

# Peter E Konrad

## List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

126  
papers

3,191  
citations

32  
h-index

52  
g-index

134  
ext. papers

3,748  
ext. citations

3.1  
avg. IF

4.94  
L-index

#	Paper	IF	Citations
126	Biophysical mechanisms of transient optical stimulation of peripheral nerve. <i>Biophysical Journal</i> , <b>2007</b> , 93, 2567-80	2.9	291
125	Optical stimulation of neural tissue in vivo. <i>Optics Letters</i> , <b>2005</b> , 30, 504-6	3	223
124	Application of infrared light for in vivo neural stimulation. <i>Journal of Biomedical Optics</i> , <b>2005</b> , 10, 064003, 5	3.5	178
123	Pulsed laser versus electrical energy for peripheral nerve stimulation. <i>Journal of Neuroscience Methods</i> , <b>2007</b> , 163, 326-37	3	123
122	Regional and global connectivity disturbances in focal epilepsy, related neurocognitive sequelae, and potential mechanistic underpinnings. <i>Epilepsia</i> , <b>2016</b> , 57, 1546-1557	6.4	106
121	Subthalamic nucleus deep brain stimulation in early stage Parkinson's disease. <i>Parkinsonism and Related Disorders</i> , <b>2014</b> , 20, 731-7	3.6	90
120	Optically mediated nerve stimulation: Identification of injury thresholds. <i>Lasers in Surgery and Medicine</i> , <b>2007</b> , 39, 513-26	3.6	87
119	Computer-aided placement of deep brain stimulators: from planning to intraoperative guidance. <i>IEEE Transactions on Medical Imaging</i> , <b>2005</b> , 24, 1469-78	11.7	77
118	CranialVault and its CRAVE tools: a clinical computer assistance system for deep brain stimulation (DBS) therapy. <i>Medical Image Analysis</i> , <b>2012</b> , 16, 744-53	15.4	71
117	Correlation of motor-evoked potential response to ischemic spinal cord damage. <i>Journal of Thoracic and Cardiovascular Surgery</i> , <b>1992</b> , 104, 262-272	1.5	68
116	Effects of surgical targeting in laser interstitial thermal therapy for mesial temporal lobe epilepsy: A multicenter study of 234 patients. <i>Epilepsia</i> , <b>2019</b> , 60, 1171-1183	6.4	65
115	Accuracy of customized miniature stereotactic platforms. <i>Stereotactic and Functional Neurosurgery</i> , <b>2005</b> , 83, 25-31	1.6	63
114	Customized, miniature rapid-prototype stereotactic frames for use in deep brain stimulator surgery: initial clinical methodology and experience from 263 patients from 2002 to 2008. <i>Stereotactic and Functional Neurosurgery</i> , <b>2011</b> , 89, 34-41	1.6	59
113	Surgical targets for dystonic tremor: considerations between the globus pallidus and ventral intermediate thalamic nucleus. <i>Parkinsonism and Related Disorders</i> , <b>2013</b> , 19, 684-6	3.6	53
112	Clinical accuracy of a customized stereotactic platform for deep brain stimulation after accounting for brain shift. <i>Stereotactic and Functional Neurosurgery</i> , <b>2010</b> , 88, 81-7	1.6	53
111	Combined optical and electrical stimulation of neural tissue in vivo. <i>Journal of Biomedical Optics</i> , <b>2009</b> , 14, 060501	3.5	53
110	Effect of brain shift on the creation of functional atlases for deep brain stimulation surgery. <i>International Journal of Computer Assisted Radiology and Surgery</i> , <b>2010</b> , 5, 221-8	3.9	53

109	Best Practices for Intrathecal Baclofen Therapy: Troubleshooting. <i>Neuromodulation</i> , <b>2016</b> , 19, 632-41	3.1	52
108	Postmortem analysis following 71 months of deep brain stimulation of the subthalamic nucleus for Parkinson disease. <i>Journal of Neurosurgery</i> , <b>2008</b> , 109, 325-9	3.2	45
107	Neuromodulation of the cingulum for neuropathic pain after spinal cord injury. Case report. <i>Journal of Neurosurgery</i> , <b>2007</b> , 107, 169-72	3.2	44
106	Deep brain stimulation in early stage Parkinson's disease: operative experience from a prospective randomised clinical trial. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2012</b> , 83, 164-70	5.5	43
105	Functional connectivity disturbances of the ascending reticular activating system in temporal lobe epilepsy. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2017</b> , 88, 925-932	5.5	42
104	Subthalamic nucleus neuronal firing rate increases with Parkinson's disease progression. <i>Movement Disorders</i> , <b>2011</b> , 26, 1657-62	7	41
103	Effects of deep brain stimulation on rest tremor progression in early stage Parkinson disease. <i>Neurology</i> , <b>2018</b> , 91, e463-e471	6.5	38
102	Deep brain stimulation may reduce the relative risk of clinically important worsening in early stage Parkinson's disease. <i>Parkinsonism and Related Disorders</i> , <b>2015</b> , 21, 1177-83	3.6	36
101	The factors involved in deep brain stimulation infection: a large case series. <i>Stereotactic and Functional Neurosurgery</i> , <b>2014</b> , 92, 227-33	1.6	35
100	Seizure freedom off antiepileptic drugs after temporal lobe epilepsy surgery. <i>Seizure: the Journal of the British Epilepsy Association</i> , <b>2007</b> , 16, 95-8	3.2	35
99	Implantable brain computer interface: challenges to neurotechnology translation. <i>Neurobiology of Disease</i> , <b>2010</b> , 38, 369-75	7.5	34
98	Is deep brain stimulation neuroprotective if applied early in the course of PD?. <i>Nature Clinical Practice Neurology</i> , <b>2008</b> , 4, 424-6		34
97	Relating structural and functional brainstem connectivity to disease measures in epilepsy. <i>Neurology</i> , <b>2018</b> , 91, e67-e77	6.5	34
96	Deep brain stimulation of the subthalamic nucleus reduces antiparkinsonian medication costs. <i>Parkinsonism and Related Disorders</i> , <b>2004</b> , 10, 475-9	3.6	32
95	Deep brain stimulation in early-stage Parkinson disease: Five-year outcomes. <i>Neurology</i> , <b>2020</b> , 95, e393-e401	6.9	29
94	Intersurgeon variability in the selection of anterior and posterior commissures and its potential effects on target localization. <i>Stereotactic and Functional Neurosurgery</i> , <b>2008</b> , 86, 113-9	1.6	29
93	Confined stimulation using dual thalamic deep brain stimulation leads rescues refractory essential tremor: report of three cases. <i>Stereotactic and Functional Neurosurgery</i> , <b>2009</b> , 87, 309-13	1.6	27
92	Infrared Neural Stimulation of Thalamocortical Brain Slices. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , <b>2010</b> , 16, 565-572	3.8	26

91	Alteration of GABAergic neurotransmission by pulsed infrared laser stimulation. <i>Journal of Neuroscience Methods</i> , <b>2010</b> , 192, 110-4	3	25
90	Experience with 25 years of dorsal root entry zone lesioning at a single institution. <i>Surgical Neurology International</i> , <b>2013</b> , 4, 64	1	24
89	Infrared neural stimulation of human spinal nerve roots in vivo. <i>Neurophotonics</i> , <b>2015</b> , 2, 015007	3.9	22
88	Frontal Localization of Absence Seizures Demonstrated by Ictal Positron Emission Tomography. <i>Epilepsy and Behavior</i> , <b>2001</b> , 2, 54-60	3.2	22
87	Variations in Thalamic Anatomy Affect Targeting in Deep Brain Stimulation for Epilepsy. <i>Stereotactic and Functional Neurosurgery</i> , <b>2016</b> , 94, 387-396	1.6	21
86	Fully automated targeting using nonrigid image registration matches accuracy and exceeds precision of best manual approaches to subthalamic deep brain stimulation targeting in Parkinson disease. <i>Neurosurgery</i> , <b>2015</b> , 76, 756-65	3.2	21
85	Neuro-oncological applications of optical spectroscopy. <i>Technology in Cancer Research and Treatment</i> , <b>2006</b> , 5, 231-8	2.7	21
84	White matter differences between essential tremor and Parkinson disease. <i>Neurology</i> , <b>2019</b> , 92, e30-e396.5		21
83	Emotion recognition in early Parkinson's disease patients undergoing deep brain stimulation or dopaminergic therapy: a comparison to healthy participants. <i>Frontiers in Aging Neuroscience</i> , <b>2014</b> , 6, 349	5.3	20
82	Treating post-traumatic tremor with deep brain stimulation: report of five cases. <i>Parkinsonism and Related Disorders</i> , <b>2013</b> , 19, 1100-5	3.6	20
81	Suprathreshold brain stimulation activates non-corticospinal motor evoked potentials in cats. <i>Brain Research</i> , <b>1990</b> , 522, 14-29	3.7	20
80	CranialCloud: a cloud-based architecture to support trans-institutional collaborative efforts in neurodegenerative disorders. <i>International Journal of Computer Assisted Radiology and Surgery</i> , <b>2015</b> , 10, 815-23	3.9	19
79	Intrathecal Drug Delivery Systems (IDDS): The Implantable Systems Performance Registry (ISPR). <i>Neuromodulation</i> , <b>2016</b> , 19, 848-856	3.1	19
78	Subthalamic Nucleus Deep Brain Stimulation May Reduce Medication Costs in Early Stage Parkinson's Disease. <i>Journal of Parkinson's Disease</i> , <b>2016</b> , 6, 125-31	5.3	19
77	Dorsal root entry zone lesion, midline myelotomy and anterolateral cordotomy. <i>Neurosurgery Clinics of North America</i> , <b>2014</b> , 25, 699-722	4	18
76	Multisurgeon, multisite validation of a trajectory planning algorithm for deep brain stimulation procedures. <i>IEEE Transactions on Biomedical Engineering</i> , <b>2014</b> , 61, 2479-87	5	18
75	Neuropsychological effects of deep brain stimulation in subjects with early stage Parkinson's disease in a randomized clinical trial. <i>Journal of Parkinson's Disease</i> , <b>2015</b> , 5, 151-63	5.3	17
74	Validation of a fully automatic method for the routine selection of the anterior and posterior commissures in magnetic resonance images. <i>Stereotactic and Functional Neurosurgery</i> , <b>2009</b> , 87, 148-54	1.6	17

73	Delayed occurrence of multiple spinal drop metastases from a posterior fossa choroid plexus papilloma. Case report. <i>Journal of Neurosurgery: Spine</i> , <b>2006</b> , 4, 494-6	2.8	17
72	Decreased Rate of CSF Leakage Associated with Complete Reconstruction of Suboccipital Cranial Defects. <i>Journal of Neurological Surgery, Part B: Skull Base</i> , <b>2012</b> , 73, 281-6	1.5	16
71	Automatic selection of DBS target points using multiple electrophysiological atlases. <i>Lecture Notes in Computer Science</i> , <b>2005</b> , 8, 427-34	0.9	16
70	Stereotactic EEG via multiple single-path omnidirectional trajectories within a single platform: institutional experience with a novel technique. <i>Journal of Neurosurgery</i> , <b>2018</b> , 129, 1173-1181	3.2	15
69	Neurovascular Compression at the Root Entry Zone Correlates with Trigeminal Neuralgia and Early Microvascular Decompression Outcome. <i>World Neurosurgery</i> , <b>2016</b> , 95, 208-213	2.1	14
68	Pilot study assessing the feasibility of applying bilateral subthalamic nucleus deep brain stimulation in very early stage Parkinson's disease: study design and rationale. <i>Journal of Parkinson's Disease</i> , <b>2012</b> , 2, 215-23	5.3	14
67	The optimal pallidal target in deep brain stimulation for dystonia: a study using a functional atlas based on nonlinear image registration. <i>Stereotactic and Functional Neurosurgery</i> , <b>2015</b> , 93, 17-24	1.6	13
66	Methods for Surgical Targeting of the STN in Early-Stage Parkinson's Disease. <i>Frontiers in Neurology</i> , <b>2014</b> , 5, 25	4.1	13
65	A new method for creating electrophysiological maps for DBS surgery and their application to surgical guidance. <i>Lecture Notes in Computer Science</i> , <b>2008</b> , 11, 670-7	0.9	13
64	Effect of data normalization on the creation of neuro-probabilistic atlases. <i>Stereotactic and Functional Neurosurgery</i> , <b>2013</b> , 91, 148-52	1.6	12
63	No increased herniation of the cerebellar tonsils in a group of patients with orthostatic intolerance. <i>Clinical Autonomic Research</i> , <b>2002</b> , 12, 472-6	4.3	12
62	The Effects of Dexmedetomidine on Microelectrode Recordings of the Subthalamic Nucleus during Deep Brain Stimulation Surgery: A Retrospective Analysis. <i>Stereotactic and Functional Neurosurgery</i> , <b>2017</b> , 95, 40-48	1.6	12
61	Potential subjects' responses to an ethics questionnaire in a phase I study of deep brain stimulation in early Parkinson's disease. <i>Journal of Clinical Ethics</i> , <b>2012</b> , 23, 207-16	0.6	12
60	Ultrasound-guided spinal stereotactic system for intraspinal implants. <i>Journal of Neurosurgery: Spine</i> , <b>2018</b> , 29, 292-305	2.8	11
59	Intrathecal Baclofen for Severe Spasticity: Longitudinal Data From the Product Surveillance Registry. <i>Neuromodulation</i> , <b>2020</b> , 23, 996-1002	3.1	10
58	A surgeon specific automatic path planning algorithm for deep brain stimulation <b>2012</b> ,		10
57	Clinical testing of an alternate method of inserting bone-implanted fiducial markers. <i>International Journal of Computer Assisted Radiology and Surgery</i> , <b>2014</b> , 9, 913-20	3.9	9
56	Low-dose stereotactic radiosurgery is inadequate for medically intractable mesial temporal lobe epilepsy: a case report. <i>Seizure: the Journal of the British Epilepsy Association</i> , <b>2001</b> , 10, 442-6	3.2	9

55	Microvascular Decompression for Trigeminal Neuralgia in Patients with Multiple Sclerosis: Predictors of Treatment Success. <i>World Neurosurgery</i> , <b>2020</b> , 136, e165-e170	2.1	9
54	Temporal lobe origin is common in patients who have undergone epilepsy surgery for hypermotor seizures. <i>Epilepsy and Behavior</i> , <b>2016</b> , 64, 57-61	3.2	8
53	Deep brain stimulation in early stage Parkinson's disease. <i>Parkinsonism and Related Disorders</i> , <b>2015</b> , 21, 347-8	3.6	8
52	Spasticity treatment facilitates direct care delivery for adults with profound intellectual disability. <i>Movement Disorders</i> , <b>2010</b> , 25, 466-73	7	8
51	Toward the Creation of an Electrophysiological Atlas for the Pre-operative Planning and Intra-operative Guidance of Deep Brain Stimulators (DBS) Implantation. <i>Lecture Notes in Computer Science</i> , <b>2004</b> , 729-736	0.9	8
50	Towards Machine Learning Prediction of Deep Brain Stimulation (DBS) Intra-operative Efficacy Maps. <i>Proceedings of SPIE</i> , <b>2019</b> , 10949,	1.7	8
49	Structural Correlates of the Sensorimotor Cerebellum in Parkinson's Disease and Essential Tremor. <i>Movement Disorders</i> , <b>2020</b> , 35, 1181-1188	7	7
48	Deep brain stimulation of the subthalamic nucleus alters frontal activity during spatial working memory maintenance of patients with Parkinson's disease. <i>Neurocase</i> , <b>2016</b> , 22, 369-78	0.8	7
47	Subthalamic Nucleus Deep Brain Stimulation Alters Prefrontal Correlates of Emotion Induction. <i>Neuromodulation</i> , <b>2017</b> , 20, 233-237	3.1	7
46	Deep brain stimulation for early-stage Parkinson's disease: an illustrative case. <i>Neuromodulation</i> , <b>2011</b> , 14, 515-21; discussion 521-2	3.1	7
45	Ventricular width and complicated recovery following deep brain stimulation surgery. <i>Stereotactic and Functional Neurosurgery</i> , <b>2012</b> , 90, 167-72	1.6	7
44	Deep brain stimulation for Parkinson's disease: the Vanderbilt University Medical Center experience, 1998-2004. <i>Tennessee Medicine: Journal of the Tennessee Medical Association</i> , <b>2007</b> , 100, 45-7		7
43	Microvascular decompression: salient surgical principles and technical nuances. <i>Journal of Visualized Experiments</i> , <b>2011</b> , e2590	1.6	6
42	Suppression of thalamocortical oscillations following traumatic brain injury in rats. <i>Journal of Neurosurgery</i> , <b>2012</b> , 117, 316-23	3.2	6
41	Biophysical mechanisms responsible for pulsed low-level laser excitation of neural tissue <b>2006</b> ,		6
40	Magnetic stimulation of the spine to produce lower extremity EMG responses. Significance of coil position and the presence of bone. <i>Spine</i> , <b>1994</b> , 19, 2812-8	3.3	5
39	Computerized Atlas-Guided Positioning of Deep Brain Stimulators: A Feasibility Study. <i>Lecture Notes in Computer Science</i> , <b>2003</b> , 142-150	0.9	5
38	Role of the Nucleus Basalis as a Key Network Node in Temporal Lobe Epilepsy. <i>Neurology</i> , <b>2021</b> , 96, e1334-e1346	3.4	5

37	Confined Thalamic Deep Brain Stimulation in Refractory Essential Tremor. <i>Stereotactic and Functional Neurosurgery</i> , <b>2018</b> , 96, 296-304	1.6	5
36	Preliminary results of deferoxamine and L1 treatment of spinal cord ischemia. <i>Journal of Thoracic and Cardiovascular Surgery</i> , <b>1995</b> , 109, 1017-9	1.5	4
35	Prediction of viral symptoms using wearable technology and artificial intelligence: A pilot study in healthcare workers. <i>PLoS ONE</i> , <b>2021</b> , 16, e0257997	3.7	4
34	An Integrated Multi-physics Finite Element Modeling Framework for Deep Brain Stimulation: Preliminary Study on Impact of Brain Shift on Neuronal Pathways. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 682-690	0.9	4
33	Deformable Physiological Atlas-Based Programming of Deep Brain Stimulators: A Feasibility Study. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 144-150	0.9	4
32	Deep Brain Stimulation for Treatment of Tremor. <i>Neurosurgery Clinics of North America</i> , <b>2019</b> , 30, 147-159		3
31	Spinal Cord Stimulation (SCS)-The Implantable Systems Performance Registry (ISPR). <i>Neuromodulation</i> , <b>2016</b> , 19, 857-863	3.1	3
30	Novel Technique for Insertion of Cervical Spinal Cord Stimulator Percutaneous Leads: Technical Note and Institutional Experience. <i>World Neurosurgery</i> , <b>2018</b> , 119, 118-122	2.1	3
29	Imaging optically induced neural activity in the brain. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2010</b> , 2010, 3379-81	0.9	3
28	<b>2010</b> ,		3
27	Depression and intelligence in patients with Parkinson's disease and deep-brain stimulation. <i>Journal of the National Medical Association</i> , <b>2006</b> , 98, 1121-5	2.3	3
26	A method to correct for brain shift when building electrophysiological atlases for deep brain stimulation (DBS) surgery. <i>Lecture Notes in Computer Science</i> , <b>2009</b> , 12, 557-64	0.9	3
25	Changes in neuronal firing rate in the subthalamic nucleus with Parkinson's disease. <i>Movement Disorders</i> , <b>2012</b> , 27, 455-456	7	2
24	Infrared Nerve Stimulation: A Novel Therapeutic Laser Modality <b>2010</b> , 915-939		2
23	Detecting brain shift during deep brain stimulation surgery using intra-operative data and functional atlases: A preliminary study <b>2009</b> ,		2
22	Automated selection of anterior and posterior commissures based on a deformable atlas and its evaluation based on manual selections by neurosurgeons <b>2007</b> ,		2
21	The VU-DBS project: integrated and computer-assisted planning, intra-operative placement, and post-operative programming of deep-brain stimulators <b>2007</b> ,		2
20	Finding Optimal Neuromodulation for Chronic Pain: Waves, Bursts, and Beyond. <i>Neurology India</i> , <b>2020</b> , 68, S218-S223	0.7	2

19	Thalamic deep brain stimulation as rescue therapy for tremor following bilateral radiosurgery. <i>Parkinsonism and Related Disorders</i> , <b>2017</b> , 36, 100-102	3.6	1
18	High-frequency cortical stimulation augments recovery of thalamocortical oscillations from hypoxia in rat brain slices. <i>Neuromodulation</i> , <b>2011</b> , 14, 104-10; discussion 110	3.1	1
17	Combining electrical and optical techniques to develop a novel modality for neural activation <b>2010</b> ,		1
16	Method for placing deep-brain stimulators <b>2003</b> ,		1
15	Validation of an automatic algorithm to identify NeuroPace depth leads in CT images <b>2019</b> ,		1
14	Protocolizing the Workup for Idiopathic Normal Pressure Hydrocephalus Improves Outcomes. <i>Neurology: Clinical Practice</i> , <b>2021</b> , 11, e447-e453	1.7	1
13	Early Clinical Evaluation of a Computer Assisted Planning System for Deep Brain Surgeries: 1 Year of Clinical Assistance. <i>Lecture Notes in Computer Science</i> , <b>2010</b> , 190-199	0.9	1
12	BDNF rs6265 Genotype Influences Outcomes of Pharmacotherapy and Subthalamic Nucleus Deep Brain Stimulation in Early-Stage Parkinson's Disease. <i>Neuromodulation</i> , <b>2021</b> ,	3.1	1
11	Early subthalamic nucleus deep brain stimulation in Parkinson's disease reduces long-term medication costs. <i>Clinical Neurology and Neurosurgery</i> , <b>2021</b> , 210, 106976	2	0
10	Bone Cement Cranioplasty Reduces Cerebrospinal Fluid Leak Rate after Microvascular Decompression: A Single-Institutional Experience. <i>Journal of Neurological Surgery, Part B: Skull Base</i> , <b>2021</b> , 82, 556-561	1.5	0
9	Stereoencephalography and the Role of the Nurse. <i>Journal of Neuroscience Nursing</i> , <b>2020</b> , 52, 103-105	1.5	0
8	Examining the Need to Standardize Implanted Stimulator Connectors: NANS Survey Results. <i>Neuromodulation</i> , <b>2020</b> ,	3.1	0
7	Big Data and Deep Brain Stimulation <b>2018</b> , 137-145		
6	Computer-aided placement of deep brain stimulators: from planning to intraoperative guidance <b>2005</b> , 5744, 345		
5	Direct noninvasive monitoring of spinal cord motor function during thoracic aortic occlusion. <i>Journal of Vascular Surgery</i> , <b>1989</b> , 9, 177-8	3.5	
4	Author Response: Deep Brain Stimulation in Early-Stage Parkinson Disease: Five-Year Outcomes. <i>Neurology</i> , <b>2021</b> , 96, 591	6.5	
3	Cryptococcal Meningitis Causing Refractory Hemichorea-Hemiballismus Treated With Pallidotomy. <i>Cureus</i> , <b>2021</b> , 13, e16493	1.2	
2	Author Response: Deep Brain Stimulation in Early-Stage Parkinson Disease: Five-Year Outcomes. <i>Neurology</i> , <b>2021</b> , 96, 592	6.5	



- 1 Experience From 211 Transcortical Selective Amygdalohippocampectomy Procedures: Relevant Surgical Anatomy and Review of the Literature. *Operative Neurosurgery*, **2021**, 21, 181-188 1.6