Steven J Schiff

List of Publications by Year
in descending order

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133	9,698	38742 50	40979 93
papers	citations	h-index	g-index

148	148	148	7217
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Preoperative risk and postoperative outcome from subdural fluid collections in African infants with postinfectious hydrocephalus. Journal of Neurosurgery: Pediatrics, 2022, 29, 31-39.	1.3	2
2	Improving Infant Hydrocephalus Outcomes in Uganda: A Longitudinal Prospective Study Protocol for Predicting Developmental Outcomes and Identifying Patients at Risk for Early Treatment Failure after ETV/CPC. Metabolites, 2022, 12, 78.	2.9	2
3	Cytomegalovirus Infections in Ugandan Infants: Newborn-Mother Pairs, Neonates with Sepsis, and Infants with Hydrocephalus. International Journal of Infectious Diseases, 2022, , .	3.3	2
4	An Unmatched Radio Frequency Chain for Low-Field Magnetic Resonance Imaging. Frontiers in Physics, 2022, 9, .	2.1	3
5	mirTarRnaSeq: An R/Bioconductor Statistical Package for miRNA-mRNA Target Identification and Interaction Analysis. BMC Genomics, 2022, 23, .	2.8	3
6	Deep Learning Applications for Acute Stroke Management. Annals of Neurology, 2022, 92, 574-587.	5.3	16
7	Approaches in cooling of resistive coil-based low-field Magnetic Resonance Imaging (MRI) systems for application in low resource settings. BMC Biomedical Engineering, 2021, 3, 3.	2.6	4
8	Global, regional and national epidemiology and prevalence of child stunting, wasting and underweight in low- and middle-income countries, 2006â€“2018. Scientific Reports, 2021, 11, 5204.	3.3	41
9	Spreading depression as an innate antiseizure mechanism. Nature Communications, 2021, 12, 2206.	12.8	36
10	Immune activation during Paenibacillus brain infection in African infants with frequent cytomegalovirus co-infection. IScience, 2021, 24, 102351.	4.1	10
11	Pan-African evolution of within- and between-country COVID-19 dynamics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	22
12	Congenital Cytomegalovirus Infection Burden and Epidemiologic Risk Factors in Countries With Universal Screening. JAMA Network Open, 2021, 4, e2120736.	5.9	71
13	Brain growth after surgical treatment for infant postinfectious hydrocephalus in Sub-Saharan Africa: 2-year results of a randomized trial. Journal of Neurosurgery: Pediatrics, 2021, 28, 326-334.	1.3	15
14	Vaginal microbiome topic modeling of laboring Ugandan women with and without fever. Npj Biofilms and Microbiomes, 2021, 7, 75.	6.4	5
15	Normal childhood brain growth and a universal sex and anthropomorphic relationship to cerebrospinal fluid. Journal of Neurosurgery: Pediatrics, 2021, 28, 458-468.	1.3	15
16	Assessing the utility of low resolution brain imaging: treatment of infant hydrocephalus. NeuroImage: Clinical, 2021, 32, 102896.	2.7	4
17	Deep MR Brain Image Super-Resolution Using Spatio-Structural Priors. IEEE Transactions on Image Processing, 2020, 29, 1368-1383.	9.8	37
18	Paenibacillus infection with frequent viral coinfection contributes to postinfectious hydrocephalus in Ugandan infants. Science Translational Medicine, 2020, 12, .	12.4	39

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19	Exome sequencing implicates genetic disruption of prenatal neuro-gliogenesis in sporadic congenital hydrocephalus. Nature Medicine, 2020, 26, 1754-1765.	30.7	84
20	The Problem of Microbial Dark Matter in Neonatal Sepsis. Emerging Infectious Diseases, 2020, 26, 2543-2548.	4.3	17
21	Complete Genome Sequences of the Human Pathogen Paenibacillus thiaminolyticus Mbale and Type Strain P. thiaminolyticus NRRL B-4156. Microbiology Resource Announcements, 2020, 9, .	0.6	10
22	Inflammation in acquired hydrocephalus: pathogenic mechanisms and therapeutic targets. Nature Reviews Neurology, 2020, 16, 285-296.	10.1	107
23	Poisson Kalman filter for disease surveillance. Physical Review Research, 2020, 2, .	3.6	6
24	The Incidence of Postoperative Seizures Following Treatment of Postinfectious Hydrocephalus in Ugandan Infants: A Post Hoc Comparison of Endoscopic Treatment vs Shunt Placement in a Randomized Controlled Trial. Neurosurgery, 2019, 85, E714-E721.	1.1	8
25	Learning Based Segmentation of CT Brain Images: Application to Postoperative Hydrocephalic Scans. IEEE Transactions on Biomedical Engineering, 2018, 65, 1871-1884.	4.2	39
26	Changes in Ugandan Climate Rainfall at the Village and Forest Level. Scientific Reports, 2018, 8, 3551.	3.3	27
27	Normative human brain volume growth. Journal of Neurosurgery: Pediatrics, 2018, 21, 478-485.	1.3	25
28	Economic burden of neonatal sepsis in sub-Saharan Africa. BMJ Global Health, 2018, 3, e000347.	4.7	78
29	Deep Mr Image Super-Resolution Using Structural Priors. , 2018, 2018, 410-414.		4
30	A Brainâ€“Heart Biomarker for Epileptogenesis. Journal of Neuroscience, 2018, 38, 8473-8483.	3.6	15
31	Design of a sustainable prepolarizing magnetic resonance imaging system for infant hydrocephalus. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2018, 31, 665-676.	2.0	32
32	Chip-scale high Q-factor glassblown microspherical shells for magnetic sensing. AIP Advances, 2018, 8, 065214.	1.3	14
33	Control of Spreading Depression with Electrical Fields. Scientific Reports, 2018, 8, 8769.	3.3	8
34	A Murine Model to Study Epilepsy and SUDEP Induced by Malaria Infection. Scientific Reports, 2017, 7, 43652.	3.3	12
35	Expansion mini-microscopy: An enabling alternative in point-of-care diagnostics. Current Opinion in Biomedical Engineering, 2017, 1, 45-53.	3.4	11
36	Expansion of C9ORF72 in amyotrophic lateral sclerosis correlates with brain-computer interface performance. Scientific Reports, 2017, 7, 8875.	3.3	1

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37	Endoscopic Treatment versus Shunting for Infant Hydrocephalus in Uganda. New England Journal of Medicine, 2017, 377, 2456-2464.	27.0	119
38	Learning based image segmentation of post-operative CT-images: A hydrocephalus case study. , 2017, , .		3
39	Separating Putative Pathogens from Background Contamination with Principal Orthogonal Decomposition: Evidence for Leptospira in the Ugandan Neonatal Septisome. Frontiers in Medicine, 2016, 3, 22.	2.6	8
40	Effects of symmetry on the structural controllability of neural networks: A perspective. , 2016, 2016, 5785-5790.		2
41	Optimization of Metglas 2605SA1 and PZT-5A magnetoelectric laminates for magnetic sensing applications. , 2016, 2016, .		1
42	Prevalence and correlates of MRSA and MSSA nasal carriage at a Ugandan regional referral hospital. Journal of Antimicrobial Chemotherapy, 2016, 72, dkw472.	3.0	8
43	Design of a mobile, homogeneous, and efficient electromagnet with a large field of view for neonatal low-field MRI. Magnetic Resonance Materials in Physics, Biology, and Medicine, 2016, 29, 691-698.	2.0	24
44	Observability and Controllability of Nonlinear Networks: The Role of Symmetry. Physical Review X, 2015, 5, .	8.9	100
45	Role of Multiple-Scale Modeling of Epilepsy in Seizure Forecasting. Journal of Clinical Neurophysiology, 2015, 32, 220-226.	1.7	36
46	Acceptance of brain-computer interfaces in amyotrophic lateral sclerosis. Amyotrophic Lateral Sclerosis and Frontotemporal Degeneration, 2015, 16, 258-264.	1.7	18
47	Volumetric brain analysis in neurosurgery: Part 2. Brain and CSF volumes discriminate neurocognitive outcomes in hydrocephalus. Journal of Neurosurgery: Pediatrics, 2015, 15, 125-132.	1.3	54
48	Volumetric brain analysis in neurosurgery: Part 3. Volumetric CT analysis as a predictor of seizure outcome following temporal lobectomy. Journal of Neurosurgery: Pediatrics, 2015, 15, 133-143.	1.3	7
49	Volumetric brain analysis in neurosurgery: Part 1. Particle filter segmentation of brain and cerebrospinal fluid growth dynamics from MRI and CT images. Journal of Neurosurgery: Pediatrics, 2015, 15, 113-124.	1.3	32
50	The Role of Cell Volume in the Dynamics of Seizure, Spreading Depression, and Anoxic Depolarization. PLoS Computational Biology, 2015, 11, e1004414.	3.2	72
51	Rapid Eye Movement Sleep and Hippocampal Theta Oscillations Precede Seizure Onset in the Tetanus Toxin Model of Temporal Lobe Epilepsy. Journal of Neuroscience, 2014, 34, 1105-1114.	3.6	59
52	Unification of Neuronal Spikes, Seizures, and Spreading Depression. Journal of Neuroscience, 2014, 34, 11733-11743.	3.6	183
53	Oxygen and seizure dynamics: I. Experiments. Journal of Neurophysiology, 2014, 112, 205-212.	1.8	35
54	Frequency dependence of behavioral modulation by hippocampal electrical stimulation. Journal of Neurophysiology, 2014, 111, 470-480.	1.8	7

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55	Oxygen and seizure dynamics: II. Computational modeling. Journal of Neurophysiology, 2014, 112, 213-223.	1.8	73
56	Modulation of hippocampal rhythms by subthreshold electric fields and network topology. Journal of Computational Neuroscience, 2013, 34, 369-389.	1.0	50
57	Estimation of internal variables from Hodgkin-Huxley neuron voltage. , 2013, , .		2
58	Seizures as imbalanced up states: excitatory and inhibitory conductances during seizure-like events. Journal of Neurophysiology, 2013, 109, 1296-1306.	1.8	87
59	Synchronization and desynchronization in epilepsy: controversies and hypotheses. Journal of Physiology, 2013, 591, 787-797.	2.9	450
60	FRET excited ratiometric oxygen sensing in living tissue. Journal of Neuroscience Methods, 2013, 214, 45-51.	2.5	36
61	The Microbial Spectrum of Neonatal Sepsis in Uganda: Recovery of Culturable Bacteria in Mother-Infant Pairs. PLoS ONE, 2013, 8, e72775.	2.5	45
62	Reconstructing Mammalian Sleep Dynamics with Data Assimilation. PLoS Computational Biology, 2012, 8, e1002788.	3.2	29
63	Rainfall drives hydrocephalus in East Africa. Journal of Neurosurgery: Pediatrics, 2012, 10, 161-167.	1.3	27
64	The role of inhibition in oscillatory wave dynamics in the cortex. European Journal of Neuroscience, 2012, 36, 2201-2212.	2.6	13
65	Toward a Model-Based Predictive Controller Design in Brainâ€“Computer Interfaces. Annals of Biomedical Engineering, 2011, 39, 1482-1492.	2.5	10
66	Five-year survival and outcome of treatment for postinfectious hydrocephalus in Ugandan infants. Journal of Neurosurgery: Pediatrics, 2011, 8, 502-508.	1.3	74
67	Association of bacteria with hydrocephalus in Ugandan infants. Journal of Neurosurgery: Pediatrics, 2011, 7, 73-87.	1.3	43
68	Kalman filter tracking of intracellular neuronal voltage and current. , 2011, , .		11
69	Towards model-based control of Parkinson's disease: A perspective. , 2011, , .		0
70	Costs and benefits of neurosurgical intervention for infant hydrocephalus in sub-Saharan Africa. Journal of Neurosurgery: Pediatrics, 2011, 8, 509-521.	1.3	140
71	Neural Control Engineering. , 2011, , .		70
72	Assimilating Seizure Dynamics. PLoS Computational Biology, 2010, 6, e1000776.	3.2	98

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73	The dynamics of brain and cerebrospinal fluid growth in normal versus hydrocephalic mice. Journal of Neurosurgery: Pediatrics, 2010, 6, 1-10.	1.3	23
74	Controversies in epilepsy: Debates held during the Fourth International Workshop on Seizure Prediction. Epilepsy and Behavior, 2010, 19, 4-16.	1.7	61
75	Towards model-based control of Parkinson's disease. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2010, 368, 2269-2308.	3.4	105
76	Data assimilation for heterogeneous networks: The consensus set. Physical Review E, 2009, 79, 051909.	2.1	21
77	Kalman meets neuron: The emerging intersection of control theory with neuroscience. , 2009, 2009, 3318-21.		20
78	Tracking and control of neuronal Hodgkin-Huxley dynamics. Physical Review E, 2009, 79, 040901.	2.1	76
79	The influence of sodium and potassium dynamics on excitability, seizures, and the stability of persistent states: II. Network and glial dynamics. Journal of Computational Neuroscience, 2009, 26, 171-183.	1.0	125
80	The influence of sodium and potassium dynamics on excitability, seizures, and the stability of persistent states: I. Single neuron dynamics. Journal of Computational Neuroscience, 2009, 26, 159-170.	1.0	230
81	Advances in the Application of Technology to Epilepsy: The CIMIT/NIO Epilepsy Innovation Summit. Epilepsy and Behavior, 2009, 16, 3-46.	1.7	41
82	Fully optimized discrimination of physiological responses to auditory stimuli. Journal of Neural Engineering, 2008, 5, 133-143.	3.5	1
83	Kalman filter control of a model of spatiotemporal cortical dynamics. Journal of Neural Engineering, 2008, 5, 1-8.	3.5	97
84	Dynamical Evolution of Spatiotemporal Patterns in Mammalian Middle Cortex. Physical Review Letters, 2007, 98, 178102.	7.8	108
85	Improved sleepâ€“wake and behavior discrimination using MEMS accelerometers. Journal of Neuroscience Methods, 2007, 163, 373-383.	2.5	35
86	Switching between gamma and theta: Dynamic network control using subthreshold electric fields. Neurocomputing, 2007, 70, 2091-2095.	5.9	15
87	Interneuron and Pyramidal Cell Interplay During In Vitro Seizure-Like Events. Journal of Neurophysiology, 2006, 95, 3948-3954.	1.8	246
88	Dangerous Phase. Neuroinformatics, 2005, 3, 315-318.	2.8	80
89	A Model of the Effects of Applied Electric Fields on Neuronal Synchronization. Journal of Computational Neuroscience, 2005, 19, 53-70.	1.0	88
90	Control of Traveling Waves in the Mammalian Cortex. Physical Review Letters, 2005, 94, 028103.	7.8	103

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91	Multivariate linear discrimination of seizures. Clinical Neurophysiology, 2005, 116, 545-551.	1.5	43
92	Neuronal spatiotemporal pattern discrimination: The dynamical evolution of seizures. NeuroImage, 2005, 28, 1043-1055.	4.2	106
93	Spiral Waves in Disinhibited Mammalian Neocortex. Journal of Neuroscience, 2004, 24, 9897-9902.	3.6	355
94	In Vivo Modulation of Hippocampal Epileptiform Activity with Radial Electric Fields. Epilepsia, 2003, 44, 768-777.	5.1	65
95	Interplay of Electroencephalogram Phase and Auditory-Evoked Neural Activity. Journal of Neuroscience, 2003, 23, 10122-10127.	3.6	72
96	Sensitivity of Neurons to Weak Electric Fields. Journal of Neuroscience, 2003, 23, 7255-7261.	3.6	252
97	Failure of single-unit neuronal activity to differentiate globus pallidus internus and externus in Parkinson disease. Journal of Neurosurgery, 2002, 97, 119-128.	1.6	22
98	Decreased Neuronal Synchronization during Experimental Seizures. Journal of Neuroscience, 2002, 22, 7297-7307.	3.6	294
99	Adaptive Electric Field Control of Epileptic Seizures. Journal of Neuroscience, 2001, 21, 590-600.	3.6	193
100	Early Seizure Detection. Journal of Clinical Neurophysiology, 2001, 18, 259-268.	1.7	128
101	Differentiability implies continuity in neuronal dynamics. Physica D: Nonlinear Phenomena, 2001, 148, 175-181.	2.8	1
102	From Generalized Synchrony to Topological Decoherence: Emergent Sets in Coupled Chaotic Systems. Physical Review Letters, 2000, 84, 1689-1692.	7.8	28
103	Brain chirps: spectrographic signatures of epileptic seizures. Clinical Neurophysiology, 2000, 111, 953-958.	1.5	124
104	Forecasting brain storms. Nature Medicine, 1998, 4, 1117-1118.	30.7	46
105	Periodic Orbits: A New Language for Neuronal Dynamics. Biophysical Journal, 1998, 74, 2776-2785.	0.5	94
106	Randomized Trial of Cerebrospinal Fluid Shunt Valve Design in Pediatric Hydrocephalus. Neurosurgery, 1998, 43, 294-303.	1.1	672
107	Extracting unstable periodic orbits from chaotic time series data. Physical Review E, 1997, 55, 5398-5417.	2.1	102
108	Detecting Unstable Periodic Orbits in Chaotic Experimental Data. Physical Review Letters, 1996, 76, 4705-4708.	7.8	140

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109	Detecting dynamical interdependence and generalized synchrony through mutual prediction in a neural ensemble. Physical Review E, 1996, 54, 6708-6724.	2.1	344
110	Stochastic Resonance in a Neuronal Network from Mammalian Brain. Physical Review Letters, 1996, 77, 4098-4101.	7.8	316
111	Looking for chaos in brain slices. Journal of Neuroscience Methods, 1995, 59, 41-48.	2.5	18
112	Quinolinic acid in tumors, hemorrhage and bacterial infections of the central nervous system in children. Journal of the Neurological Sciences, 1995, 133, 112-118.	0.6	59
113	An experimental study of reflex variability in selective dorsal rhizotomy. Journal of Neurosurgery, 1994, 81, 885-894.	1.6	13
114	Time-related patterns of ventricular shunt failure. Child's Nervous System, 1994, 10, 524-528.	1.1	74
115	Controlling chaos in the brain. Nature, 1994, 370, 615-620.	27.8	898
116	Fast wavelet transformation of EEG. Electroencephalography and Clinical Neurophysiology, 1994, 91, 442-455.	0.3	185
117	Use of recombinant human erythropoietin to avoid blood transfusion in a Jehovah's Witness requiring hemispherectomy. Journal of Neurosurgery, 1993, 79, 600-602.	1.6	17
118	Reflex variability in selective dorsal rhizotomy. Journal of Neurosurgery, 1993, 79, 346-353.	1.6	30
119	Resolving time-series structure with a controlled wavelet transform. Optical Engineering, 1992, 31, 2492.	1.0	29
120	Differentiation of linearly correlated noise from chaos in a biologic system using surrogate data. Biological Cybernetics, 1992, 67, 387-393.	1.3	39
121	A surgeon's risk of AIDS. Journal of Neurosurgery, 1990, 73, 651-660.	1.6	23
122	Intracerebral Extension of Nasal Dermoid Cyst. Journal of Computer Assisted Tomography, 1989, 13, 1061-1064.	0.9	22
123	Delayed Cerebrospinal-Fluid Shunt Infection in Children. Pediatric Neurosurgery, 1989, 15, 131-135.	0.7	24
124	The use of computed tomography-guided stereotactic techniques in the treatment of brain stem abscesses. Clinical Neurology and Neurosurgery, 1988, 90, 365-368.	1.4	21
125	Selective neuronal vulnerability to hypoxia in vitro. Neuroscience Letters, 1986, 67, 92-96.	2.1	58
126	Barbiturate protection against hypoxic neuronal damage in vitro. Journal of Neurosurgery, 1986, 65, 230-232.	1.6	20

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127	Hyperexcitability following moderate hypoxia in hippocampal tissue slices. Brain Research, 1985, 337, 337-340.	2.2	92
128	Glutamine can enhance synaptic transmission in hippocampal slices. Brain Research, 1985, 343, 366-369.	2.2	10
129	The effects of temperature on synaptic transmission in hippocampal tissue slices. Brain Research, 1985, 345, 279-284.	2.2	144
130	Overshoot of oxygen pressure in post-hypoxic brain tissue: a re-evaluation. Brain Research, 1985, 344, 150-153.	2.2	16
131	High Dose Barbiturate Therapy in Neurosurgery and Intensive Care. Neurosurgery, 1984, 15, 427-444.	1.1	123
132	Detecting Coupling in the Presence of Noise and Nonlinearity. , 0, , 265-282.		18
133	Global and Regional Congenital Cytomegalovirus (CMV) Epidemiology and Burden: Systematic Review and Meta-Analysis. SSRN Electronic Journal, 0, , .	0.4	1