Cameron C Mcintyre

List of Publications by Year
in descending order

125 papers	12,982 citations	28274 55 h-index	24982 109 g-index
133 all docs	133 docs citations	133 times ranked	7705 citing authors

#	Article	IF	Citations
1	Subthalamic deep brain stimulation affects heading perception in Parkinsonâ€™s disease. Journal of Neurology, 2022, 269, 253-268.	3.6	6
2	Patient-specific connectomic models correlate with, but do not reliably predict, outcomes in deep brain stimulation for obsessive-compulsive disorder. Neuropsychopharmacology, 2022, 47, 965-972.	5.4	22
3	Deep Brain Stimulation for Depression Informed by Intracranial Recordings. Biological Psychiatry, 2022, 92, 246-251.	1.3	58
4	Temporal Patterns of Spontaneous Fixational Eye Movements: The Influence of Basal Ganglia. Journal of Neuro-Ophthalmology, 2022, 42, 45-55.	0.8	3
5	Cingulum bundle connectivity in treatment-refractory compared to treatment-responsive patients with bipolar disorder and healthy controls: a tractography and surgical targeting analysis. Journal of Neurosurgery, 2022, 137, 709-721.	1.6	1
6	Subthalamic deep brain stimulation of an anatomically detailed model of the human hyperdirect pathway. Journal of Neurophysiology, 2022, 127, 1209-1220.	1.8	13
7	Imaging versus electrographic connectivity in human mood-related fronto-temporal networks. Brain Stimulation, 2022, 15, 554-565.	1.6	15
8	Stereotactic EEG Helps Define Networks and Optimize Stimulation Parameter Selection in DBS for Treatment-Resistant Depression (TRD).. Biological Psychiatry, 2022, 91, S43.	1.3	0
9	P372. Dual-Target Deep Brain Stimulation Drives Differential Engagement of Networks Underlying Treatment-Resistant Depression. Biological Psychiatry, 2022, 91, S237-S238.	1.3	0
10	Brain Imaging and Visualization Technologies to Identify Stimulation Targets. Biological Psychiatry, 2022, 91, S42.	1.3	0
11	Resistivity/Conductivity of Extracellular Medium. , 2022, , 3027-3031.		0
12	Computational Models of Deep Brain Stimulation (DBS). , 2022, , 883-886.		0
13	Levodopa Versus Dopamine Agonist after Subthalamic Stimulation in Parkinson's Disease. Movement Disorders, 2021, 36, 672-680.	3.9	8
14	Effects of subthalamic deep brain stimulation on fixational eye movements in Parkinsonâ€™s disease. Journal of Computational Neuroscience, 2021, 49, 345-356.	1.0	4
15	StimVision v2: Examples and Applications in Subthalamic Deep Brain Stimulation for Parkinsonâ€™s Disease. Neuromodulation, 2021, 24, 248-258.	0.8	36
16	DBS electrode localization and rotational orientation detection using SQUID-based magnetoencephalography. Journal of Neural Engineering, 2021, 18, 026021.	3.5	7
17	Connectomic Predictive Modeling Guides Selective Perturbation of Tracts in the Subcallosal Cingulate White Matter. , 2021, , .		1
18	Image-based biophysical modeling predicts cortical potentials evoked with subthalamic deep brain stimulation. Brain Stimulation, 2021, 14, 549-563.	1.6	23

#	Article	IF	Citations
19	Biophysical characterization of local field potential recordings from directional deep brain stimulation electrodes. Clinical Neurophysiology, 2021, 132, 1321-1329.	1.5	15
20	Histology-driven model of the macaque motor hyperdirect pathway. Brain Structure and Function, 2021, 226, 2087-2097.	2.3	5
21	Introduction. Virtual and augmented reality in neurosurgery: a timeline. Neurosurgical Focus, 2021, 51, E1.	2.3	14
22	Comparison of methodologies for modeling directional deep brain stimulation electrodes. PLoS ONE, 2021, 16, e0260162.	2.5	3
23	Clinical Evaluation of Cingulum Bundle Connectivity for Neurosurgical Hypothesis Development. Neurosurgery, 2020, 86, 724-735.	1.1	5
24	Biophysical reconstruction of the signal conduction underlying short-latency cortical evoked potentials generated by subthalamic deep brain stimulation. Clinical Neurophysiology, 2020, 131, 542-547.	1.5	19
25	Deep brain stimulation of terminating axons. Brain Stimulation, 2020, 13, 1863-1870.	1.6	32
26	Feasibility of Interferential and Pulsed Transcranial Electrical Stimulation for Neuromodulation at the Human Scale. Neuromodulation, 2020, 24, 843-853.	0.8	22
27	Connectivity-based identification of a potential neurosurgical target for mood disorders. Journal of Psychiatric Research, 2020, 125, 113-120.	3.1	7
28	Computational Models of Deep Brain Stimulation (DBS). , 2020, , 1-4.		0
29	Theoretical principles of deep brain stimulation induced synaptic suppression. Brain Stimulation, 2019, 12, 1402-1409.	1.6	31
30	Holographic Reconstruction of Axonal Pathways in the Human Brain. Neuron, 2019, 104, 1056-1064.e3.	8.1	91
31	Emerging technologies for improved deep brain stimulation. Nature Biotechnology, 2019, 37, 1024-1033.	17.5	164
32	Deep brain stimulation: current challenges and future directions. Nature Reviews Neurology, 2019, 15, 148-160.	10.1	721
33	Vestibular heading perception in Parkinson's disease. Progress in Brain Research, 2019, 249, 307-319.	1.4	13
34	33. Quantifying the Axonal Pathways Directly Stimulated in Therapeutic Subcallosal Cingulate Deep Brain Stimulation. Biological Psychiatry, 2019, 85, S14.	1.3	0
35	A Driving-Force Predictor for Estimating Pathway Activation in Patient-Specific Models of Deep Brain Stimulation. Neuromodulation, 2019, 22, 403-415.	0.8	28
36	Quantifying the axonal pathways directly stimulated in therapeutic subcallosal cingulate deep brain stimulation. Human Brain Mapping, 2019, 40, 889-903.	3.6	49

#	Article	IF	Citations
37	Characterization of the stimulus waveforms generated by implantable pulse generators for deep brain stimulation. Clinical Neurophysiology, 2018, 129, 731-742.	1.5	32
38	Quantifying axonal responses in patient-specific models of subthalamic deep brain stimulation. NeuroImage, 2018, 172, 263-277.	4.2	86
39	StimVision Software: Examples and Applications in Subcallosal Cingulate Deep Brain Stimulation for Depression. Neuromodulation, 2018, 21, 191-196.	0.8	63
40	Impact of brain shift on subcallosal cingulate deep brain stimulation. Brain Stimulation, 2018, 11, 445-453.	1.6	20
41	Action potential initiation, propagation, and cortical invasion in the hyperdirect pathway during subthalamic deep brain stimulation. Brain Stimulation, 2018, 11, 1140-1150.	1.6	63
42	Biophysical basis of subthalamic local field potentials recorded from deep brain stimulation electrodes. Journal of Neurophysiology, 2018, 120, 1932-1944.	1.8	28
43	Patient-Specific Modeling of Deep Brain Stimulation. , 2018, , 129-135.		1
44	Targeting of the Subthalamic Nucleus for Deep Brain Stimulation: A Survey Among Parkinson Disease Specialists. World Neurosurgery, 2017, 99, 41-46.	1.3	45
45	Role of Soft-Tissue Heterogeneity in Computational Models of Deep Brain Stimulation. Brain Stimulation, 2017, 10, 46-50.	1.6	68
46	Evolving Applications, Technological Challenges and Future Opportunities in Neuromodulation: Proceedings of the Fifth Annual Deep Brain Stimulation Think Tank. Frontiers in Neuroscience, 2017, 11, 734.	2.8	65
47	Creating and parameterizing patient-specific deep brain stimulation pathway-activation models using the hyperdirect pathway as an example. PLoS ONE, 2017, 12, e0176132.	2.5	96
48	Analyzing the tradeoff between electrical complexity and accuracy in patient-specific computational models of deep brain stimulation. Journal of Neural Engineering, 2016, 13, 036023.	3.5	56
49	Deep brain stimulation mechanisms: the control of network activity via neurochemistry modulation. Journal of Neurochemistry, 2016, 139, 338-345.	3.9	117
50	Computational Analysis of Kilohertz Frequency Spinal Cord Stimulation for Chronic Pain Management. Anesthesiology, 2015, 122, 1362-1376.	2.5	116
51	Short pulse width widens the therapeutic window of subthalamic neurostimulation. Annals of Clinical and Translational Neurology, 2015, 2, 427-432.	3.7	127
52	Machine Learning Approach to Optimizing Combined Stimulation and Medication Therapies for Parkinson's Disease. Brain Stimulation, 2015, 8, 1025-1032.	1.6	66
53	The Use of Stimulation Field Models for Deep Brain Stimulation Programming. Brain Stimulation, 2015, 8, 976-978.	1.6	10
54	Letter to the Editor: Correlation of diffusion tensor imaging and intraoperative macrostimulation. Journal of Neurosurgery, 2015, 123, 291-292.	1.6	3

#	Article	IF	Citations
55	Engineering the Next Generation of Clinical Deep Brain Stimulation Technology. Brain Stimulation, 2015, 8, 21-26.	1.6	56
56	Behavioral and neurophysiological evidence for the enhancement of cognitive control under dorsal pallidal deep brain stimulation in Huntingtonâ€™s disease. Brain Structure and Function, 2015, 220, 2441-2448.	2.3	33
57	Tractography Activation Patterns in Dorsolateral Prefrontal Cortex Suggest Better Clinical Responses in OCD DBS. Frontiers in Neuroscience, 2015, 9, 519.	2.8	56
58	Anatomical Targets Associated with Abrupt versus Gradual Washout of Subthalamic Deep Brain Stimulation Effects on Bradykinesia. PLoS ONE, 2014, 9, e99663.	2.5	21
59	Defining a therapeutic target for pallidal deep brain stimulation for dystonia. Annals of Neurology, 2014, 76, 22-30.	5.3	61
60	Defining Critical White Matter Pathways Mediating Successful Subcallosal Cingulate Deep Brain Stimulation for Treatment-Resistant Depression. Biological Psychiatry, 2014, 76, 963-969.	1.3	375
61	Fiber tractography of the axonal pathways linking the basal ganglia and cerebellum in Parkinson disease: implications for targeting in deep brain stimulation. Journal of Neurosurgery, 2014, 120, 988-996.	1.6	67
62	Resistivity/Conductivity of Extracellular Medium. , 2014, , 1-5.		0
63	Response. Journal of Neurosurgery, 2014, 121, 495.	1.6	0
64	Tractography-Activation Models Applied to Subcallosal Cingulate Deep Brain Stimulation. Brain Stimulation, 2013, 6, 737-739.	1.6	101
65	Theoretical principles underlying optical stimulation of myelinated axons expressing channelrhodopsin-2. Neuroscience, 2013, 248, 541-551.	2.3	29
66	Stimulation Region Within the Globus Pallidus Does Not Affect Verbal FluencyÂPerformance. Brain Stimulation, 2013, 6, 248-253.	1.6	19
67	Association of Deep Brain Stimulation Washout Effects With Parkinson Disease Duration. JAMA Neurology, 2013, 70, 95.	9.0	42
68	Computational modeling of deep brain stimulation. Handbook of Clinical Neurology / Edited By P J Vinken and G W Bruyn, 2013, 116, 55-61.	1.8	47
69	Artificial neural network based characterization of the volume of tissue activated during deep brain stimulation. Journal of Neural Engineering, 2013, 10, 056023.	3.5	104
70	Theoretical Analysis of the Local Field Potential in Deep Brain Stimulation Applications. PLoS ONE, 2013, 8, e59839.	2.5	93
71	Bimanual Force Coordination in Parkinsonâ€™s Disease Patients with Bilateral Subthalamic Deep Brain Stimulation. PLoS ONE, 2013, 8, e78934.	2.5	6
72	Neural targets for relieving parkinsonian rigidity and bradykinesia with pallidal deep brain stimulation. Journal of Neurophysiology, 2012, 108, 567-577.	1.8	49

#	Article	IF	Citations
73	Theoretical principles underlying optical stimulation of a channelrhodopsin-2 positive pyramidal neuron. Journal of Neurophysiology, 2012, 107, 3235-3245.	1.8	73
74	Current steering to activate targeted neural pathways during deep brain stimulation of the subthalamic region. Brain Stimulation, 2012, 5, 369-377.	1.6	78
75	Energy Efficient Neural Stimulation: Coupling Circuit Design and Membrane Biophysics. PLoS ONE, 2012, 7, e51901.	2.5	29
76	Axonal pathways linked to therapeutic and nontherapeutic outcomes during psychiatric deep brain stimulation. Human Brain Mapping, 2012, 33, 958-968.	3.6	59
77	Basal ganglia activity patterns in parkinsonism and computational modeling of their downstream effects. European Journal of Neuroscience, 2012, 36, 2213-2228.	2.6	101
78	Theoretical analysis of intracortical microelectrode recordings. Journal of Neural Engineering, 2011, 8, 045006.	3.5	98
79	Probabilistic analysis of activation volumes generated during deep brain stimulation. NeuroImage, 2011, 54, 2096-2104.	4.2	155
80	Dissociation of motor symptoms during deep brain stimulation of the subthalamic nucleus in the region of the internal capsule. Experimental Neurology, 2011, 228, 294-297.	4.1	37
81	Rules Ventral Prefrontal Cortical Axons Use to Reach Their Targets: Implications for Diffusion Tensor Imaging Tractography and Deep Brain Stimulation for Psychiatric Illness. Journal of Neuroscience, 2011, 31, 10392-10402.	3.6	167
82	Anatomical Connectivity Between Subcortical Structures. Brain Connectivity, 2011, 1, 111-118.	1.7	5
83	Modeling shifts in the rate and pattern of subthalamopallidal network activity during deep brain stimulation. Journal of Computational Neuroscience, 2010, 28, 425-441.	1.0	120
84	Network perspectives on the mechanisms of deep brain stimulation. Neurobiology of Disease, 2010, 38, 329-337.	4.4	400
85	Patient-specific models of deep brain stimulation: Influence of field model complexity on neural activation predictions. Brain Stimulation, 2010, 3, 65-77.	1.6	180
86	Evaluation of novel stimulus waveforms for deep brain stimulation. Journal of Neural Engineering, 2010, 7, 066008.	3.5	128
87	Reversing cognitiveâ€“motor impairments in Parkinsonâ€™s disease patients using a computational modelling approach to deep brain stimulation programming. Brain, 2010, 133, 746-761.	7.6	226
88	Current-controlled deep brain stimulation reduces in vivo voltage fluctuations observed during voltage-controlled stimulation. Clinical Neurophysiology, 2010, 121, 2128-2133.	1.5	111
89	In vivoimpedance spectroscopy of deep brain stimulation electrodes. Journal of Neural Engineering, 2009, 6, 046001.	3.5	194
90	Automated 3-Dimensional Brain Atlas Fitting to Microelectrode Recordings from Deep Brain Stimulation Surgeries. Stereotactic and Functional Neurosurgery, 2009, 87, 229-240.	1.5	28

#	Article	IF	Citations
91	Experimental and theoretical characterization of the voltage distribution generated by deep brain stimulation. Experimental Neurology, 2009, 216, 166-176.	4.1	153
92	Mechanisms and Targets of Deep Brain Stimulation in Movement Disorders. Neurotherapeutics, 2008, 5, 294-308.	4.4	258
93	Current steering to control the volume of tissue activated during deep brain stimulation. Brain Stimulation, 2008, 1, 7-15.	1.6	195
94	Chronic subdural electrodes in the management of epilepsy. Clinical Neurophysiology, 2008, 119, 11-28.	1.5	123
95	Quantifying the Neural Elements Activated and Inhibited by Globus Pallidus Deep Brain Stimulation. Journal of Neurophysiology, 2008, 100, 2549-2563.	1.8	117
96	Thalamocortical Relay Fidelity Varies Across Subthalamic Nucleus Deep Brain Stimulation Protocols in a Data-Driven Computational Model. Journal of Neurophysiology, 2008, 99, 1477-1492.	1.8	147
97	Tracking the mechanisms of deep brain stimulation for neuropsychiatric disorders. Frontiers in Bioscience - Landmark, 2008, Volume, 5892.	3.0	62
98	Differences among implanted pulse generator waveforms cause variations in the neural response to deep brain stimulation. Clinical Neurophysiology, 2007, 118, 1889-1894.	1.5	83
99	Patient-specific analysis of the volume of tissue activated during deep brain stimulation. NeuroImage, 2007, 34, 661-670.	4.2	438
100	Computational analysis of deep brain stimulation. Expert Review of Medical Devices, 2007, 4, 615-622.	2.8	54
101	Stereotactic neurosurgical planning, recording, and visualization for deep brain stimulation in non-human primates. Journal of Neuroscience Methods, 2007, 162, 32-41.	2.5	68
102	Cicerone: stereotactic neurophysiological recording and deep brain stimulation electrode placement software system. , 2007, 97, 561-567.		100
103	StimExplorer: deep brain stimulation parameter selection software system. , 2007, 97, 569-574.		20
104	Optimizing Deep Brain Stimulation Parameter Selection with Detailed Models of the Electrode-Tissue Interface. , 2006, 2006, 893-5.		35
105	Sources and effects of electrode impedance during deep brain stimulation. Clinical Neurophysiology, 2006, 117, 447-454.	1.5	315
106	Role of electrode design on the volume of tissue activated during deep brain stimulation. Journal of Neural Engineering, 2006, 3, 1-8.	3.5	257
107	Computational Analysis of Subthalamic Nucleus and Lenticular Fasciculus Activation During Therapeutic Deep Brain Stimulation. Journal of Neurophysiology, 2006, 96, 1569-1580.	1.8	284
108	Optimizing Deep Brain Stimulation Parameter Selection with Detailed Models of the Electrode-Tissue Interface. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0

#	Article	IF	Citations
109	Subthalamic Nucleus Deep Brain Stimulation: Accurate Axonal Threshold Prediction with Diffusion Tensor Based Electric Field Models. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
110	Optimization of Microelectrode Design for Cortical Recording Based on Thermal Noise Considerations. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2006, , .	0.5	0
111	Model-based analysis of cortical recording with silicon microelectrodes. Clinical Neurophysiology, 2005, 116, 2240-2250.	1.5	156
112	Tissue and electrode capacitance reduce neural activation volumes during deep brain stimulation. Clinical Neurophysiology, 2005, 116, 2490-2500.	1.5	283
113	Deep brain stimulation of the subthalamic nucleus: model-based analysis of the effects of electrode capacitance on the volume of activation. , 2005, , .		3
114	Cellular Effects of Deep Brain Stimulation: Model-Based Analysis of Activation and Inhibition. Journal of Neurophysiology, 2004, 91, 1457-1469.	1.8	716
115	Prediction of Myelinated Nerve Fiber Stimulation Thresholds: Limitations of Linear Models. IEEE Transactions on Biomedical Engineering, 2004, 51, 229-236.	4.2	53
116	Electric field and stimulating influence generated by deep brain stimulation of the subthalamic nucleus. Clinical Neurophysiology, 2004, 115, 589-595.	1.5	455
117	Uncovering the mechanism(s) of action of deep brain stimulation: activation, inhibition, or both. Clinical Neurophysiology, 2004, 115, 1239-1248.	1.5	653
118	How Does Deep Brain Stimulation Work? Present Understanding and Future Questions. Journal of Clinical Neurophysiology, 2004, 21, 40-50.	1.7	286
119	Modeling the Excitability of Mammalian Nerve Fibers: Influence of Afterpotentials on the Recovery Cycle. Journal of Neurophysiology, 2002, 87, 995-1006.	1.8	614
120	Extracellular Stimulation of Central Neurons: Influence of Stimulus Waveform and Frequency on Neuronal Output. Journal of Neurophysiology, 2002, 88, 1592-1604.	1.8	338
121	Uncovering the Mechanisms of Deep Brain Stimulation for Parkinson's Disease through Functional Imaging, Neural Recording, and Neural Modeling. Critical Reviews in Biomedical Engineering, 2002, 30, 249-282.	0.9	51
122	Finite Element Analysis of the Current-Density and Electric Field Generated by Metal Microelectrodes. Annals of Biomedical Engineering, 2001, 29, 227-235.	2.5	142
123	Selective Microstimulation of Central Nervous System Neurons. Annals of Biomedical Engineering, 2000, 28, 219-233.	2.5	211
124	Excitation of Central Nervous System Neurons by Nonuniform Electric Fields. Biophysical Journal, 1999, 76, 878-888.	0.5	296
125	Sensitivity analysis of a model of mammalian neural membrane. Biological Cybernetics, 1998, 79, 29-37.	1.3	43