

# Cameron C McIntyre

## List of Publications by Year in descending order

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125  
papers

12,982  
citations

28190

55  
h-index

24915

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 Parkinson's disease. <i>Journal of Neurology</i> , 2022, 269, 253-268.	1.8	6
2	Patient-specific connectomic models correlate with, but do not reliably predict, outcomes in deep brain stimulation for obsessive-compulsive disorder. <i>Neuropsychopharmacology</i> , 2022, 47, 965-972.	2.8	22
3	Deep Brain Stimulation for Depression Informed by Intracranial Recordings. <i>Biological Psychiatry</i> , 2022, 92, 246-251.	0.7	58
4	Temporal Patterns of Spontaneous Fixational Eye Movements: The Influence of Basal Ganglia. <i>Journal of Neuro-Ophthalmology</i> , 2022, 42, 45-55.	0.4	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. <i>Journal of Neurosurgery</i> , 2022, 137, 709-721.	0.9	1
6	Subthalamic deep brain stimulation of an anatomically detailed model of the human hyperdirect pathway. <i>Journal of Neurophysiology</i> , 2022, 127, 1209-1220.	0.9	13
7	Imaging versus electrographic connectivity in human mood-related fronto-temporal networks. <i>Brain Stimulation</i> , 2022, 15, 554-565.	0.7	15
8	Stereotactic EEG Helps Define Networks and Optimize Stimulation Parameter Selection in DBS for Treatment-Resistant Depression (TRD).. <i>Biological Psychiatry</i> , 2022, 91, S43.	0.7	0
9	P372. Dual-Target Deep Brain Stimulation Drives Differential Engagement of Networks Underlying Treatment-Resistant Depression. <i>Biological Psychiatry</i> , 2022, 91, S237-S238.	0.7	0
10	Brain Imaging and Visualization Technologies to Identify Stimulation Targets. <i>Biological Psychiatry</i> , 2022, 91, S42.	0.7	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. <i>Movement Disorders</i> , 2021, 36, 672-680.	2.2	8
14	Effects of subthalamic deep brain stimulation on fixational eye movements in Parkinson's disease. <i>Journal of Computational Neuroscience</i> , 2021, 49, 345-356.	0.6	4
15	StimVision v2: Examples and Applications in Subthalamic Deep Brain Stimulation for Parkinson's Disease. <i>Neuromodulation</i> , 2021, 24, 248-258.	0.4	36
16	DBS electrode localization and rotational orientation detection using SQUID-based magnetoencephalography. <i>Journal of Neural Engineering</i> , 2021, 18, 026021.	1.8	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. <i>Brain Stimulation</i> , 2021, 14, 549-563.	0.7	23

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19	Biophysical characterization of local field potential recordings from directional deep brain stimulation electrodes. <i>Clinical Neurophysiology</i> , 2021, 132, 1321-1329.	0.7	15
20	Histology-driven model of the macaque motor hyperdirect pathway. <i>Brain Structure and Function</i> , 2021, 226, 2087-2097.	1.2	5
21	Introduction. Virtual and augmented reality in neurosurgery: a timeline. <i>Neurosurgical Focus</i> , 2021, 51, E1.	1.0	14
22	Comparison of methodologies for modeling directional deep brain stimulation electrodes. <i>PLoS ONE</i> , 2021, 16, e0260162.	1.1	3
23	Clinical Evaluation of Cingulum Bundle Connectivity for Neurosurgical Hypothesis Development. <i>Neurosurgery</i> , 2020, 86, 724-735.	0.6	5
24	Biophysical reconstruction of the signal conduction underlying short-latency cortical evoked potentials generated by subthalamic deep brain stimulation. <i>Clinical Neurophysiology</i> , 2020, 131, 542-547.	0.7	19
25	Deep brain stimulation of terminating axons. <i>Brain Stimulation</i> , 2020, 13, 1863-1870.	0.7	32
26	Feasibility of Interferential and Pulsed Transcranial Electrical Stimulation for Neuromodulation at the Human Scale. <i>Neuromodulation</i> , 2020, 24, 843-853.	0.4	22
27	Connectivity-based identification of a potential neurosurgical target for mood disorders. <i>Journal of Psychiatric Research</i> , 2020, 125, 113-120.	1.5	7
28	Computational Models of Deep Brain Stimulation (DBS). , 2020, , 1-4.		0
29	Theoretical principles of deep brain stimulation induced synaptic suppression. <i>Brain Stimulation</i> , 2019, 12, 1402-1409.	0.7	31
30	Holographic Reconstruction of Axonal Pathways in the Human Brain. <i>Neuron</i> , 2019, 104, 1056-1064.e3.	3.8	91
31	Emerging technologies for improved deep brain stimulation. <i>Nature Biotechnology</i> , 2019, 37, 1024-1033.	9.4	164
32	Deep brain stimulation: current challenges and future directions. <i>Nature Reviews Neurology</i> , 2019, 15, 148-160.	4.9	721
33	Vestibular heading perception in Parkinson's disease. <i>Progress in Brain Research</i> , 2019, 249, 307-319.	0.9	13
34	33. Quantifying the Axonal Pathways Directly Stimulated in Therapeutic Subcallosal Cingulate Deep Brain Stimulation. <i>Biological Psychiatry</i> , 2019, 85, S14.	0.7	0
35	A Driving-Force Predictor for Estimating Pathway Activation in Patient-Specific Models of Deep Brain Stimulation. <i>Neuromodulation</i> , 2019, 22, 403-415.	0.4	28
36	Quantifying the axonal pathways directly stimulated in therapeutic subcallosal cingulate deep brain stimulation. <i>Human Brain Mapping</i> , 2019, 40, 889-903.	1.9	49

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37	Characterization of the stimulus waveforms generated by implantable pulse generators for deep brain stimulation. <i>Clinical Neurophysiology</i> , 2018, 129, 731-742.	0.7	32
38	Quantifying axonal responses in patient-specific models of subthalamic deep brain stimulation. <i>NeuroImage</i> , 2018, 172, 263-277.	2.1	86
39	StimVision Software: Examples and Applications in Subcallosal Cingulate Deep Brain Stimulation for Depression. <i>Neuromodulation</i> , 2018, 21, 191-196.	0.4	63
40	Impact of brain shift on subcallosal cingulate deep brain stimulation. <i>Brain Stimulation</i> , 2018, 11, 445-453.	0.7	20
41	Action potential initiation, propagation, and cortical invasion in the hyperdirect pathway during subthalamic deep brain stimulation. <i>Brain Stimulation</i> , 2018, 11, 1140-1150.	0.7	63
42	Biophysical basis of subthalamic local field potentials recorded from deep brain stimulation electrodes. <i>Journal of Neurophysiology</i> , 2018, 120, 1932-1944.	0.9	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. <i>World Neurosurgery</i> , 2017, 99, 41-46.	0.7	45
45	Role of Soft-Tissue Heterogeneity in Computational Models of Deep Brain Stimulation. <i>Brain Stimulation</i> , 2017, 10, 46-50.	0.7	68
46	Evolving Applications, Technological Challenges and Future Opportunities in Neuromodulation: Proceedings of the Fifth Annual Deep Brain Stimulation Think Tank. <i>Frontiers in Neuroscience</i> , 2017, 11, 734.	1.4	65
47	Creating and parameterizing patient-specific deep brain stimulation pathway-activation models using the hyperdirect pathway as an example. <i>PLoS ONE</i> , 2017, 12, e0176132.	1.1	96
48	Analyzing the tradeoff between electrical complexity and accuracy in patient-specific computational models of deep brain stimulation. <i>Journal of Neural Engineering</i> , 2016, 13, 036023.	1.8	56
49	Deep brain stimulation mechanisms: the control of network activity via neurochemistry modulation. <i>Journal of Neurochemistry</i> , 2016, 139, 338-345.	2.1	117
50	Computational Analysis of Kilohertz Frequency Spinal Cord Stimulation for Chronic Pain Management. <i>Anesthesiology</i> , 2015, 122, 1362-1376.	1.3	116
51	Short pulse width widens the therapeutic window of subthalamic neurostimulation. <i>Annals of Clinical and Translational Neurology</i> , 2015, 2, 427-432.	1.7	127
52	Machine Learning Approach to Optimizing Combined Stimulation and Medication Therapies for Parkinson's Disease. <i>Brain Stimulation</i> , 2015, 8, 1025-1032.	0.7	66
53	The Use of Stimulation Field Models for Deep Brain Stimulation Programming. <i>Brain Stimulation</i> , 2015, 8, 976-978.	0.7	10
54	Letter to the Editor: Correlation of diffusion tensor imaging and intraoperative macrostimulation. <i>Journal of Neurosurgery</i> , 2015, 123, 291-292.	0.9	3

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55	Engineering the Next Generation of Clinical Deep Brain Stimulation Technology. <i>Brain Stimulation</i> , 2015, 8, 21-26.	0.7	56
56	Behavioral and neurophysiological evidence for the enhancement of cognitive control under dorsal pallidal deep brain stimulation in Huntington's disease. <i>Brain Structure and Function</i> , 2015, 220, 2441-2448.	1.2	33
57	Tractography Activation Patterns in Dorsolateral Prefrontal Cortex Suggest Better Clinical Responses in OCD DBS. <i>Frontiers in Neuroscience</i> , 2015, 9, 519.	1.4	56
58	Anatomical Targets Associated with Abrupt versus Gradual Washout of Subthalamic Deep Brain Stimulation Effects on Bradykinesia. <i>PLoS ONE</i> , 2014, 9, e99663.	1.1	21
59	Defining a therapeutic target for pallidal deep brain stimulation for dystonia. <i>Annals of Neurology</i> , 2014, 76, 22-30.	2.8	61
60	Defining Critical White Matter Pathways Mediating Successful Subcallosal Cingulate Deep Brain Stimulation for Treatment-Resistant Depression. <i>Biological Psychiatry</i> , 2014, 76, 963-969.	0.7	375
61	Fiber tractography of the axonal pathways linking the basal ganglia and cerebellum in Parkinson disease: implications for targeting in deep brain stimulation. <i>Journal of Neurosurgery</i> , 2014, 120, 988-996.	0.9	67
62	Resistivity/Conductivity of Extracellular Medium. , 2014, , 1-5.		0
63	Response. <i>Journal of Neurosurgery</i> , 2014, 121, 495.	0.9	0
64	Tractography-Activation Models Applied to Subcallosal Cingulate Deep Brain Stimulation. <i>Brain Stimulation</i> , 2013, 6, 737-739.	0.7	101
65	Theoretical principles underlying optical stimulation of myelinated axons expressing channelrhodopsin-2. <i>Neuroscience</i> , 2013, 248, 541-551.	1.1	29
66	Stimulation Region Within the Globus Pallidus Does Not Affect Verbal Fluency Performance. <i>Brain Stimulation</i> , 2013, 6, 248-253.	0.7	19
67	Association of Deep Brain Stimulation Washout Effects With Parkinson Disease Duration. <i>JAMA Neurology</i> , 2013, 70, 95.	4.5	42
68	Computational modeling of deep brain stimulation. <i>Handbook of Clinical Neurology</i> / Edited By P J Vinken and G W Bruyn, 2013, 116, 55-61.	1.0	47
69	Artificial neural network based characterization of the volume of tissue activated during deep brain stimulation. <i>Journal of Neural Engineering</i> , 2013, 10, 056023.	1.8	104
70	Theoretical Analysis of the Local Field Potential in Deep Brain Stimulation Applications. <i>PLoS ONE</i> , 2013, 8, e59839.	1.1	93
71	Bimanual Force Coordination in Parkinson's Disease Patients with Bilateral Subthalamic Deep Brain Stimulation. <i>PLoS ONE</i> , 2013, 8, e78934.	1.1	6
72	Neural targets for relieving parkinsonian rigidity and bradykinesia with pallidal deep brain stimulation. <i>Journal of Neurophysiology</i> , 2012, 108, 567-577.	0.9	49

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73	Theoretical principles underlying optical stimulation of a channelrhodopsin-2 positive pyramidal neuron. <i>Journal of Neurophysiology</i> , 2012, 107, 3235-3245.	0.9	73
74	Current steering to activate targeted neural pathways during deep brain stimulation of the subthalamic region. <i>Brain Stimulation</i> , 2012, 5, 369-377.	0.7	78
75	Energy Efficient Neural Stimulation: Coupling Circuit Design and Membrane Biophysics. <i>PLoS ONE</i> , 2012, 7, e51901.	1.1	29
76	Axonal pathways linked to therapeutic and nontherapeutic outcomes during psychiatric deep brain stimulation. <i>Human Brain Mapping</i> , 2012, 33, 958-968.	1.9	59
77	Basal ganglia activity patterns in parkinsonism and computational modeling of their downstream effects. <i>European Journal of Neuroscience</i> , 2012, 36, 2213-2228.	1.2	101
78	Theoretical analysis of intracortical microelectrode recordings. <i>Journal of Neural Engineering</i> , 2011, 8, 045006.	1.8	98
79	Probabilistic analysis of activation volumes generated during deep brain stimulation. <i>NeuroImage</i> , 2011, 54, 2096-2104.	2.1	155
80	Dissociation of motor symptoms during deep brain stimulation of the subthalamic nucleus in the region of the internal capsule. <i>Experimental Neurology</i> , 2011, 228, 294-297.	2.0	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. <i>Journal of Neuroscience</i> , 2011, 31, 10392-10402.	1.7	167
82	Anatomical Connectivity Between Subcortical Structures. <i>Brain Connectivity</i> , 2011, 1, 111-118.	0.8	5
83	Modeling shifts in the rate and pattern of subthalamopallidal network activity during deep brain stimulation. <i>Journal of Computational Neuroscience</i> , 2010, 28, 425-441.	0.6	120
84	Network perspectives on the mechanisms of deep brain stimulation. <i>Neurobiology of Disease</i> , 2010, 38, 329-337.	2.1	400
85	Patient-specific models of deep brain stimulation: Influence of field model complexity on neural activation predictions. <i>Brain Stimulation</i> , 2010, 3, 65-77.	0.7	180
86	Evaluation of novel stimulus waveforms for deep brain stimulation. <i>Journal of Neural Engineering</i> , 2010, 7, 066008.	1.8	128
87	Reversing cognitiveâ€“motor impairments in Parkinsonâ€™s disease patients using a computational modelling approach to deep brain stimulation programming. <i>Brain</i> , 2010, 133, 746-761.	3.7	226
88	Current-controlled deep brain stimulation reduces in vivo voltage fluctuations observed during voltage-controlled stimulation. <i>Clinical Neurophysiology</i> , 2010, 121, 2128-2133.	0.7	111
89	<i>In vivo</i> impedance spectroscopy of deep brain stimulation electrodes. <i>Journal of Neural Engineering</i> , 2009, 6, 046001.	1.8	194
90	Automated 3-Dimensional Brain Atlas Fitting to Microelectrode Recordings from Deep Brain Stimulation Surgeries. <i>Stereotactic and Functional Neurosurgery</i> , 2009, 87, 229-240.	0.8	28

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91	Experimental and theoretical characterization of the voltage distribution generated by deep brain stimulation. <i>Experimental Neurology</i> , 2009, 216, 166-176.	2.0	153
92	Mechanisms and Targets of Deep Brain Stimulation in Movement Disorders. <i>Neurotherapeutics</i> , 2008, 5, 294-308.	2.1	258
93	Current steering to control the volume of tissue activated during deep brain stimulation. <i>Brain Stimulation</i> , 2008, 1, 7-15.	0.7	195
94	Chronic subdural electrodes in the management of epilepsy. <i>Clinical Neurophysiology</i> , 2008, 119, 11-28.	0.7	123
95	Quantifying the Neural Elements Activated and Inhibited by Globus Pallidus Deep Brain Stimulation. <i>Journal of Neurophysiology</i> , 2008, 100, 2549-2563.	0.9	117
96	Thalamocortical Relay Fidelity Varies Across Subthalamic Nucleus Deep Brain Stimulation Protocols in a Data-Driven Computational Model. <i>Journal of Neurophysiology</i> , 2008, 99, 1477-1492.	0.9	147
97	Tracking the mechanisms of deep brain stimulation for neuropsychiatric disorders. <i>Frontiers in Bioscience - Landmark</i> , 2008, Volume, 5892.	3.0	62
98	Differences among implanted pulse generator waveforms cause variations in the neural response to deep brain stimulation. <i>Clinical Neurophysiology</i> , 2007, 118, 1889-1894.	0.7	83
99	Patient-specific analysis of the volume of tissue activated during deep brain stimulation. <i>NeuroImage</i> , 2007, 34, 661-670.	2.1	438
100	Computational analysis of deep brain stimulation. <i>Expert Review of Medical Devices</i> , 2007, 4, 615-622.	1.4	54
101	Stereotactic neurosurgical planning, recording, and visualization for deep brain stimulation in non-human primates. <i>Journal of Neuroscience Methods</i> , 2007, 162, 32-41.	1.3	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. <i>Clinical Neurophysiology</i> , 2006, 117, 447-454.	0.7	315
106	Role of electrode design on the volume of tissue activated during deep brain stimulation. <i>Journal of Neural Engineering</i> , 2006, 3, 1-8.	1.8	257
107	Computational Analysis of Subthalamic Nucleus and Lenticular Fasciculus Activation During Therapeutic Deep Brain Stimulation. <i>Journal of Neurophysiology</i> , 2006, 96, 1569-1580.	0.9	284
108	Optimizing Deep Brain Stimulation Parameter Selection with Detailed Models of the Electrode-Tissue Interface. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society</i> , 2006, , .	0.5	0

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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.	0.7	156
112	Tissue and electrode capacitance reduce neural activation volumes during deep brain stimulation. Clinical Neurophysiology, 2005, 116, 2490-2500.	0.7	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.	0.9	716
115	Prediction of Myelinated Nerve Fiber Stimulation Thresholds: Limitations of Linear Models. IEEE Transactions on Biomedical Engineering, 2004, 51, 229-236.	2.5	53
116	Electric field and stimulating influence generated by deep brain stimulation of the subthalamic nucleus. Clinical Neurophysiology, 2004, 115, 589-595.	0.7	455
117	Uncovering the mechanism(s) of action of deep brain stimulation: activation, inhibition, or both. Clinical Neurophysiology, 2004, 115, 1239-1248.	0.7	653
118	How Does Deep Brain Stimulation Work? Present Understanding and Future Questions. Journal of Clinical Neurophysiology, 2004, 21, 40-50.	0.9	286
119	Modeling the Excitability of Mammalian Nerve Fibers: Influence of Afterpotentials on the Recovery Cycle. Journal of Neurophysiology, 2002, 87, 995-1006.	0.9	614
120	Extracellular Stimulation of Central Neurons: Influence of Stimulus Waveform and Frequency on Neuronal Output. Journal of Neurophysiology, 2002, 88, 1592-1604.	0.9	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.	0.5	51
122	Finite Element Analysis of the Current-Density and Electric Field Generated by Metal Microelectrodes. Annals of Biomedical Engineering, 2001, 29, 227-235.	1.3	142
123	Selective Microstimulation of Central Nervous System Neurons. Annals of Biomedical Engineering, 2000, 28, 219-233.	1.3	211
124	Excitation of Central Nervous System Neurons by Nonuniform Electric Fields. Biophysical Journal, 1999, 76, 878-888.	0.2	296
125	Sensitivity analysis of a model of mammalian neural membrane. Biological Cybernetics, 1998, 79, 29-37.	0.6	43