

# Catherine A Schevon

## List of Publications by Year in descending order

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86  
papers

6,997  
citations

117625

34  
h-index

69250

77  
g-index

110  
all docs

110  
docs citations

110  
times ranked

6258  
citing authors

#	ARTICLE	IF	CITATIONS
1	Tracking Multisite Seizure Propagation Using Ictal High-Gamma Activity. <i>Journal of Clinical Neurophysiology</i> , 2022, 39, 592-601.	1.7	5
2	Alpha and broadband high-frequency activity track task dynamics and predict performance in controlled decision-making. <i>Psychophysiology</i> , 2022, 59, e13901.	2.4	10
3	Human interictal epileptiform discharges are bidirectional traveling waves echoing ictal discharges. <i>ELife</i> , 2022, 11, .	6.0	31
4	Multiscale temporal integration organizes hierarchical computation in human auditory cortex. <i>Nature Human Behaviour</i> , 2022, 6, 455-469.	12.0	36
5	Single unit analysis and wide-field imaging reveal alterations in excitatory and inhibitory neurons in glioma. <i>Brain</i> , 2022, 145, 3666-3680.	7.6	5
6	Neuronal Firing and Waveform Alterations through Ictal Recruitment in Humans. <i>Journal of Neuroscience</i> , 2021, 41, 766-779.	3.6	21
7	Stimulating Solutions for Intractable Epilepsy. <i>Epilepsy Currents</i> , 2021, , 153575972110124.	0.8	6
8	Wheels Within Wheels: Theory and Practice of Epileptic Networks. <i>Epilepsy Currents</i> , 2021, 21, 243-247.	0.8	19
9	Highlights From AES2020, a Virtual American Epilepsy Society Experience. <i>Epilepsy Currents</i> , 2021, , 153575972110182.	0.8	1
10	Electrically stimulated auras as a potential biomarker of the epileptogenic zone. <i>Epilepsy and Behavior</i> , 2021, 122, 108116.	1.7	1
11	Ex vivo multi-electrode analysis reveals spatiotemporal dynamics of ictal behavior at the infiltrated margin of glioma. <i>Neurobiology of Disease</i> , 2020, 134, 104676.	4.4	9
12	Single-Neuron Representations of Spatial Targets in Humans. <i>Current Biology</i> , 2020, 30, 245-253.e4.	3.9	37
13	Seizure Activity Across Scales From Neuronal Population Firing to Clonic Motor Semiology. <i>Journal of Clinical Neurophysiology</i> , 2020, 37, 462-464.	1.7	5
14	Dual mechanisms of ictal high frequency oscillations in human rhythmic onset seizures. <i>Scientific Reports</i> , 2020, 10, 19166.	3.3	18
15	Functionally distinct high and low theta oscillations in the human hippocampus. <i>Nature Communications</i> , 2020, 11, 2469.	12.8	126
16	All-cause mortality and SUDEP in a surgical epilepsy population. <i>Epilepsy and Behavior</i> , 2020, 108, 107093.	1.7	22
17	Controversies on the network theory of epilepsy: Debates held during the ICTALS 2019 conference. <i>Seizure: the Journal of the British Epilepsy Association</i> , 2020, 78, 78-85.	2.0	17
18	Glioma-Induced Alterations in Neuronal Activity and Neurovascular Coupling during Disease Progression. <i>Cell Reports</i> , 2020, 31, 107500.	6.4	61

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19	A model for focal seizure onset, propagation, evolution, and progression. <i>ELife</i> , 2020, 9, .	6.0	62
20	Cortical naming sites and increasing age in adults with refractory epilepsy: More might be less. <i>Epilepsia</i> , 2019, 60, 1619-1626.	5.1	2
21	Postictal clinical and <scp>EEG</scp> activity following intracranially recorded bilateral tonic-clonic seizures. <i>Epilepsia</i> , 2019, 60, 1746-1747.	5.1	4
22	Risk of seizures induced by intracranial research stimulation: analysis of 770 stimulation sessions. <i>Journal of Neural Engineering</i> , 2019, 16, 066039.	3.5	8
23	Hierarchical Encoding of Attended Auditory Objects in Multi-talker Speech Perception. <i>Neuron</i> , 2019, 104, 1195-1209.e3.	8.1	90
24	Burst suppression uncovers rapid widespread alterations in network excitability caused by an acute seizure focus. <i>Brain</i> , 2019, 142, 3045-3058.	7.6	10
25	Role of paroxysmal depolarization in focal seizure activity. <i>Journal of Neurophysiology</i> , 2019, 122, 1861-1873.	1.8	22
26	Commentary on: Corpus callosum low-frequency stimulation suppresses seizures in an acute rat model of focal cortical seizures. <i>Epilepsia</i> , 2019, 60, 1275-1276.	5.1	0
27	Highlights From the Annual Meeting of the American Epilepsy Society 2018. <i>Epilepsy Currents</i> , 2019, 19, 152-158.	0.8	5
28	Multiscale recordings reveal the dynamic spatial structure of human seizures. <i>Neurobiology of Disease</i> , 2019, 127, 303-311.	4.4	50
29	Teaching NeuroImages: Acute stroke captured on EEG in the ICU. <i>Neurology</i> , 2019, 92, e626-e627.	1.1	3
30	Widespread temporal coding of cognitive control in the human prefrontal cortex. <i>Nature Neuroscience</i> , 2019, 22, 1883-1891.	14.8	77
31	Memory retrieval modulates spatial tuning of single neurons in the human entorhinal cortex. <i>Nature Neuroscience</i> , 2019, 22, 2078-2086.	14.8	28
32	Postictal clinical and electroencephalographic activity following intracranially recorded bilateral tonic-clonic seizures. <i>Epilepsia</i> , 2019, 60, 74-84.	5.1	28
33	Temporal Context Invariance Reveals Neural Processing Timescales in Human Auditory Cortex. , 2019, , .		0
34	Somatic <i>SLC35A2</i> variants in the brain are associated with intractable neocortical epilepsy. <i>Annals of Neurology</i> , 2018, 83, 1133-1146.	5.3	95
35	Laser ablation is effective for temporal lobe epilepsy with and without mesial temporal sclerosis if hippocampal seizure onsets are localized by stereoelectroencephalography. <i>Epilepsia</i> , 2018, 59, 595-606.	5.1	72
36	The Relationship Between Ictal Multi-Unit Activity and the Electrocorticogram. <i>International Journal of Neural Systems</i> , 2018, 28, 1850027.	5.2	7

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37	Lateralized hippocampal oscillations underlie distinct aspects of human spatial memory and navigation. <i>Nature Communications</i> , 2018, 9, 2423.	12.8	132
38	Role of inhibitory control in modulating focal seizure spread. <i>Brain</i> , 2018, 141, 2083-2097.	7.6	75
39	Multivariate regression methods for estimating velocity of ictal discharges from human microelectrode recordings. <i>Journal of Neural Engineering</i> , 2017, 14, 044001.	3.5	24
40	Cross-scale effects of neural interactions during human neocortical seizure activity. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 10761-10766.	7.1	45
41	Update on the mechanisms and roles of high-frequency oscillations in seizures and epileptic disorders. <i>Epilepsia</i> , 2017, 58, 1330-1339.	5.1	145
42	Methodological standards and functional correlates of depth in vivo electrophysiological recordings in control rodents. A TASK 1 WG 3 report of the AES / ILAE Translational Task Force of the ILAE. <i>Epilepsia</i> , 2017, 58, 28-39.	5.1	17
43	The role of computational modelling in seizure localization. <i>Brain</i> , 2017, 140, 254-256.	7.6	5
44	Neuronal activity in human anterior cingulate cortex modulates with internal cognitive state during multi-source interference task. , 2017, 2017, 962-965.		3
45	The ictal wavefront is the spatiotemporal source of discharges during spontaneous human seizures. <i>Nature Communications</i> , 2016, 7, 11098.	12.8	124
46	Functional differences among stimulation-identified cortical naming sites in the temporal region. <i>Epilepsy and Behavior</i> , 2016, 60, 124-129.	1.7	15
47	Toward a Mechanistic Understanding of Epileptic Networks. <i>Current Neurology and Neuroscience Reports</i> , 2016, 16, 97.	4.2	53
48	Multiscale Aspects of Generation of High-Gamma Activity during Seizures in Human Neocortex. <i>ENEuro</i> , 2016, 3, ENEURO.0141-15.2016.	1.9	30
49	Investigating the Function of Deep Cortical and Subcortical Structures Using Stereotactic Electroencephalography: Lessons from the Anterior Cingulate Cortex. <i>Journal of Visualized Experiments</i> , 2015, , .	0.3	2
50	Intracranial recordings reveal transient response dynamics during information maintenance in human cerebral cortex. <i>Human Brain Mapping</i> , 2015, 36, 3988-4003.	3.6	15
51	Epileptogenic Networks: Applying Network Analysis Techniques to Human Seizure Activity. <i>Springer Series in Computational Neuroscience</i> , 2015, , 293-312.	0.3	1
52	Modeling Focal Epileptic Activity in the Wilson-Cowan Model with Depolarization Block. <i>Journal of Mathematical Neuroscience</i> , 2015, 5, 7.	2.4	43
53	Seizure localization using ictal phase-locked high gamma. <i>Neurology</i> , 2015, 84, 2320-2328.	1.1	95
54	Single unit action potentials in humans and the effect of seizure activity. <i>Brain</i> , 2015, 138, 2891-2906.	7.6	81

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55	Ignition's glow: Ultra-fast spread of global cortical activity accompanying local "ignitions" in visual cortex during conscious visual perception. <i>Consciousness and Cognition</i> , 2015, 35, 206-224.	1.5	47
56	Extraoperative neurostimulation mapping: Results from an international survey of epilepsy surgery programs. <i>Epilepsia</i> , 2014, 55, 933-939.	5.1	58
57	Exemplar Selectivity Reflects Perceptual Similarities in the Human Fusiform Cortex. <i>Cerebral Cortex</i> , 2014, 24, 1879-1893.	2.9	67
58	Characteristics and clinical impact of stimulation-evoked seizures during extraoperative cortical mapping. <i>Epilepsy and Behavior</i> , 2014, 34, 6-8.	1.7	20
59	Features and timing of the response of single neurons to novelty in the substantia nigra. <i>Brain Research</i> , 2014, 1542, 79-84.	2.2	19
60	How inhibition influences seizure propagation. <i>Neuropharmacology</i> , 2013, 69, 45-54.	4.1	105
61	Ictal high frequency oscillations distinguish two types of seizure territories in humans. <i>Brain</i> , 2013, 136, 3796-3808.	7.6	188
62	Synchronization and desynchronization in epilepsy: controversies and hypotheses. <i>Journal of Physiology</i> , 2013, 591, 787-797.	2.9	450
63	Mechanisms Underlying Selective Neuronal Tracking of Attended Speech at a "Cocktail Party". <i>Neuron</i> , 2013, 77, 980-991.	8.1	732
64	Field effects and ictal synchronization: insights from in homine observations. <i>Frontiers in Human Neuroscience</i> , 2013, 7, 828.	2.0	14
65	Evidence of an inhibitory restraint of seizure activity in humans. <i>Nature Communications</i> , 2012, 3, 1060.	12.8	365
66	A case-study on learning from large-scale intracranial EEG data using multi-core machines and clusters. , 2011, , .		0
67	Tuning of the Human Neocortex to the Temporal Dynamics of Attended Events. <i>Journal of Neuroscience</i> , 2011, 31, 3176-3185.	3.6	234
68	Propagation of Epileptiform Activity on a Submillimeter Scale. <i>Journal of Clinical Neurophysiology</i> , 2010, 27, 406-411.	1.7	56
69	Impaired consciousness in temporal lobe seizures: role of cortical slow activity. <i>Brain</i> , 2010, 133, 3764-3777.	7.6	181
70	Patient-Specific Seizure Detection from Intra-cranial EEG Using High Dimensional Clustering. , 2010, , .		3
71	Extraoperative Functional Mapping and Staged Resection of Supratentorial Tumors near Eloquent Cortex in Children. <i>Pediatric Neurosurgery</i> , 2009, 45, 175-180.	0.7	12
72	Spatial characterization of interictal high frequency oscillations in epileptic neocortex. <i>Brain</i> , 2009, 132, 3047-3059.	7.6	134

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73	INITIAL SURGICAL EXPERIENCE WITH A DENSE CORTICAL MICROARRAY IN EPILEPTIC PATIENTS UNDERGOING CRANIOTOMY FOR SUBDURAL ELECTRODE IMPLANTATION. <i>Neurosurgery</i> , 2009, 64, 540-545.	1.1	49
74	Cyclic electrographic seizures in critically ill patients. <i>Epilepsia</i> , 2008, 49, 281-287.	5.1	40
75	Microphysiology of Epileptiform Activity in Human Neocortex. <i>Journal of Clinical Neurophysiology</i> , 2008, 25, 321-330.	1.7	149
76	High-resolution Electroencephalography Provides New Insights into Epilepsy. <i>US Neurology</i> , 2008, 04, 44.	0.2	1
77	Cortical abnormalities in epilepsy revealed by local EEG synchrony. <i>NeuroImage</i> , 2007, 35, 140-148.	4.2	174
78	Pediatric Language Mapping: Sensitivity of Neurostimulation and Wada Testing in Epilepsy Surgery. <i>Epilepsia</i> , 2007, 48, 539-545.	5.1	102
79	Pediatric Language Mapping: Sensitivity of Neurostimulation and Wada Testing in Epilepsy Surgery. <i>Neurosurgery</i> , 2006, 59, 480-481.	1.1	0
80	Magnetoencephalography in epilepsy: tailoring interpretation and making inferences. <i>Current Neurology and Neuroscience Reports</i> , 2006, 6, 327-331.	4.2	10
81	Magnetoencephalography is not a substitute for intracranial electroencephalography. <i>Annals of Neurology</i> , 2006, 60, 270-270.	5.3	2
82	Inadequacy of Standard Screen Resolution for Localization of Seizures Recorded from Intracranial Electrodes. <i>Epilepsia</i> , 2004, 45, 1453-1458.	5.1	8
83	Star Unfolding of a Polytope with Applications. <i>SIAM Journal on Computing</i> , 1997, 26, 1689-1713.	1.0	59
84	Optimization by Simulated Annealing: An Experimental Evaluation; Part II, Graph Coloring and Number Partitioning. <i>Operations Research</i> , 1991, 39, 378-406.	1.9	672
85	Optimization by Simulated Annealing: An Experimental Evaluation; Part I, Graph Partitioning. <i>Operations Research</i> , 1989, 37, 865-892.	1.9	1,099
86	On the development of closed convex curves on 3-polytopes. <i>Journal of Geometry</i> , 1989, 35, 152-157.	0.4	3