Jonathan Z Simon

List of Publications by Year
in descending order

110 papers	8,463 citations	71004 43 h-index	66518 82 g-index
139 all docs	139 docs citations	139 times ranked	4835 citing authors

#	Article	IF	Citations
1	Algorithms for Estimating Time-Locked Neural Response Components in Cortical Processing of Continuous Speech. IEEE Transactions on Biomedical Engineering, 2023, 70, 88-96.	2.5	9
2	Parallel processing in speech perception with local and global representations of linguistic context. ELife, 2022, 11, .	2.8	39
3	Bilaterally Reduced Rolandic Beta Band Activity in Minor Stroke Patients. Frontiers in Neurology, 2022, 13, 819603.	1.1	3
4	Local versus long-range connectivity patterns of auditory disturbance in schizophrenia. Schizophrenia Research, 2021, 228, 262-270.	1.1	3
5	Cortical Processing of Arithmetic and Simple Sentences in an Auditory Attention Task. Journal of Neuroscience, 2021, 41, 8023-8039.	1.7	15
6	Neural Markers of Speech Comprehension: Measuring EEG Tracking of Linguistic Speech Representations, Controlling the Speech Acoustics. Journal of Neuroscience, 2021, 41, 10316-10329.	1.7	68
7	Exaggerated cortical representation of speech in older listeners: mutual information analysis. Journal of Neurophysiology, 2020, 124, 1152-1164.	0.9	18
8	High gamma cortical processing of continuous speech in younger and older listeners. NeuroImage, 2020, 222, 117291.	2.1	39
9	Continuous speech processing. Current Opinion in Physiology, 2020, 18, 25-31.	0.9	80
10	Dynamic estimation of auditory temporal response functions via state-space models with Gaussian mixture process noise. PLoS Computational Biology, 2020, 16, e1008172.	1.5	7
11	Poststroke acute dysexecutive syndrome, a disorder resulting from minor stroke due to disruption of network dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 33578-33585.	3.3	8
12	Granger Causal Inference from Indirect Low-Dimensional Measurements with Application to MEG Functional Connectivity Analysis. , 2020, , .		5
13	Neuro-current response functions: A unified approach to MEG source analysis under the continuous stimuli paradigm. NeuroImage, 2020, 211, 116528.	2.1	14
14	Neural speech restoration at the cocktail party: Auditory cortex recovers masked speech of both attended and ignored speakers. PLoS Biology, 2020, 18, e3000883.	2.6	76
15	Title is missing!. , 2020, 18, e3000883.		0
16	Title is missing!. , 2020, 18, e3000883.		0
17	Title is missing!. , 2020, 18, e3000883.		0
18	Title is missing!. , 2020, 18, e3000883.		0

#	Article	IF	Citations
19	Title is missing!. , 2020, 18, e3000883.		0
20	Title is missing!. , 2020, 18, e3000883.		0
21	Title is missing!. , 2020, 16, e1008172.		0
22	Title is missing!. , 2020, 16, e1008172.		0
23	Title is missing!. , 2020, 16, e1008172.		0
24	Title is missing!. , 2020, 16, e1008172.		0
25	Estimation of State-Space Models with Gaussian Mixture Process Noise. , 2019, , .		2
26	Speech-in-noise representation in the aging midbrain and cortex: Effects of hearing loss. PLoS ONE, 2019, 14, e0213899.	1.1	84
27	Real-Time Tracking of Magnetoencephalographic Neuromarkers during a Dynamic Attention-Switching Task. , 2019, 2019, 4148-4151.		4
28	Mutual information analysis of neural representations of speech in noise in the aging midbrain. Journal of Neurophysiology, 2019, 122, 2372-2387.	0.9	12
29	Speech Intelligibility Predicted from Neural Entrainment of the Speech Envelope. JARO - Journal of the Association for Research in Otolaryngology, 2018, 19, 181-191.	0.9	182
30	Neural source dynamics of brain responses to continuous stimuli: Speech processing from acoustics to comprehension. NeuroImage, 2018, 172, 162-174.	2.1	115
31	Delta Vs Gamma Auditory Steady State Synchrony in Schizophrenia. Schizophrenia Bulletin, 2018, 44, 378-387.	2.3	28
32	Restoration and Efficiency of the Neural Processing of Continuous Speech Are Promoted by Prior Knowledge. Frontiers in Systems Neuroscience, 2018, 12, 56.	1.2	17
33	Over-Representation of Speech in Older Adults Originates from Early Response in Higher Order Auditory Cortex. Acta Acustica United With Acustica, 2018, 104, 774-777.	0.8	45
34	Cortical Localization of the Auditory Temporal Response Function from MEG via Non-convex Optimization. , 2018, , .		1
35	Rapid Transformation from Auditory to Linguistic Representations of Continuous Speech. Current Biology, 2018, 28, 3976-3983.e5.	1.8	211
36	Real-Time Decoding of Auditory Attention from EEG via Bayesian Filtering. , 2018, 2018, 25-28.		4

#	ARTICLE	IF	CITATIONS
37	Real-Time Tracking of Selective Auditory Attention From M/EEG: A Bayesian Filtering Approach. Frontiers in Neuroscience, 2018, 12, 262.	1.4	94
38	Ear and Brain Mechanisms for Parsing the Auditory Scene. Springer Handbook of Auditory Research, 2017, , 1-6.	0.3	3
39	Human Auditory Neuroscience and the Cocktail Party Problem. Springer Handbook of Auditory Research, 2017, , 169-197.	0.3	3
40	Cortical Representations of Speech in a Multitalker Auditory Scene. Journal of Neuroscience, 2017, 37, 9189-9196.	1.7	87
41	Dynamic Estimation of the Auditory Temporal Response Function From MEG in Competing-Speaker Environments. IEEE Transactions on Biomedical Engineering, 2017, 64, 1896-1905.	2.5	37
42	Dynamic cortical representations of perceptual filling-in for missing acoustic rhythm. Scientific Reports, 2017, 7, 17536.	1.6	12
43	Evidence of degraded representation of speech in noise, in the aging midbrain and cortex. Journal of Neurophysiology, 2016, 116, 2346-2355.	0.9	185
44	Encoding of natural sounds by variance of the cortical local field potential. Journal of Neurophysiology, 2016, 115, 2389-2398.	0.9	8
45	Overlapping communities reveal rich structure in large-scale brain networks during rest and task conditions. NeuroImage, 2016, 135, 92-106.	2.1	88
46	Low-power EEG monitor based on compressed sensing with compressed domain noise rejection. , 2016, , .		6
47	Effect of informational content of noise on speech representation in the aging midbrain and cortex. Journal of Neurophysiology, 2016, 116, 2356-2367.	0.9	87
48	Robust decoding of selective auditory attention from MEG in a competing-speaker environment via state-space modeling. NeuroImage, 2016, 124, 906-917.	2.1	67
49	Multi-time resolution analysis of speech: evidence from psychophysics. Frontiers in Neuroscience, 2015, 9, 214.	1.4	51
50	The encoding of auditory objects in auditory cortex: Insights from magnetoencephalography. International Journal of Psychophysiology, 2015, 95, 184-190.	0.5	30
51	Investigating the Neural Correlates of a Streaming Percept in an Informational-Masking Paradigm. PLoS ONE, 2014, 9, e114427.	1.1	16
52	Cortical entrainment to continuous speech: functional roles and interpretations. Frontiers in Human Neuroscience, 2014, 8, 311.	1.0	350
53	Robust cortical entrainment to the speech envelope relies on the spectro-temporal fine structure. NeuroImage, 2014, 88, 41-46.	2.1	234
54	Robust Cortical Encoding of Slow Temporal Modulations of Speech. Advances in Experimental Medicine and Biology, 2013, 787, 373-381.	0.8	15

#	Article	IF	Citations
55	Power and phase properties of oscillatory neural responses in the presence of background activity. Journal of Computational Neuroscience, 2013, 34, 337-343.	0.6	53
56	Mechanisms Underlying Selective Neuronal Tracking of Attended Speech at a â€œCocktail Partyâ€• Neuron, 2013, 77, 980-991.	3.8	732
57	Physiological evidence for auditory modulation filterbanks: Cortical responses to concurrent modulations. Journal of the Acoustical Society of America, 2013, 133, EL7-EL12.	0.5	24
58	Adaptive Temporal Encoding Leads to a Background-Insensitive Cortical Representation of Speech. Journal of Neuroscience, 2013, 33, 5728-5735.	1.7	315
59	Emergence of neural encoding of auditory objects while listening to competing speakers. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 11854-11859.	3.3	695
60	Neural coding of continuous speech in auditory cortex during monaural and dichotic listening. Journal of Neurophysiology, 2012, 107, 78-89.	0.9	414
61	Sensitivity to temporal modulation rate and spectral bandwidth in the human auditory system: MEG evidence. Journal of Neurophysiology, 2012, 107, 2033-2041.	0.9	75
62	Diffusion kurtosis as an in vivo imaging marker for reactive astrogliosis in traumatic brain injury. NeuroImage, 2012, 59, 467-477.	2.1	265
63	The Elicitation of Audiovisual Steady-State Responses: Multi-Sensory Signal Congruity and Phase Effects. Brain Topography, 2011, 24, 134-148.	0.8	8
64	Neural dynamics of attending and ignoring in human auditory cortex. Neuropsychologia, 2010, 48, 3262-3271.	0.7	64
65	Competing Streams at the Cocktail Party: Exploring the Mechanisms of Attention and Temporal Integration. Journal of Neuroscience, 2010, 30, 12084-12093.	1.7	59
66	Magnetoencephalography and Auditory Neural Representations. IFMBE Proceedings, 2010, , 45-48.	0.2	0
67	Auditory Streaming at the Cocktail Party: Simultaneous Neural and Behavioral Studies of Auditory Attention. , 2010, , 545-553.		1
68	Detection of Interaural Time Differences in the Alligator. Journal of Neuroscience, 2009, 29, 7978-7990.	1.7	56
69	Interaction between Attention and Bottom-Up Saliency Mediates the Representation of Foreground and Background in an Auditory Scene. PLoS Biology, 2009, 7, e1000129.	2.6	153
70	Neural Representations of Complex Temporal Modulations in the Human Auditory Cortex. Journal of Neurophysiology, 2009, 102, 2731-2743.	0.9	46
71	Sensor noise suppression. Journal of Neuroscience Methods, 2008, 168, 195-202.	1.3	68
72	Denoising based on spatial filtering. Journal of Neuroscience Methods, 2008, 171, 331-339.	1.3	196

#	Article	IF	Citations
73	Auditory temporal edge detection in human auditory cortex. Brain Research, 2008, 1213, 78-90.	1.1	39
74	A Sensorimotor Approach to Sound Localization. Neural Computation, 2008, 20, 603-635.	1.3	50
75	MEG Signal Denoising Based on Time-Shift PCA. , 2007, , .		0
76	Temporal Symmetry in Primary Auditory Cortex: Implications for Cortical Connectivity. Neural Computation, 2007, 19, 583-638.	1.3	34
77	Processing Asymmetry of Transitions between Order and Disorder in Human Auditory Cortex. Journal of Neuroscience, 2007, 27, 5207-5214.	1.7	71
78	Stimulus Context Affects Auditory Cortical Responses to Changes in Interaural Correlation. Journal of Neurophysiology, 2007, 98, 224-231.	0.9	19
79	Concurrent Encoding of Frequency and Amplitude Modulation in Human Auditory Cortex: Encoding Transition. Journal of Neurophysiology, 2007, 98, 3473-3485.	0.9	19
80	Denoising based on time-shift PCA. Journal of Neuroscience Methods, 2007, 165, 297-305.	1.3	192
81	Delayed detection of tonal targets in background noise in dyslexia. Brain and Language, 2007, 102, 80-90.	0.8	22
82	Human Auditory Cortical Processing of Transitions Between â€˜Orderâ€™ and â€˜Disorderâ€™. , 2007, , 323-331.		1
83	Concurrent Encoding of Frequency and Amplitude Modulation in Human Auditory Cortex: MEG Evidence. Journal of Neurophysiology, 2006, 96, 2712-2723.	0.9	46
84	Stimulus-invariant processing and spectrotemporal reverse correlation in primary auditory cortex. Journal of Computational Neuroscience, 2006, 20, 111-136.	0.6	53
85	Neural Response Correlates of Detection of Monaurally and Binaurally Created Pitches in Humans. Cerebral Cortex, 2006, 16, 835-848.	1.6	84
86	Fully complex magnetoencephalography. Journal of Neuroscience Methods, 2005, 149, 64-73.	1.3	25
87	Human Auditory Cortical Processing of Changes in Interaural Correlation. Journal of Neuroscience, 2005, 25, 8518-8527.	1.7	57
88	The enigma of cortical responses: Slow yet precise. , 2005, , 484-493.		2
89	Dynamics of Precise Spike Timing in Primary Auditory Cortex. Journal of Neuroscience, 2004, 24, 1159-1172.	1.7	142
90	Auditory M50 and M100 responses to broadband noise: functional implications. NeuroReport, 2004, 15, 2455-2458.	0.6	53

#	ARTICLE	IF	CITATIONS
91	Modeling coincidence detection in nucleus laminaris. Biological Cybernetics, 2003, 89, 388-396.	0.6	44
92	Spectro-Temporal Response Field Characterization With Dynamic Ripples in Ferret Primary Auditory Cortex. Journal of Neurophysiology, 2001, 85, 1220-1234.	0.9	364
93	Robust spectrotemporal reverse correlation for the auditory system: optimizing stimulus design. Journal of Computational Neuroscience, 2000, 9, 85-111.	0.6	212
94	A dendritic model of coincidence detection in the avian brainstem. Neurocomputing, 1999, 26-27, 263-269.	3.5	22
95	Hamiltonian thermodynamics of a Lovelock black hole. Physical Review D, 1997, 55, 3525-3535.	1.6	31
96	The physics of time travel. Physics World, 1994, 7, 27-34.	0.0	3
97	Einstein equation with quantum corrections reduced to second order. Physical Review D, 1993, 47, 1339-1355.	1.6	133
98	Unitarity of interacting fields in curved spacetime. Physical Review D, 1992, 46, 4442-4455.	1.6	13
99	Failure of unitarity for interacting fields on spacetimes with closed timelike curves. Physical Review D, 1992, 46, 4456-4469.	1.6	37
100	No Starobinsky inflation from self-consistent semiclassical gravity. Physical Review D, 1992, 45, 1953-1960.	1.6	63
101	Time travel on a string. Nature, 1992, 357, 19-21.	13.7	8
102	Stability of flat space, semiclassical gravity, and higher derivatives. Physical Review D, 1991, 43, 3308-3316.	1.6	107
103	Higher-derivative Lagrangians, nonlocality, problems, and solutions. Physical Review D, 1990, 41, 3720-3733.	1.6	318
104	Black hole evaporation and higher-derivative gravity. General Relativity and Gravitation, 1989, 21, 761-766.	0.7	17
105	Black-hole thermodynamics in Lovelock gravity. Physical Review D, 1988, 38, 2434-2444.	1.6	315
106	General relativity in a (2+1)-dimensional space-time: An electrically charged solution. General Relativity and Gravitation, 1986, 18, 1019-1035.	0.7	64
107	MEG Adaptive Noise Suppression using Fast LMS. , 0, , .		9
108	Complex Valued Equivalent-Current Dipole Fits for MEG Responses. , 0, , .		0

#	ARTICLE	IF	CITATIONS
109	MEG Responses to Speech and Stimuli With Speechlike Modulations. , 0, , .		1
110	Significance tests for MEG response detection. , 0, , .		3