Heather L Read

List of Publications by Year
in descending order

41 papers	2,227 citations	361413 20 h-index	315739 38 g-index
43 all docs	43 docs citations	43 times ranked	1473 citing authors

#	Article	IF	Citations
1	Data-driven Koopman operator approach for computational neuroscience. Annals of Mathematics and Artificial Intelligence, 2020, 88, 1155-1173.	1.3	16
2	Distinct neural ensemble response statistics are associated with recognition and discrimination of natural sound textures. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 31482-31493.	7.1	19
3	Optimal Multichannel Artifact Prediction and Removal for Neural Stimulation and Brain Machine Interfaces. Frontiers in Neuroscience, 2020, 14, 709.	2.8	7
4	Modeling stimulus-dependent variability improves decoding of population neural responses. Journal of Neural Engineering, 2019, 16, 066018.	3.5	7
5	A temporal integration mechanism enhances frequency selectivity of broadband inputs to inferior colliculus. PLoS Biology, 2019, 17, e2005861.	5.6	5
6	Sensing Sound Through Thalamocortical Afferent Architecture and Cortical Microcircuits. Springer Handbook of Auditory Research, 2018, , 169-198.	0.7	1
7	Origins of scale invariance in vocalization sequences and speech. PLoS Computational Biology, 2018, 14, e1005996.	3.2	9
8	Data-driven spectral decomposition of ECoG signal from an auditory oddball experiment in a marmoset monkey: Implications for EEG data in humans. , 2018, , .		3
9	A Hierarchy of Time Scales for Discriminating and Classifying the Temporal Shape of Sound in Three Auditory Cortical Fields. Journal of Neuroscience, 2018, 38, 6967-6982.	3.6	17
10	Neural spike-timing patterns vary with sound shape and periodicity in three auditory cortical fields. Journal of Neurophysiology, 2016, 115, 1886-1904.	1.8	26
11	Novel acoustic stimuli can alter locomotor speed to hippocampal theta relationship. Hippocampus, 2014, 24, 1053-1058.	1.9	6
12	A high-density, high-channel count, multiplexed Î¼ECoG array for auditory-cortex recordings. Journal of Neurophysiology, 2014, 112, 1566-1583.	1.8	90
13	Gene Expression Identifies Distinct Ascending Glutamatergic Pathways to Frequency-Organized Auditory Cortex in the Rat Brain. Journal of Neuroscience, 2012, 32, 15759-15768.	3.6	29
14	Precise Feature Based Time Scales and Frequency Decorrelation Lead to a Sparse Auditory Code. Journal of Neuroscience, 2012, 32, 8454-8468.	3.6	34
15	Spectrotemporal sound preferences of neighboring inferior colliculus neurons: implications for local circuitry and processing. Frontiers in Neural Circuits, 2012, 6, 62.	2.8	26
16	Distinct core thalamocortical pathways to central and dorsal primary auditory cortex. Hearing Research, 2011, 274, 95-104.	2.0	14
17	Thalamocortical pathway specialization for sound frequency resolution. Journal of Comparative Neurology, 2011, 519, 177-193.	1.6	36
18	Thalamocortical pathway specialization for sound frequency resolution. Journal of Comparative Neurology, 2011, 519, spc1-spc1.	1.6	2

#	Article	IF	Citations
19	Thalamic label patterns suggest primary and ventral auditory fields are distinct core regions. Journal of Comparative Neurology, 2010, 518, 1630-1646.	1.6	52
20	Thalamic label patterns suggest primary and ventral auditory fields are distinct core regions. Journal of Comparative Neurology, 2010, 518, spc1-spc1.	1.6	0
21	Spectral and Temporal Modulation Tradeoff in the Inferior Colliculus. Journal of Neurophysiology, 2010, 103, 887-903.	1.8	73
22	Specialization of Binaural Responses in Ventral Auditory Cortices. Journal of Neuroscience, 2010, 30, 14522-14532.	3.6	49
23	Neural Modulation Tuning Characteristics Scale to Efficiently Encode Natural Sound Statistics. Journal of Neuroscience, 2010, 30, 15969-15980.	3.6	72
24	Two thalamic pathways to primary auditory cortex. Neuroscience, 2008, 152, 151-159.	2.3	22
25	Spectral processing deficits in belt auditory cortex following early postnatal lesions of somatosensory cortex. Neuroscience, 2008, 153, 535-549.	2.3	12
26	The acoustical cues to sound location in the rat: Measurements of directional transfer functions. Journal of the Acoustical Society of America, 2008, 123, 4297-4309.	1.1	71
27	Multiparametric Auditory Receptive Field Organization Across Five Cortical Fields in the Albino Rat. Journal of Neurophysiology, 2007, 97, 3621-3638.	1.8	289
28	Early cortical damage in rat somatosensory cortex alters acoustic feature representation in primary auditory cortex. Neuroscience, 2007, 150, 970-983.	2.3	20
29	A Spiking Neuron Model of Cortical Correlates of Sensorineural Hearing Loss: Spontaneous Firing, Synchrony, and Tinnitus. Neural Computation, 2006, 18, 2942-2958.	2.2	64
30	Neural Mechanisms for Spectral Analysis in the Auditory Midbrain, Thalamus, and Cortex. International Review of Neurobiology, 2005, 70, 207-252.	2.0	22
31	The Contribution of Spike Threshold to Acoustic Feature Selectivity, Spike Information Content, and Information Throughput. Journal of Neuroscience, 2005, 25, 9524-9534.	3.6	37
32	Representation of spectrotemporal sound information in the ascending auditory pathway. Biological Cybernetics, 2003, 89, 350-362.	1.3	44
33	Naturalistic Auditory Contrast Improves Spectrotemporal Coding in the Cat Inferior Colliculus. Journal of Neuroscience, 2003, 23, 11489-11504.	3.6	111
34	Spectrotemporal Receptive Fields in the Lemniscal Auditory Thalamus and Cortex. Journal of Neurophysiology, 2002, 87, 516-527.	1.8	328
35	Functional architecture of auditory cortex. Current Opinion in Neurobiology, 2002, 12, 433-440.	4.2	143
36	Functional Convergence of Response Properties in the Auditory Thalamocortical System. Neuron, 2001, 32, 151-160.	8.1	195

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37	Deterministic dynamics emerging from a cortical functional architecture. Neural Networks, 2001, 14, 697-713.	5.9	11
38	Modular Organization of Frequency Integration in Primary Auditory Cortex. Annual Review of Neuroscience, 2000, 23, 501-529.	10.7	234
39	Serotonergic suppression of interhemispheric cortical synaptic potentials. Brain Research, 1994, 643, 17-28.	2.2	16
40	Models of the temporal dynamics of visual processing. Journal of Statistical Physics, 1993, 70, 297-308.	1.2	13
41	Temporal Processing in the Visual Brain. Annals of the New York Academy of Sciences, 1993, 682, 171-178.	3.8	2