BOLD Signal. , 2014, , 1-11.		2
108	Decoding spiking activity in V4, but not V1, correlates with behavioural performance in perceptual learning task. BMC Neuroscience, 2013, 14, .	1.9	0

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109	Spike timing in rat somatosensory cortex contributes to behavior. BMC Neuroscience, 2013, 14, .	1.9	0
110	Assessing the role of synchronization and phase coherence in neural communication comparing cortical recordings and integrate-and-fire network models. BMC Neuroscience, 2013, 14, .	1.9	0
111	Modelling and analysis of local field potentials for studying the function of cortical circuits. Nature Reviews Neuroscience, 2013, 14, 770-785.	10.2	693
112	Neural Codes Formed by Small and Temporally Precise Populations in Auditory Cortex. Journal of Neuroscience, 2013, 33, 18277-18287.	3.6	62
113	Speech Rhythms and Multiplexed Oscillatory Sensory Coding in the Human Brain. PLoS Biology, 2013, 11, e1001752.	5.6	502
114	Quantitative evaluation of muscle synergy models: a single-trial task decoding approach. Frontiers in Computational Neuroscience, 2013, 7, 8.	2.1	61
115	Investigating reduction of dimensionality during single-joint elbow movements: a case study on muscle synergies. Frontiers in Computational Neuroscience, 2013, 7, 11.	2.1	39
116	Muscle synergies in neuroscience and robotics: from input-space to task-space perspectives. Frontiers in Computational Neuroscience, 2013, 7, 43.	2.1	112
117	A methodology for assessing the effect of correlations among muscle synergy activations on task-discriminating information. Frontiers in Computational Neuroscience, 2013, 7, 54.	2.1	31
118	Speech Rhythms and Multiplexed Oscillatory Sensory Coding in the Human Brain. PLoS Biology, 2013, 11, e1001752.	5.6	5
119	Analysis of Slow (Theta) Oscillations as a Potential Temporal Reference Frame for Information Coding in Sensory Cortices. PLoS Computational Biology, 2012, 8, e1002717.	3.2	98
120	Shaping the Dynamics of a Bidirectional Neural Interface. PLoS Computational Biology, 2012, 8, e1002578.	3.2	24
121	Noradrenergic Neurons of the Locus Coeruleus Are Phase Locked to Cortical Up-Down States during Sleep. Cerebral Cortex, 2012, 22, 426-435.	2.9	170
122	Neurons with Stereotyped and Rapid Responses Provide a Reference Frame for Relative Temporal Coding in Primate Auditory Cortex. Journal of Neuroscience, 2012, 32, 2998-3008.	3.6	46
123	The Amplitude and Timing of the BOLD Signal Reflects the Relationship between Local Field Potential Power at Different Frequencies. Journal of Neuroscience, 2012, 32, 1395-1407.	3.6	300
124	Optimal band separation of extracellular field potentials. Journal of Neuroscience Methods, 2012, 210, 66-78.	2.5	17
125	A novel test to determine the significance of neural selectivity to single and multiple potentially correlated stimulus features. Journal of Neuroscience Methods, 2012, 210, 49-65.	2.5	44
126	Dynamic brain-machine interface: A novel paradigm for bidirectional interaction between brains and dynamical systems. , 2011, 2011, 4592-5.		8

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127	Investigating static nonlinearities in neurovascular coupling. Magnetic Resonance Imaging, 2011, 29, 1358-1364.	1.8	14
128	Cortical dynamics during naturalistic sensory stimulations: Experiments and models. Journal of Physiology (Paris), 2011, 105, 2-15.	2.1	64
129	Different LFP frequency bands convey complementary information about the BOLD signal. BMC Neuroscience, 2011, 12, .	1.9	2
130	Does the information in the phase of low frequency LFP reflect the low frequency envelope of local spike rates?. BMC Neuroscience, 2011, 12, .	1.9	0
131	Local field potential phase and spike timing convey information about different visual features in primary visual cortex. BMC Neuroscience, 2011, 12, .	1.9	1
132	Carbon nanotube composite coating of neural microelectrodes preferentially improves the multiunit signal-to-noise ratio. Journal of Neural Engineering, 2011, 8, 066013.	3.5	79
133	The Laminar and Temporal Structure of Stimulus Information in the Phase of Field Potentials of Auditory Cortex. Journal of Neuroscience, 2011, 31, 15787-15801.	3.6	82
134	Naturalistic stimulus trains evoke reproducible subicular responses both within and between animals in vivo. Hippocampus, 2010, 20, 252-263.	1.9	0
135	Testing methodologies for the nonlinear analysis of causal relationships in neurovascular coupling. Magnetic Resonance Imaging, 2010, 28, 1113-1119.	1.8	14
136	Sensory information in local field potentials and spikes from visual and auditory cortices: time scales and frequency bands. Journal of Computational Neuroscience, 2010, 29, 533-545.	1.0	75
137	Causal relationships between frequency bands of extracellular signals in visual cortex revealed by an information theoretic analysis. Journal of Computational Neuroscience, 2010, 29, 547-566.	1.0	57
138	Visual Enhancement of the Information Representation in Auditory Cortex. Current Biology, 2010, 20, 19-24.	3.9	168
139	Information-theoretic methods for studying population codes. Neural Networks, 2010, 23, 713-727.	5.9	48
140	Open source tools for the information theoretic analysis of neural data. Frontiers in Neuroscience, 2010, 4, .	2.8	27
141	Millisecond encoding precision of auditory cortex neurons. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 16976-16981.	7.1	116
142	Sensory Input Drives Multiple Intracellular Information Streams in Somatosensory Cortex. Journal of Neuroscience, 2010, 30, 10872-10884.	3.6	15
143	Sensory neural codes using multiplexed temporal scales. Trends in Neurosciences, 2010, 33, 111-120.	8.6	432
144	Understanding the relationships between spike rate and delta/gamma frequency bands of LFPs and EEGs using a local cortical network model. NeuroImage, 2010, 52, 956-972.	4.2	101

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145	New perspectives on the dialogue between brains and machines. Frontiers in Neuroscience, 2010, 4, 44.	2.8	51
146	"Information carried by population spike times in the whisker sensory cortex can be decoded without knowledge of stimulus time ". Frontiers in Synaptic Neuroscience, 2010, 2, 17.	2.5	42
147	Signalling properties of bursts and spikes in model thalamic relay cells. Journal of Vision, 2010, 2, 101-101.	0.3	1
148	Population Coding. , 2010, , 303-319.		2
149	Python for information theoretic analysis of neural data. Frontiers in Neuroinformatics, 2009, 3, 4.	2.5	48
150	Minimum Information about a Neuroscience Investigation (MINI): Electrophysiology. Nature Precedings, 2009, , .	0.1	10
151	A toolbox for the fast information analysis of multiple-site LFP, EEG and spike train recordings. BMC Neuroscience, 2009, 10, 81.	1.9	198
152	Neural coding and contextual influences in the whisker system. Biological Cybernetics, 2009, 100, 427-446.	1.3	36
153	Extracting information from neuronal populations: information theory and decoding approaches. Nature Reviews Neuroscience, 2009, 10, 173-185.	10.2	657
154	The impact of high-order interactions on the rate of synchronous discharge and information transmission in somatosensory cortex. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 3297-3310.	3.4	94
155	Spike-Phase Coding Boosts and Stabilizes Information Carried by Spatial and Temporal Spike Patterns. Neuron, 2009, 61, 597-608.	8.1	427
156	Information content and robustness of various types of codes in integrate and fire networks presented with naturalistic stimuli. BMC Neuroscience, 2009, 10, .	1.9	0
157	On the presence of high-order interactions among somatosensory neurons and their effect on information transmission. Journal of Physics: Conference Series, 2009, 197, 012013.	0.4	10
158	A Global Sensitivity Index for Biophysically Detailed Cardiac Cell Models: A Computational Approach. Lecture Notes in Computer Science, 2009, , 366-375.	1.3	7
159	On the use of information theory for the analysis of the relationship between neural and imaging signals. Magnetic Resonance Imaging, 2008, 26, 1015-1025.	1.8	29
160	Phase-of-Firing Coding of Natural Visual Stimuli in Primary Visual Cortex. Current Biology, 2008, 18, 375-380.	3.9	361
161	Information-theoretic sensitivity analysis: a general method for credit assignment in complex networks. Journal of the Royal Society Interface, 2008, 5, 223-235.	3.4	101
162	Diverse and Temporally Precise Kinetic Feature Selectivity in the VPm Thalamic Nucleus. Neuron, 2008, 60, 890-903.	8.1	87

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163	Low-Frequency Local Field Potentials and Spikes in Primary Visual Cortex Convey Independent Visual Information. Journal of Neuroscience, 2008, 28, 5696-5709.	3.6	381
164	Encoding of Naturalistic Stimuli by Local Field Potential Spectra in Networks of Excitatory and Inhibitory Neurons. PLoS Computational Biology, 2008, 4, e1000239.	3.2	247
165	Topological clustering of synchronous spike trains. , 2008, , .		2
166	Minimum Information about a Neuroscience Investigation (MINI) Electrophysiology. Nature Precedings, 2008, , .	0.1	11
167	Decoding Population Neuronal Responses by Topological Clustering. Lecture Notes in Computer Science, 2008, , 547-556.	1.3	2
168	Tight Data-Robust Bounds to Mutual Information Combining Shuffling and Model Selection Techniques. Neural Computation, 2007, 19, 2913-2957.	2.2	82
169	Role of Precise Spike Timing in Coding of Dynamic Vibrissa Stimuli in Somatosensory Thalamus. Journal of Neurophysiology, 2007, 98, 1871-1882.	1.8	76
170	Spatioâ€temporal prediction and inference by V1 neurons. European Journal of Neuroscience, 2007, 26, 1045-1054.	2.6	32
171	A downward biased estimator of spike timing information. Neurocomputing, 2007, 70, 1777-1781.	5.9	1
172	GABAergic excitation in striatal projection neurons: Simulations and experiments. Neurocomputing, 2007, 70, 1870-1876.	5.9	0
173	Correcting for the Sampling Bias Problem in Spike Train Information Measures. Journal of Neurophysiology, 2007, 98, 1064-1072.	1.8	368
174	Excitatory GABAergic Effects in Striatal Projection Neurons. Journal of Neurophysiology, 2006, 95, 1285-1290.	1.8	67
175	Stimulus specificity of cortico-cortical connections optimizes information transmission. Neurocomputing, 2006, 69, 1203-1205.	5.9	0
176	Optimal Tuning Widths in Population Coding of Periodic Variables. Neural Computation, 2006, 18, 1555-1576.	2.2	21
177	Deciphering the Spike Train of a Sensory Neuron: Counts and Temporal Patterns in the Rat Whisker Pathway. Journal of Neuroscience, 2006, 26, 9216-9226.	3.6	150
178	Data-Robust Tight Lower Bounds to the Information Carried by Spike Times of a Neuronal Population. Neural Computation, 2005, 17, 1962-2005.	2.2	13
179	Whisker Vibration Information Carried by Rat Barrel Cortex Neurons. Journal of Neuroscience, 2004, 24, 6011-6020.	3.6	136
180	Exploring structureâ€"function relationships in neocortical networks by means of neuromodelling techniques. Medical Engineering and Physics, 2004, 26, 699-710.	1.7	0

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181	Functional imaging and neural information coding. NeuroImage, 2004, 21, 1083-1095.	4.2	25
182	Investigations into the organization of information in sensory cortex. Journal of Physiology (Paris), 2003, 97, 529-536.	2.1	19
183	Decoding Neuronal Population Activity in Rat Somatosensory Cortex: Role of Columnar Organization. Cerebral Cortex, 2003, 13, 45-52.	2.9	47
184	Coding of Sensory Signals by Neuronal Populations: The Role of Correlated Activity. Neuroscientist, 2003, 9, 175-180.	3.5	22
185	Correlations, feature-binding and population coding in primary visual cortex. NeuroReport, 2003, 14, 1045-1050.	1.2	33
186	Correlations, feature-binding and population coding in primary visual cortex. NeuroReport, 2003, 14, 1045-1050.	1.2	42
187	A Practical Guide to Information Analysis of Spike Trains. , 2003, , 139-154.		5
188	An exact method to quantify the information transmitted by different mechanisms of correlational coding. Network: Computation in Neural Systems, 2003, 14, 35-60.	3.6	147
189	Toward statistically valid population decoding models. Neurocomputing, 2002, 44-46, 269-274.	5.9	0
190	Coding of stimulus location by spike timing in rat somatosensory cortex. Neurocomputing, 2002, 44-46, 573-578.	5.9	6
191	Functional imaging and neuronal information processing. Neurocomputing, 2002, 44-46, 1127-1131.	5.9	3
192	The role of correlated firing and synchrony in coding information about single and separate objects in cat V1. Neurocomputing, 2002, 44-46, 579-584.	5.9	11
193	Population coding in somatosensory cortex. Current Opinion in Neurobiology, 2002, 12, 441-447.	4.2	86
194	A critical assessment of different measures of the information carried by correlated neuronal firing. BioSystems, 2002, 67, 177-185.	2.0	24
195	The role of individual spikes and spike patterns in population coding of stimulus location in rat somatosensory cortex. BioSystems, 2002, 67, 187-193.	2.0	37
196	Comparing the Information Encoded by Different Brain Areas with Functional Imaging Techniques. Lecture Notes in Computer Science, 2002, , 105-110.	1.3	1
197	The Role of Spike Timing in the Coding of Stimulus Location in Rat Somatosensory Cortex. Neuron, 2001, 29, 769-777.	8.1	382
198	Population Coding of Stimulus Location in Rat Somatosensory Cortex. Neuron, 2001, 32, 503-514.	8.1	219

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