

Eric Halgren

List of Publications by Year in descending order

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Version: 2024-02-01

74
papers

11,125
citations

147566

31
h-index

82410

72
g-index

81
all docs

81
docs citations

81
times ranked

14415
citing authors

#	ARTICLE	IF	CITATIONS
1	The Precentral Gyrus Contributions to the Early Time-Course of Grapheme-to-Phoneme Conversion. <i>Neurobiology of Language</i> (Cambridge, Mass), 2022, 3, 18-45.	1.7	7
2	An estimation of the absolute number of axons indicates that human cortical areas are sparsely connected. <i>PLoS Biology</i> , 2022, 20, e3001575.	2.6	17
3	Human Spindle Variability. <i>Journal of Neuroscience</i> , 2022, 42, 4517-4537.	1.7	6
4	Learned Motor Patterns Are Replayed in Human Motor Cortex during Sleep. <i>Journal of Neuroscience</i> , 2022, 42, 5007-5020.	1.7	27
5	Widespread ripples synchronize human cortical activity during sleep, waking, and memory recall. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	3.3	29
6	The laminar profile of sleep spindles in humans. <i>NeuroImage</i> , 2021, 226, 117587.	2.1	13
7	A Whole-Cortex Probabilistic Diffusion Tractography Connectome. <i>ENeuro</i> , 2021, 8, ENEURO.0416-20.2020.	0.9	43
8	Travelling spindles create necessary conditions for spike-timing-dependent plasticity in humans. <i>Nature Communications</i> , 2021, 12, 1027.	5.8	45
9	Electrochemical safety limits for clinical stimulation investigated using depth and strip electrodes in the pig brain. <i>Journal of Neural Engineering</i> , 2021, 18, 046077.	1.8	12
10	Microscale dynamics of electrophysiological markers of epilepsy. <i>Clinical Neurophysiology</i> , 2021, 132, 2916-2931.	0.7	20
11	High $\hat{\Gamma}^3$ Activity in Cortex and Hippocampus Is Correlated with Autonomic Tone during Sleep. <i>ENeuro</i> , 2021, 8, ENEURO.0194-21.2021.	0.9	3
12	Replay of Learned Neural Firing Sequences during Rest in Human Motor Cortex. <i>Cell Reports</i> , 2020, 31, 107581.	2.9	37
13	Reactivation of Motor-Related Gamma Activity in Human NREM Sleep. <i>Frontiers in Neuroscience</i> , 2020, 14, 449.	1.4	8
14	Stimulus Driven Single Unit Activity From Micro-Electrocorticography. <i>Frontiers in Neuroscience</i> , 2020, 14, 55.	1.4	9
15	Decreased density of cholinergic interneurons in striatal territories in Williams syndrome. <i>Brain Structure and Function</i> , 2020, 225, 1019-1032.	1.2	3
16	Selective Formation of Porous Pt Nanorods for Highly Electrochemically Efficient Neural Electrode Interfaces. <i>Nano Letters</i> , 2019, 19, 6244-6254.	4.5	51
17	The generation and propagation of the human alpha rhythm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 23772-23782.	3.3	229
18	Coordination of Human Hippocampal Sharpwave Ripples during NREM Sleep with Cortical Theta Bursts, Spindles, Downstates, and Upstates. <i>Journal of Neuroscience</i> , 2019, 39, 8744-8761.	1.7	57

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19	Selective recruitment of cortical neurons by electrical stimulation. PLoS Computational Biology, 2019, 15, e1007277.	1.5	20
20	Posterior Hippocampal Spindle Ripples Co-occur with Neocortical Theta Bursts and Downstates-Upstates, and Phase-Lock with Parietal Spindles during NREM Sleep in Humans. Journal of Neuroscience, 2019, 39, 8949-8968.	1.7	46
21	Delay differential analysis for dynamical sleep spindle detection. Journal of Neuroscience Methods, 2019, 316, 12-21.	1.3	11
22	Correlation Structure in Micro-EEG Recordings is Described by Spatially Coherent Components. PLoS Computational Biology, 2019, 15, e1006769.	1.5	32
23	Effects of Early Language Deprivation on Brain Connectivity: Language Pathways in Deaf Native and Late First-Language Learners of American Sign Language. Frontiers in Human Neuroscience, 2019, 13, 320.	1.0	38
24	Sub-millimeter ECoG pitch in human enables higher fidelity cognitive neural state estimation. NeuroImage, 2018, 176, 454-464.	2.1	36
25	Heterogeneous Origins of Human Sleep Spindles in Different Cortical Layers. Journal of Neuroscience, 2018, 38, 3013-3025.	1.7	40
26	Superficial Slow Rhythms Integrate Cortical Processing in Humans. Scientific Reports, 2018, 8, 2055.	1.6	56
27	Neurolinguistic processing when the brain matures without language. Cortex, 2018, 99, 390-403.	1.1	27
28	Development and Translation of PEDOT:PSS Microelectrodes for Intraoperative Monitoring. Advanced Functional Materials, 2018, 28, 1700232.	7.8	97
29	Increased glia density in the caudate nucleus in williams syndrome: Implications for frontostriatal dysfunction in autism. Developmental Neurobiology, 2018, 78, 531-545.	1.5	9
30	Theta Bursts Precede, and Spindles Follow, Cortical and Thalamic Downstates in Human NREM Sleep. Journal of Neuroscience, 2018, 38, 9989-10001.	1.7	52
31	Monolithic and Scalable Au Nanorod Substrates Improve PEDOT's Metal Adhesion and Stability in Neural Electrodes. Advanced Healthcare Materials, 2018, 7, e1800923.	3.9	35
32	Thalamocortical and intracortical laminar connectivity determines sleep spindle properties. PLoS Computational Biology, 2018, 14, e1006171.	1.5	23
33	Interpretation of the Precision Matrix and Its Application in Estimating Sparse Brain Connectivity during Sleep Spindles from Human Electroencephalography Recordings. Neural Computation, 2017, 29, 603-642.	1.3	20
34	Local field potentials primarily reflect inhibitory neuron activity in human and monkey cortex. Scientific Reports, 2017, 7, 40211.	1.6	82
35	Williams syndrome-specific neuroanatomical profile and its associations with behavioral features. NeuroImage: Clinical, 2017, 15, 343-347.	1.4	33
36	Coordination of cortical and thalamic activity during non-REM sleep in humans. Nature Communications, 2017, 8, 15499.	5.8	132

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37	Replay of large-scale spatio-temporal patterns from waking during subsequent NREM sleep in human cortex. <i>Scientific Reports</i> , 2017, 7, 17380.	1.6	43
38	Scaling Effects on the Electrochemical Stimulation Performance of Au, Pt, and PEDOT:PSS Electrocorticography Arrays. <i>Advanced Functional Materials</i> , 2017, 27, 1703019.	7.8	61
39	Neural Correlates of Auditory Perceptual Awareness and Release from Informational Masking Recorded Directly from Human Cortex: A Case Study. <i>Frontiers in Neuroscience</i> , 2016, 10, 472.	1.4	16
40	High-frequency oscillations in human and monkey neocortex during the wake-sleep cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 9363-9368.	3.3	67
41	Dynamic Balance of Excitation and Inhibition in Human and Monkey Neocortex. <i>Scientific Reports</i> , 2016, 6, 23176.	1.6	212
42	Periventricular white matter abnormalities and restricted repetitive behavior in autism spectrum disorder. <i>NeuroImage: Clinical</i> , 2016, 10, 36-45.	1.4	21
43	Neural Language Processing in Adolescent First-Language Learners: Longitudinal Case Studies in American Sign Language. <i>Cerebral Cortex</i> , 2016, 26, 1015-1026.	1.6	27
44	Rotating waves during human sleep spindles organize global patterns of activity that repeat precisely through the night. <i>ELife</i> , 2016, 5, .	2.8	151
45	Cellular and neurochemical basis of sleep stages in the thalamocortical network. <i>ELife</i> , 2016, 5, .	2.8	73
46	Neurocognitive stages of spatial cognitive mapping measured during free exploration of a large-scale virtual environment. <i>Journal of Neurophysiology</i> , 2015, 113, 740-753.	0.9	12
47	Laminar profile of spontaneous and evoked theta: Rhythmic modulation of cortical processing during word integration. <i>Neuropsychologia</i> , 2015, 76, 108-124.	0.7	43
48	Distribution, Amplitude, Incidence, Co-Occurrence, and Propagation of Human K-Complexes in Focal Transcortical Recordings. <i>ENeuro</i> , 2015, 2, ENEURO.0028-15.2015.	0.9	35
49	Atypical Right Hemisphere Specialization for Object Representations in an Adolescent with Specific Language Impairment. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 82.	1.0	11
50	Spatio-temporal dynamics and laterality effects of face inversion, feature presence and configuration, and face outline. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 868.	1.0	3
51	Speech-Specific Tuning of Neurons in Human Superior Temporal Gyrus. <i>Cerebral Cortex</i> , 2014, 24, 2679-2693.	1.6	121
52	Synchronization of Isolated Downstates (K-Complexes) May Be Caused by Cortically-Induced Disruption of Thalamic Spindling. <i>PLoS Computational Biology</i> , 2014, 10, e1003855.	1.5	25
53	Neural Language Processing in Adolescent First-Language Learners. <i>Cerebral Cortex</i> , 2014, 24, 2772-2783.	1.6	33
54	Resting-State fMRI Activity Predicts Unsupervised Learning and Memory in an Immersive Virtual Reality Environment. <i>PLoS ONE</i> , 2014, 9, e109622.	1.1	26

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55	Human intracranial recordings during spatial exploration of a 3D virtual environment. , 2013, , .		2
56	Independence of Early Speech Processing from Word Meaning. Cerebral Cortex, 2013, 23, 2370-2379.	1.6	34
57	Interactions between Core and Matrix Thalamocortical Projections in Human Sleep Spindle Synchronization. Journal of Neuroscience, 2012, 32, 5250-5263.	1.7	89
58	Spatiotemporal dynamics of neocortical excitation and inhibition during human sleep. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1731-1736.	3.3	166
59	Localization of dense intracranial electrode arrays using magnetic resonance imaging. NeuroImage, 2012, 63, 157-165.	2.1	109
60	Sequential then interactive processing of letters and words in the left fusiform gyrus. Nature Communications, 2012, 3, 1284.	5.8	116
61	Robust representations of cortical speech and language information. , 2011, , .		2
62	Sequential temporalâ€œfrontoâ€œtemporal activation during monitoring of the auditory environment for temporal patterns. Human Brain Mapping, 2011, 32, 1260-1276.	1.9	32
63	First-Pass Selectivity for Semantic Categories in Human Anteroventral Temporal Lobe. Journal of Neuroscience, 2011, 31, 18119-18129.	1.7	129
64	Response to Comment on â€œThe Human K-Complex Represents an Isolated Cortical Down-Stateâ€œ. Science, 2010, 330, 35-35.	6.0	3
65	Heterogeneous neuronal firing patterns during interictal epileptiform discharges in the human cortex. Brain, 2010, 133, 1668-1681.	3.7	168
66	Automatic parcellation of human cortical gyri and sulci using standard anatomical nomenclature. NeuroImage, 2010, 53, 1-15.	2.1	2,251
67	Multimodal imaging of repetition priming: Using fMRI, MEG, and intracranial EEG to reveal spatiotemporal profiles of word processing. NeuroImage, 2010, 53, 707-717.	2.1	77
68	Laminar analysis of slow wave activity in humans. Brain, 2010, 133, 2814-2829.	3.7	207
69	Automated whiteâ€œmatter tractography using a probabilistic diffusion tensor atlas: Application to temporal lobe epilepsy. Human Brain Mapping, 2009, 30, 1535-1547.	1.9	217
70	The Human K-Complex Represents an Isolated Cortical Down-State. Science, 2009, 324, 1084-1087.	6.0	328
71	Sequential Processing of Lexical, Grammatical, and Phonological Information Within Brocaâ€™s Area. Science, 2009, 326, 445-449.	6.0	383
72	Processing stages underlying word recognition in the anteroventral temporal lobe. NeuroImage, 2006, 30, 1401-1413.	2.1	69

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73	Automatically Parcellating the Human Cerebral Cortex. <i>Cerebral Cortex</i> , 2004, 14, 11-22.	1.6	3,657
74	MENTAL PHENOMENA EVOKED BY ELECTRICAL STIMULATION OF THE HUMAN HIPPOCAMPAL FORMATION AND AMYGDALA. <i>Brain</i> , 1978, 101, 83-115.	3.7	674