

Lucas C Parra

List of Publications by Year in descending order

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Version: 2024-02-01

106
papers

9,952
citations

44069

48
h-index

43889

91
g-index

133
all docs

133
docs citations

133
times ranked

7687
citing authors

#	ARTICLE	IF	CITATIONS
1	Recipes for the linear analysis of EEG. <i>NeuroImage</i> , 2005, 28, 326-341.	4.2	489
2	Optimized multi-electrode stimulation increases focality and intensity at target. <i>Journal of Neural Engineering</i> , 2011, 8, 046011.	3.5	468
3	Low-Intensity Electrical Stimulation Affects Network Dynamics by Modulating Population Rate and Spike Timing. <i>Journal of Neuroscience</i> , 2010, 30, 15067-15079.	3.6	465
4	Cellular effects of acute direct current stimulation: somatic and synaptic terminal effects. <i>Journal of Physiology</i> , 2013, 591, 2563-2578.	2.9	456
5	Measurements and models of electric fields in the in vivo human brain during transcranial electric stimulation. <i>ELife</i> , 2017, 6, .	6.0	412
6	An open resource for transdiagnostic research in pediatric mental health and learning disorders. <i>Scientific Data</i> , 2017, 4, 170181.	5.3	375
7	Inter-Individual Variation during Transcranial Direct Current Stimulation and Normalization of Dose Using MRI-Derived Computational Models. <i>Frontiers in Psychiatry</i> , 2012, 3, 91.	2.6	339
8	Immediate neurophysiological effects of transcranial electrical stimulation. <i>Nature Communications</i> , 2018, 9, 5092.	12.8	338
9	Effects of weak transcranial alternating current stimulation on brain activity—a review of known mechanisms from animal studies. <i>Frontiers in Human Neuroscience</i> , 2013, 7, 687.	2.0	282
10	Direct Current Stimulation Modulates LTP and LTD: Activity Dependence and Dendritic Effects. <i>Brain Stimulation</i> , 2017, 10, 51-58.	1.6	255
11	Correlated Components of Ongoing EEG Point to Emotionally Laden Attention — A Possible Marker of Engagement?. <i>Frontiers in Human Neuroscience</i> , 2012, 6, 112.	2.0	237
12	Spike Timing Amplifies the Effect of Electric Fields on Neurons: Implications for Endogenous Field Effects. <i>Journal of Neuroscience</i> , 2007, 27, 3030-3036.	3.6	233
13	Realistic volumetric-approach to simulate transcranial electric stimulation—ROAST—a fully automated open-source pipeline. <i>Journal of Neural Engineering</i> , 2019, 16, 056006.	3.5	229
14	Animal models of transcranial direct current stimulation: Methods and mechanisms. <i>Clinical Neurophysiology</i> , 2016, 127, 3425-3454.	1.5	224
15	The New York Head—A precise standardized volume conductor model for EEG source localization and tES targeting. <i>NeuroImage</i> , 2016, 140, 150-162.	4.2	215
16	Audience preferences are predicted by temporal reliability of neural processing. <i>Nature Communications</i> , 2014, 5, 4567.	12.8	195
17	Joint decorrelation, a versatile tool for multichannel data analysis. <i>NeuroImage</i> , 2014, 98, 487-505.	4.2	166
18	Low frequency transcranial electrical stimulation does not entrain sleep rhythms measured by human intracranial recordings. <i>Nature Communications</i> , 2017, 8, 1199.	12.8	153

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19	Attention Strongly Modulates Reliability of Neural Responses to Naturalistic Narrative Stimuli. <i>Journal of Neuroscience</i> , 2016, 36, 3092-3101.	3.6	144
20	Rigor and reproducibility in research with transcranial electrical stimulation: An NIMH-sponsored workshop. <i>Brain Stimulation</i> , 2018, 11, 465-480.	1.6	144
21	Nonnegative Matrix Factorization for Rapid Recovery of Constituent Spectra in Magnetic Resonance Chemical Shift Imaging of the Brain. <i>IEEE Transactions on Medical Imaging</i> , 2004, 23, 1453-1465.	8.9	143
22	Automated MRI segmentation for individualized modeling of current flow in the human head. <i>Journal of Neural Engineering</i> , 2013, 10, 066004.	3.5	143
23	Targeted transcranial direct current stimulation for rehabilitation after stroke. <i>NeuroImage</i> , 2013, 75, 12-19.	4.2	142
24	EEG in the classroom: Synchronised neural recordings during video presentation. <i>Scientific Reports</i> , 2017, 7, 43916.	3.3	131
25	In a Blink of an Eye and a Switch of a Transistor: Cortically Coupled Computer Vision. <i>Proceedings of the IEEE</i> , 2010, 98, 462-478.	21.3	126
26	Imaging artifacts induced by electrical stimulation during conventional fMRI of the brain. <i>NeuroImage</i> , 2014, 85, 1040-1047.	4.2	117
27	Response error correction-a demonstration of improved human-machine performance using real-time EEG monitoring. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2003, 11, 173-177.	4.9	116
28	Subject position affects EEG magnitudes. <i>NeuroImage</i> , 2013, 64, 476-484.	4.2	112
29	Spatiotemporal Linear Decoding of Brain State. <i>IEEE Signal Processing Magazine</i> , 2008, 25, 107-115.	5.6	111
30	Clinically Effective Treatment of Fibromyalgia Pain With High-Definition Transcranial Direct Current Stimulation: Phase II Open-Label Dose Optimization. <i>Journal of Pain</i> , 2016, 17, 14-26.	1.4	111
31	Direct Current Stimulation Alters Neuronal Input/Output Function. <i>Brain Stimulation</i> , 2017, 10, 36-45.	1.6	107
32	Validation of finite element model of transcranial electrical stimulation using scalp potentials: implications for clinical dose. <i>Journal of Neural Engineering</i> , 2013, 10, 036018.	3.5	106
33	Direct current stimulation boosts hebbian plasticity in vitro. <i>Brain Stimulation</i> , 2020, 13, 287-301.	1.6	103
34	Cortical origins of response time variability during rapid discrimination of visual objects. <i>NeuroImage</i> , 2005, 28, 342-353.	4.2	94
35	Can transcranial electric stimulation with multiple electrodes reach deep targets?. <i>Brain Stimulation</i> , 2019, 12, 30-40.	1.6	93
36	Illusory percepts from auditory adaptation. <i>Journal of the Acoustical Society of America</i> , 2007, 121, 1632-1641.	1.1	86

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37	Memorable Audiovisual Narratives Synchronize Sensory and Supramodal Neural Responses. <i>ENeuro</i> , 2016, 3, ENEURO.0203-16.2016.	1.9	80
38	Neural engagement with online educational videos predicts learning performance for individual students. <i>Neurobiology of Learning and Memory</i> , 2018, 155, 60-64.	1.9	77
39	Finding influential nodes for integration in brain networks using optimal percolation theory. <i>Nature Communications</i> , 2018, 9, 2274.	12.8	77
40	Transcranial Electrical Stimulation Accelerates Human Sleep Homeostasis. <i>PLoS Computational Biology</i> , 2013, 9, e1002898.	3.2	74
41	Concurrent Adaptation of Human and Machine Improves Simultaneous and Proportional Myoelectric Control. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2015, 23, 618-627.	4.9	69
42	The Healthy Brain Network Serial Scanning Initiative: a resource for evaluating inter-individual differences and their reliabilities across scan conditions and sessions. <i>GigaScience</i> , 2017, 6, 1-14.	6.4	66
43	Feasibility of using high-definition transcranial direct current stimulation (HD-tDCS) to enhance treatment outcomes in persons with aphasia. <i>NeuroRehabilitation</i> , 2015, 36, 115-126.	1.3	65
44	Multiway canonical correlation analysis of brain data. <i>NeuroImage</i> , 2019, 186, 728-740.	4.2	65
45	Optimal use of EEG recordings to target active brain areas with transcranial electrical stimulation. <i>NeuroImage</i> , 2017, 157, 69-80.	4.2	64
46	Elucidating relations between fMRI, ECoG, and EEG through a common natural stimulus. <i>NeuroImage</i> , 2018, 179, 79-91.	4.2	64
47	Direct current stimulation boosts synaptic gain and cooperativity <i>in vitro</i> . <i>Journal of Physiology</i> , 2017, 595, 3535-3547.	2.9	62
48	Temporal interference stimulation targets deep brain regions by modulating neural oscillations. <i>Brain Stimulation</i> , 2021, 14, 55-65.	1.6	59
49	Transcranial Slow Oscillation Stimulation During Sleep Enhances Memory Consolidation in Rats. <i>Brain Stimulation</i> , 2014, 7, 508-515.	1.6	58
50	Functional connectivity of EEG is subject-specific, associated with phenotype, and different from fMRI. <i>NeuroImage</i> , 2020, 218, 117001.	4.2	58
51	ROAST: An Open-Source, Fully-Automated, Realistic Volumetric-Approach-Based Simulator For TES. , 2018, 2018, 3072-3075.		55
52	Combined behavioral and electrophysiological evidence for a direct cortical effect of prefrontal tDCS on disorders of consciousness. <i>Scientific Reports</i> , 2020, 10, 4323.	3.3	55
53	Closed-Loop Acoustic Stimulation Enhances Sleep Oscillations But Not Memory Performance. <i>ENeuro</i> , 2019, 6, ENEURO.0306-19.2019.	1.9	55
54	Clinician Accessible Tools for GUI Computational Models of Transcranial Electrical Stimulation: BONSAI and SPHERES. <i>Brain Stimulation</i> , 2014, 7, 521-524.	1.6	52

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55	Transcranial direct current stimulation in obsessive-compulsive disorder: emerging clinical evidence and considerations for optimal montage of electrodes. <i>Expert Review of Medical Devices</i> , 2015, 12, 381-391.	2.8	52
56	Conscious processing of narrative stimuli synchronizes heart rate between individuals. <i>Cell Reports</i> , 2021, 36, 109692.	6.4	52
57	Extracting multidimensional stimulus-response correlations using hybrid encoding-decoding of neural activity. <i>NeuroImage</i> , 2018, 180, 134-146.	4.2	51
58	A resource for assessing information processing in the developing brain using EEG and eye tracking. <i>Scientific Data</i> , 2017, 4, 170040.	5.3	48
59	Lasting modulation of in vitro oscillatory activity with weak direct current stimulation. <i>Journal of Neurophysiology</i> , 2015, 113, 1334-1341.	1.8	46
60	Engaging narratives evoke similar neural activity and lead to similar time perception. <i>Scientific Reports</i> , 2017, 7, 4578.	3.3	46
61	EEG can predict speech intelligibility. <i>Journal of Neural Engineering</i> , 2019, 16, 036008.	3.5	41
62	Synchronized eye movements predict test scores in online video education. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	38
63	Single-Trial Analysis of Neuroimaging Data: Inferring Neural Networks Underlying Perceptual Decision-Making in the Human Brain. <i>IEEE Reviews in Biomedical Engineering</i> , 2009, 2, 97-109.	18.0	37
64	Impaired cochlear function correlates with the presence of tinnitus and its estimated spectral profile. <i>Hearing Research</i> , 2011, 277, 107-116.	2.0	36
65	Fully Automated Whole-Head Segmentation with Improved Smoothness and Continuity, with Theory Reviewed. <i>PLoS ONE</i> , 2015, 10, e0125477.	2.5	36
66	Optimization of interferential stimulation of the human brain with electrode arrays. <i>Journal of Neural Engineering</i> , 2020, 17, 036023.	3.5	34
67	The Variability of Neural Responses to Naturalistic Videos Change with Age and Sex. <i>ENeuro</i> , 2018, 5, ENEURO.0244-17.2017.	1.9	33
68	The point spread function of the human head and its implications for transcranial current stimulation. <i>Physics in Medicine and Biology</i> , 2012, 57, 6459-6477.	3.0	30
69	Inherent physiological artifacts in EEG during tDCS. <i>NeuroImage</i> , 2019, 185, 408-424.	4.2	30
70	Effects of direct current stimulation on synaptic plasticity in a single neuron. <i>Brain Stimulation</i> , 2021, 14, 588-597.	1.6	30
71	Music synchronizes brainwaves across listeners with strong effects of repetition, familiarity and training. <i>Scientific Reports</i> , 2019, 9, 3576.	3.3	28
72	EEG precursors of detected and missed targets during free-viewing search. <i>Journal of Vision</i> , 2013, 13, 13-13.	0.3	26

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73	Simulating pad-electrodes with high-definition arrays in transcranial electric stimulation. <i>Journal of Neural Engineering</i> , 2014, 11, 026003.	3.5	26
74	Adaptive Auto-Regressive Proportional Myoelectric Control. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 314-322.	4.9	25
75	Divergent neural responses to narrative speech in disorders of consciousness. <i>Annals of Clinical and Translational Neurology</i> , 2017, 4, 784-792.	3.7	24
76	Cognitive processing of a common stimulus synchronizes brains, hearts, and eyes. , 2022, 1, .		23
77	Model of the effect of extracellular fields on spike time coherence. , 2004, 2004, 4584-7.		20
78	The Effects of Compensatory Auditory Stimulation and High-Definition Transcranial Direct Current Stimulation (HD-tDCS) on Tinnitus Perception â€” A Randomized Pilot Study. <i>PLoS ONE</i> , 2016, 11, e0166208.	2.5	19
79	Spectrum separation resolves partialâ€volume effect of MRSI as demonstrated on brain tumor scans. <i>NMR in Biomedicine</i> , 2008, 21, 1030-1042.	2.8	18
80	Neural Correlates of Perceived Confidence in a Partial Report Paradigm. <i>Journal of Cognitive Neuroscience</i> , 2015, 27, 1090-1103.	2.3	18
81	Optimized tDCS for Targeting Multiple Brain Regions: An Integrated Implementation. , 2018, 2018, 3545-3548.		18
82	Radiologist-Level Performance by Using Deep Learning for Segmentation of Breast Cancers on MRI Scans. <i>Radiology: Artificial Intelligence</i> , 2022, 4, e200231.	5.8	16
83	Temporal regularity increases with repertoire complexity in the Australian pied butcherbird's song. <i>Royal Society Open Science</i> , 2016, 3, 160357.	2.4	15
84	Weak DCS causes a relatively strong cumulative boost of synaptic plasticity with spaced learning. <i>Brain Stimulation</i> , 2022, 15, 57-62.	1.6	14
85	A doubleâ€blind shamâ€controlled phase 1 clinical trial of tDCS of the dorsolateral prefrontal cortex in cocaine inpatients: Craving, sleepiness, and contemplation to change. <i>European Journal of Neuroscience</i> , 2021, 53, 3212-3230.	2.6	11
86	Evoked Neural Responses to Events in Video. <i>IEEE Journal on Selected Topics in Signal Processing</i> , 2014, 8, 358-365.	10.8	10
87	Cutaneous sensation of electrical stimulation waveforms. <i>Brain Stimulation</i> , 2021, 14, 693-702.	1.6	10
88	On the Maximization of Information Flow Between Spiking Neurons. <i>Neural Computation</i> , 2009, 21, 2991-3009.	2.2	9
89	Sensitization to masked tones following notched-noise correlates with estimates of cochlear function using distortion product otoacoustic emissions. <i>Journal of the Acoustical Society of America</i> , 2010, 127, 970-976.	1.1	9
90	Visually evoked responses are enhanced when engaging in a video game. <i>European Journal of Neuroscience</i> , 2020, 52, 4695-4708.	2.6	9

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91	Collective Behaviour in Video Viewing: A Thermodynamic Analysis of Gaze Position. PLoS ONE, 2017, 12, e0168995.	2.5	8
92	Smooth bilinear classification of EEG. , 2006, 2006, 4249-52.		6
93	Olfaction Modulates Inter-Subject Correlation of Neural Responses. Frontiers in Neuroscience, 2020, 14, 702.	2.8	6
94	A multiple electrode scheme for optimal non-invasive electrical stimulation. , 2011, , .		5
95	During natural viewing, neural processing of visual targets continues throughout saccades. Journal of Vision, 2021, 21, 7.	0.3	4
96	Cortically-Coupled Computer Vision. Human-computer Interaction Series, 2010, , 133-148.	0.6	4
97	No EEG evidence for subconscious detection during Rapid Serial Visual Presentation. , 2011, , .		3
98	Animal Studies on the Mechanisms of Low-Intensity Transcranial Electric Stimulation. , 2021, , 67-92.		3
99	Segmentation of MRI head anatomy using deep volumetric networks and multiple spatial priors. Journal of Medical Imaging, 2021, 8, 034001.	1.5	3
100	Neural responses to natural visual motion are spatially selective across the visual field, with selectivity differing across brain areas and task. European Journal of Neuroscience, 2021, 54, 7609-7625.	2.6	2
101	Single-Trial Analysis of EEG for Enabling Cognitive User Interfaces. , 0, , 635-650.		1
102	Animal Models of tES: Methods, Techniques, and Safety. , 2021, , 49-66.		1
103	Deep Learning Achieves Neuroradiologist-Level Performance in Detecting Hydrocephalus Requiring Treatment. Journal of Digital Imaging, 2022, 35, 1662-1672.	2.9	1
104	Spectral separation resolves partial volume effect in MRSI: A validation study. , 2007, , .		0
105	Spatial projections of neural arrays: A short guide to classic and new signal analysis techniques. , 2013, , .		0
106	Bayesian correlated component analysis for inference of joint EEG activation. , 2014, , .		0