Flavio FrÃ¶hlich

List of Publications by Year
in descending order

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119 papers	5,577 citations	101543 36 h-index	98798 67 g-index
132 all docs	132 docs citations	132 times ranked	5361 citing authors

#	Article	IF	Citations
1	Reduction in Left Frontal Alpha Oscillations by Transcranial Alternating Current Stimulation in Major Depressive Disorder Is Context Dependent in a Randomized Clinical Trial. Biological Psychiatry: Cognitive Neuroscience and Neuroimaging, 2022, 7, 302-311.	1.5	15
2	Autonomic and Depression Symptoms in Parkinsonâ€™s Disease: Clinical Evidence for Overlapping Physiology. Journal of Parkinson's Disease, 2022, 12, 1059-1067.	2.8	8
3	Closed-loop control of bistable symptom states. Brain Stimulation, 2022, 15, 454-456.	1.6	4
4	Cell type-specific excitability probed by optogenetic stimulation depends on the phase of the alpha oscillation. Brain Stimulation, 2022, 15, 472-482.	1.6	6
5	Entrainment of brain network oscillations in anaesthesia. Comment on Br J Anaesth 2020; 125: 330â€“335. British Journal of Anaesthesia, 2021, 126, e11-e12.	3.4	2
6	OUP accepted manuscript. Cerebral Cortex, 2021, , .	2.9	7
7	Target Engagement with Transcranial Current Stimulation. , 2021, , 211-242.		0
8	Metabolic state and gustatory perception shapes dynamic interplay between cortical excitability and motor response. Brain Stimulation, 2021, 14, 202-205.	1.6	2
9	Experimental increase of blood glucose alters resting state EEG measures of excitationâ€“inhibition balance. Experimental Physiology, 2021, 106, 803-811.	2.0	1
10	Transcranial Alternating Current Stimulation Reduces Network Hypersynchrony and Persistent Vertigo. Neuromodulation, 2021, 24, 960-968.	0.8	6
11	Closed-Loop Transcranial Alternating Current Stimulation: Towards Personalized Non-invasive Brain Stimulation for the Treatment of Psychiatric Illnesses. Current Behavioral Neuroscience Reports, 2021, 8, 51-57.	1.3	19
12	Brainwave entrainment for the treatment of chronic pain: comment on Br J Pain 2020; 14: 161â€“70. British Journal of Pain, 2021, 15, 204946372199461.	1.5	3
13	Carbohydrate Intake Prior to Oral Glucose Tolerance Testing. Journal of the Endocrine Society, 2021, 5, bvab049.	0.2	16
14	Addiction history moderates the effect of prefrontal 10-Hz transcranial alternating current stimulation on habitual action selection. Journal of Neurophysiology, 2021, 125, 768-780.	1.8	4
15	Pinging the brain with transcranial magnetic stimulation reveals cortical reactivity in time and space. Brain Stimulation, 2021, 14, 304-315.	1.6	46
16	A case study of the feasibility of weekly tACS for the treatment of auditory hallucinations in schizophrenia. Brain Stimulation, 2021, 14, 361-363.	1.6	7
17	Transcranial alternating current stimulation (tACS) as a treatment for fibromyalgia syndrome?. European Archives of Psychiatry and Clinical Neuroscience, 2021, , 1.	3.2	1
18	Disinhibition of right inferior frontal gyrus underlies alpha asymmetry in women with low testosterone. Biological Psychology, 2021, 161, 108061.	2.2	4

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19	Noninvasive Brain Stimulation Rescues Cocaine-Induced Prefrontal Hypoactivity and Restores Flexible Behavior. Biological Psychiatry, 2021, 89, 1001-1011.	1.3	22
20	Conducting double-blind placebo-controlled clinical trials of transcranial alternating current stimulation (tACS). Translational Psychiatry, 2021, 11, 284.	4.8	24
21	Transcranial alternating current stimulation entrains alpha oscillations by preferential phase synchronization of fast-spiking cortical neurons to stimulation waveform. Nature Communications, 2021, 12, 3151.	12.8	74
22	Schizophrenia and Bartonella spp. Infection: A Pilot Caseâ€“Control Study. Vector-Borne and Zoonotic Diseases, 2021, 21, 413-421.	1.5	17
23	Transcranial alternating current stimulation for the treatment of obsessive-compulsive disorder?. Brain Stimulation, 2021, 14, 1048-1050.	1.6	1
24	NeuroTec Sitem-Insel Bern: Closing the Last Mile in Neurology. Clinical and Translational Neuroscience, 2021, 5, 13.	0.9	10
25	Causal role of cross-frequency coupling in distinct components of cognitive control. Progress in Neurobiology, 2021, 202, 102033.	5.7	44
26	Lost in Translation: the Gap Between Neurobiological Mechanisms and Psychosocial Treatment Research for Substance Use Disorders. Current Addiction Reports, 2021, 8, 440-451.	3.4	3
27	Differing dose details and controlling confounding covariates in modulating motor cortex excitability by transcranial direct current stimulation. Brain Stimulation, 2021, 14, 947-948.	1.6	0
28	Targeting neural oscillations with transcranial alternating current stimulation. Brain Research, 2021, 1765, 147491.	2.2	22
29	Causal role of frontal-midline theta in cognitive effort: a pilot study. Journal of Neurophysiology, 2021, 126, 1221-1233.	1.8	12
30	A case study of weekly tACS for the treatment of major depressive disorder. Brain Stimulation, 2020, 13, 576-577.	1.6	25
31	Neurophysiological substrates of configural face perception in schizotypy. Schizophrenia Research, 2020, 216, 389-396.	2.0	1
32	Progesterone modulates theta oscillations in the frontalâ€parietal network. Psychophysiology, 2020, 57, e13632.	2.4	8
33	Stimulus-specific regulation of visual oddball differentiation in posterior parietal cortex. Scientific Reports, 2020, 10, 13973.	3.3	4
34	Alpha-tACS effect on inhibitory control and feasibility of administration in community outpatient substance use treatment. Drug and Alcohol Dependence, 2020, 213, 108132.	3.2	14
35	Putative modulation of the gut microbiome by probiotics enhances preference for novelty in a preliminary double-blind placebo-controlled study in ferrets. Animal Microbiome, 2020, 2, .	3.8	6
36	Neuromodulation of sleep rhythms in schizophrenia: Towards the rational design of non-invasive brain stimulation. Schizophrenia Research, 2020, 221, 71-80.	2.0	16

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37	Brain-derived neurotrophic factor (BDNF) polymorphism may influence the efficacy of tACS to modulate neural oscillations. Brain Stimulation, 2020, 13, 998-999.	1.6	17
38	Exploring the relationship between geomagnetic activity and human heart rate variability. European Journal of Applied Physiology, 2020, 120, 1371-1381.	2.5	7
39	Nonrapid eye movement sleep and risk for autism spectrum disorder in early development: A topographical electroencephalogram pilot study. Brain and Behavior, 2020, 10, e01557.	2.2	15
40	Transcranial electrical and magnetic stimulation (tES and TMS) for addiction medicine: A consensus paper on the present state of the science and the road ahead. Neuroscience and Biobehavioral Reviews, 2019, 104, 118-140.	6.1	198
41	Active and Passive Rhythmic Music Therapy Interventions Differentially Modulate Sympathetic Autonomic Nervous System Activity. Journal of Music Therapy, 2019, 56, 240-264.	0.9	30
42	Double-blind, randomized pilot clinical trial targeting alpha oscillations with transcranial alternating current stimulation (tACS) for the treatment of major depressive disorder (MDD). Translational Psychiatry, 2019, 9, 106.	4.8	116
43	Diffusion geometry approach to efficiently remove electrical stimulation artifacts in intracranial electroencephalography. Journal of Neural Engineering, 2019, 16, 036010.	3.5	23
44	Network-Targeted, Multi-site Direct Cortical Stimulation Enhances Working Memory by Modulating Phase Lag of Low-Frequency Oscillations. Cell Reports, 2019, 29, 2590-2598.e4.	6.4	20
45	Targeting the Autonomic Nervous System Balance in Patients with Chronic Low Back Pain Using Transcranial Alternating Current Stimulation: A Randomized, Crossover, Double-Blind, Placebo-Controlled Pilot Study . Journal of Pain Research, 2019, Volume 12, 3265-3277.	2.0	12
46	Targeting reduced neural oscillations in patients with schizophrenia by transcranial alternating current stimulation. NeuroImage, 2019, 186, 126-136.	4.2	95
47	Rhythmic modulation of thalamic oscillations depends on intrinsic cellular dynamics. Journal of Neural Engineering, 2019, 16, 016013.	3.5	7
48	Modulating neural oscillations by transcranial static magnetic field stimulation of the dorsolateral prefrontal cortex: A crossover, doubleâ€blind, shamâ€controlled pilot study. European Journal of Neuroscience, 2019, 49, 250-262.	2.6	17
49	Low-frequency direct cortical stimulation of left superior frontal gyrus enhances working memory performance. NeuroImage, 2019, 184, 697-706.	4.2	57
50	Identifying and Engaging Neuronal Oscillations by Transcranial Alternating Current Stimulation in Patients With Chronic Low Back Pain: A Randomized, Crossover, Double-Blind, Sham-Controlled Pilot Study. Journal of Pain, 2019, 20, 277.e1-277.e11.	1.4	67
51	Social, motor, and cognitive development through the lens of sleep network dynamics in infants and toddlers between 12 and 30 months of age. Sleep, 2018, 41, .	1.1	30
52	4. Oscillations in Brain Networks as Therapeutic Targets: Identification, Engagement, and Validation. Biological Psychiatry, 2018, 83, S2.	1.3	1
53	Targeting alpha-band oscillations in a cortical model with amplitude-modulated high-frequency transcranial electric stimulation. NeuroImage, 2018, 173, 3-12.	4.2	54
54	Rigor and reproducibility in research with transcranial electrical stimulation: An NIMH-sponsored workshop. Brain Stimulation, 2018, 11, 465-480.	1.6	144

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55	Randomized trial of transcranial alternating current stimulation for treatment of auditory hallucinations in schizophrenia. European Psychiatry, 2018, 51, 25-33.	0.2	74
56	I_h interacts with somato-dendritic structure to determine frequency response to weak alternating electric field stimulation. Journal of Neurophysiology, 2018, 119, 1029-1036.	1.8	26
57	High-density EEG characterization of brain responses to auditory rhythmic stimuli during wakefulness and NREM sleep. NeuroImage, 2018, 169, 57-68.	4.2	44
58	Rational design of transcranial alternating current stimulation. Clinical and Translational Neuroscience, 2018, 2, 2514183X1879351.	0.9	11
59	Neuromodulationâ€dependent effect of gated highâ€frequency, LFMS â€like electric field stimulation in mouse cortical slices. European Journal of Neuroscience, 2018, 49, 1288-1297.	2.6	1
60	Non-linear transfer characteristics of stimulation and recording hardware account for spurious low-frequency artifacts during amplitude modulated transcranial alternating current stimulation (AM-tACS). NeuroImage, 2018, 179, 134-143.	4.2	39
61	Arousal dependent modulation of thalamo-cortical functional interaction. Nature Communications, 2018, 9, 2455.	12.8	51
62	Intrinsic Rhythmicity Predicts Synchronization-Continuation Entrainment Performance. Scientific Reports, 2018, 8, 11782.	3.3	27
63	MIN1PIPE: A Miniscope 1-Photon-Based Calcium Imaging Signal Extraction Pipeline. Cell Reports, 2018, 23, 3673-3684.	6.4	108
64	Maternal Immune Activation Alters Adult Behavior, Gut Microbiome and Juvenile Brain Oscillations in Ferrets. ENeuro, 2018, 5, ENEURO.0313-18.2018.	1.9	19
65	Theta Oscillations Organize Spiking Activity in Higher-Order Visual Thalamus during Sustained Attention. ENeuro, 2018, 5, ENEURO.0384-17.2018.	1.9	15
66	Interaction of Intrinsic and Synaptic Currents Mediate Network Resonance Driven by Layer V Pyramidal Cells. Cerebral Cortex, 2017, 27, 4396-4410.	2.9	20
67	Differential effects of 10-Hz and 40-Hz transcranial alternating current stimulation (tACS) on endogenous versus exogenous attention. Cognitive Neuroscience, 2017, 8, 102-111.	1.4	55
68	Guiding transcranial brain stimulation by EEG/MEG to interact with ongoing brain activity and associated functions: A position paper. Clinical Neurophysiology, 2017, 128, 843-857.	1.5	211
69	Low-Intensity Transcranial Current Stimulation in Psychiatry. American Journal of Psychiatry, 2017, 174, 628-639.	7.2	105
70	Early Development of Network Oscillations in the Ferret Visual Cortex. Scientific Reports, 2017, 7, 17766.	3.3	9
71	Stochastic resonance mediates the state-dependent effect of periodic stimulation on cortical alpha oscillations. ELife, 2017, 6, .	6.0	41
72	Breakdown of local information processing may underlie isoflurane anesthesia effects. PLoS Computational Biology, 2017, 13, e1005511.	3.2	52

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73	Unified thalamic model generates multiple distinct oscillations with state-dependent entrainment by stimulation. PLoS Computational Biology, 2017, 13, e1005797.	3.2	34
74	Low-Frequency Oscillations. , 2016, , 231-242.		0
75	Alpha Oscillations. , 2016, , 251-260.		0
76	Noninvasive Brain Stimulation. , 2016, , 197-210.		4
77	Neuronal Communication BeyondÂSynapses. , 2016, , 73-84.		0
78	Statistical Frequency-Dependent Analysis of Trial-to-Trial Variability in Single Time Series by Recurrence Plots. Frontiers in Systems Neuroscience, 2016, 9, 184.	2.5	6
79	Structural and functional connectivity between the lateral posteriorâ€“pulvinar complex and primary visual cortex in the ferret. European Journal of Neuroscience, 2016, 43, 230-244.	2.6	15
80	Optimal estimation of recurrence structures from time series. Europhysics Letters, 2016, 114, 38003.	2.0	18
81	Resting state network topology of the ferret brain. NeuroImage, 2016, 143, 70-81.	4.2	30
82	Oscillatory Dynamics in the Frontoparietal Attention Network during Sustained Attention in the Ferret. Cell Reports, 2016, 16, 2864-2874.	6.4	39
83	Feedback-Controlled Transcranial Alternating Current Stimulation Reveals a Functional Role of Sleep Spindles in Motor Memory Consolidation. Current Biology, 2016, 26, 2127-2136.	3.9	194
84	Target Engagement with Transcranial Current Stimulation. , 2016, , 197-222.		1
85	Dorso-Lateral Frontal Cortex of the Ferret Encodes Perceptual Difficulty during Visual Discrimination. Scientific Reports, 2016, 6, 23568.	3.3	17
86	Exploratory study of once-daily transcranial direct current stimulation (tDCS) as a treatment for auditory hallucinations in schizophrenia. European Psychiatry, 2016, 33, 54-60.	0.2	71
87	Modulation of Cortical Oscillations by Low-Frequency Direct Cortical Stimulation Is State-Dependent. PLoS Biology, 2016, 14, e1002424.	5.6	138
88	Dynamics analysis of neural univariate time series by recurrence plots. BMC Neuroscience, 2015, 16, .	1.9	0
89	Anesthesia-related changes in information transfer may be caused by reduction in local information generation. , 2015, 2015, 4045-8.		5
90	Awake vs. anesthetized: layer-specific sensory processing in visual cortex and functional connectivity between cortical areas. Journal of Neurophysiology, 2015, 113, 3798-3815.	1.8	74

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91	Frequency-band signatures of visual responses to naturalistic input in ferret primary visual cortex during free viewing. Brain Research, 2015, 1598, 31-45.	2.2	12
92	Targeting the neurophysiology of cognitive systems with transcranial alternating current stimulation. Expert Review of Neurotherapeutics, 2015, 15, 145-167.	2.8	79
93	Rhythmic 3â€“4Hz discharge is insufficient to produce cortical BOLD fMRI decreases in generalized seizures. NeuroImage, 2015, 109, 368-377.	4.2	11
94	Transcranial direct current stimulation (tDCS) of frontal cortex decreases performance on the WAIS-IV intelligence test. Behavioural Brain Research, 2015, 290, 32-44.	2.2	53
95	Functional role of frontal alpha oscillations in creativity. Cortex, 2015, 67, 74-82.	2.4	123
96	Experiments and models of cortical oscillations as a target for noninvasive brain stimulation. Progress in Brain Research, 2015, 222, 41-73.	1.4	119
97	Tuning out the Blues â€“ Thalamo-Cortical Rhythms as a Successful Target forÂTreating Depression. Brain Stimulation, 2015, 8, 1007-1009.	1.6	12
98	Transplantation of GABAergic Interneurons into the Neonatal Primary Visual Cortex Reduces Absence Seizures in Stargazer Mice. Cerebral Cortex, 2015, 25, 2970-2979.	2.9	40
99	Endogenous Cortical Oscillations Constrain Neuromodulation by Weak Electric Fields. Brain Stimulation, 2014, 7, 878-889.	1.6	109
100	Endogenous and exogenous electric fields as modifiers of brain activity: rational design of noninvasive brain stimulation with transcranial alternating current stimulation. Dialogues in Clinical Neuroscience, 2014, 16, 93-102.	3.7	66
101	Transcranial Alternating Current Stimulation Modulates Large-Scale Cortical Network Activity by Network Resonance. Journal of Neuroscience, 2013, 33, 11262-11275.	3.6	387
102	Differential effects of cholinergic and noradrenergic neuromodulation on spontaneous cortical network dynamics. Neuropharmacology, 2013, 72, 259-273.	4.1	36
103	Emergence of Metastable State Dynamics in Interconnected Cortical Networks with Propagation Delays. PLoS Computational Biology, 2013, 9, e1003304.	3.2	40
104	EEG feedback-controlled transcranial alternating current stimulation. , 2013, , .		24
105	Anesthesia differentially modulates spontaneous network dynamics by cortical area and layer. Journal of Neurophysiology, 2013, 110, 2739-2751.	1.8	72
106	Rational design of transcranial current stimulation (TCS) through mechanistic insights into cortical network dynamics. Frontiers in Human Neuroscience, 2013, 7, 804.	2.0	16
107	Network Bistability Mediates Spontaneous Transitions between Normal and Pathological Brain States. Journal of Neuroscience, 2010, 30, 10734-10743.	3.6	104
108	Endogenous Electric Fields May Guide Neocortical Network Activity. Neuron, 2010, 67, 129-143.	8.1	755

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109	Cellular and network mechanisms of electrographic seizures. Drug Discovery Today: Disease Models, 2008, 5, 45-57.	1.2	60
110	Cortical and thalamic components of neocortical kindling-induced epileptogenesis in behaving cats. Experimental Neurology, 2008, 211, 518-528.	4.1	8
111	Pathological Effect of Homeostatic Synaptic Scaling on Network Dynamics in Diseases of the Cortex. Journal of Neuroscience, 2008, 28, 1709-1720.	3.6	83
112	Potassium Dynamics in the Epileptic Cortex: New Insights on an Old Topic. Neuroscientist, 2008, 14, 422-433.	3.5	167
113	Extracellular Potassium Dynamics and Epileptogenesis. , 2008, , 419-439.		12
114	Coexistence of tonic firing and bursting in cortical neurons. Physical Review E, 2006, 74, 031922.	2.1	98
115	Slow State Transitions of Sustained Neural Oscillations by Activity-Dependent Modulation of Intrinsic Excitability. Journal of Neuroscience, 2006, 26, 6153-6162.	3.6	91
116	Feedback control of Hodgkinâ€“Huxley nerve cell dynamics. Control Engineering Practice, 2005, 13, 1195-1206.	5.5	21
117	Maintenance and termination of neocortical oscillations by dynamic modulation of intrinsic and synaptic excitability. Thalamus & Related Systems, 2005, 3, 147.	0.5	15
118	Maintenance and termination of neocortical oscillations by dynamic modulation of intrinsic and synaptic excitability. Thalamus & Related Systems, 2005, 3, 147-156.	0.5	11
119	Annihilation of Single Cell Neural Oscillations by Feedforward and Feedback Control. Journal of Computational Neuroscience, 2004, 17, 165-178.	1.0	10