

Niels Birbaumer

List of Publications by Year in descending order

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Version: 2024-02-01

113
papers

8,068
citations

76196

40
h-index

51492

86
g-index

117
all docs

117
docs citations

117
times ranked

7174
citing authors

#	ARTICLE	IF	CITATIONS
1	Brain-machine interface in chronic stroke rehabilitation: A controlled study. <i>Annals of Neurology</i> , 2013, 74, 100-108.	2.8	754
2	Deficient Fear Conditioning in Psychopathy. <i>Archives of General Psychiatry</i> , 2005, 62, 799.	13.8	625
3	Brain-computer interfaces: communication and restoration of movement in paralysis. <i>Journal of Physiology</i> , 2007, 579, 621-636.	1.3	597
4	Brain-machine computer interfaces for communication and rehabilitation. <i>Nature Reviews Neurology</i> , 2016, 12, 513-525.	4.9	559
5	Breaking the silence: Brain-computer interfaces (BCI) for communication and motor control. <i>Psychophysiology</i> , 2006, 43, 517-532.	1.2	534
6	Brain-machine interfaces in neurorehabilitation of stroke. <i>Neurobiology of Disease</i> , 2015, 83, 172-179.	2.1	256
7	Brain-machine computer interface in paralysis. <i>Current Opinion in Neurology</i> , 2008, 21, 634-638.	1.8	221
8	Learned regulation of brain metabolism. <i>Trends in Cognitive Sciences</i> , 2013, 17, 295-302.	4.0	195
9	Consensus on the reporting and experimental design of clinical and cognitive-behavioural neurofeedback studies (CRED-nf checklist). <i>Brain</i> , 2020, 143, 1674-1685.	3.7	188
10	Aversive Pavlovian conditioning in psychopaths: Peripheral and central correlates. <i>Psychophysiology</i> , 2002, 39, 505-518.	1.2	179
11	Brain-Computer Interface-Based Communication in the Completely Locked-In State. <i>PLoS Biology</i> , 2017, 15, e1002593.	2.6	176
12	Real-time fMRI feedback training may improve chronic tinnitus. <i>European Radiology</i> , 2010, 20, 696-703.	2.3	159
13	The thought-translation device (TTD): neurobehavioral mechanisms and clinical outcome. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2003, 11, 120-123.	2.7	148
14	Real-time fMRI brain computer interfaces: Self-regulation of single brain regions to networks. <i>Biological Psychology</i> , 2014, 95, 4-20.	1.1	147
15	Mapping entrained brain oscillations during transcranial alternating current stimulation (tACS). <i>NeuroImage</i> , 2016, 140, 89-98.	2.1	144
16	Predictability of Brain-Computer Communication. <i>Journal of Psychophysiology</i> , 2004, 18, 121-129.	0.3	142
17	Recognition of Point-Light Biological Motion Displays by Young Children. <i>Perception</i> , 2001, 30, 925-933.	0.5	122
18	Chapter 8 Neurofeedback and Brain-Computer Interface. <i>International Review of Neurobiology</i> , 2009, 86, 107-117.	0.9	122

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19	Alcohol Affects Emotion Through Cognition. <i>Psychological Science</i> , 2001, 12, 527-531.	1.8	120
20	The cortical somatotopic map and phantom phenomena in subjects with congenital limb atrophy and traumatic amputees with phantom limb pain. <i>European Journal of Neuroscience</i> , 1998, 10, 1095-1102.	1.2	115
21	Brain communication in a completely locked-in patient using bedside near-infrared spectroscopy. <i>Neurology</i> , 2014, 82, 1930-1932.	1.5	115
22	Manipulating motor performance and memory through real-time fMRI neurofeedback. <i>Biological Psychology</i> , 2015, 108, 85-97.	1.1	97
23	Improving Motor Corticothalamic Communication After Stroke Using Real-Time fMRI Connectivity-Based Neurofeedback. <i>Neurorehabilitation and Neural Repair</i> , 2016, 30, 671-675.	1.4	89
24	Semantic Memory Impairment in Alzheimer's Disease. <i>Journal of Clinical and Experimental Neuropsychology</i> , 1996, 18, 648-665.	0.8	79
25	Physiological regulation of thinking: brain-computer interface (BCI) research. <i>Progress in Brain Research</i> , 2006, 159, 369-391.	0.9	79
26	Cortical correlates of semantic classical conditioning. <i>Psychophysiology</i> , 1996, 33, 644-649.	1.2	76
27	Lower Limb Movement Preparation in Chronic Stroke. <i>Neurorehabilitation and Neural Repair</i> , 2014, 28, 564-575.	1.4	75
28	Aversive Pavlovian conditioning in psychopaths: Peripheral and central correlates. , 2002, 39, 505.		70
29	Brain oscillatory signatures of motor tasks. <i>Journal of Neurophysiology</i> , 2015, 113, 3663-3682.	0.9	69
30	Short-term effects of behavioral treatment on movement initiation and postural control in Parkinson's disease: A controlled clinical study. <i>Movement Disorders</i> , 1997, 12, 306-314.	2.2	66
31	Volitional regulation of brain responses to food stimuli in overweight and obese subjects: A real-time fMRI feedback study. <i>Appetite</i> , 2017, 112, 188-195.	1.8	66
32	Brain-Machine Interface in Chronic Stroke: Randomized Trial Long-Term Follow-up. <i>Neurorehabilitation and Neural Repair</i> , 2019, 33, 188-198.	1.4	61
33	Real-time fMRI neurofeedback training to improve eating behavior by self-regulation of the dorsolateral prefrontal cortex: A randomized controlled trial in overweight and obese subjects. <i>NeuroImage</i> , 2019, 191, 596-609.	2.1	58
34	Spelling interface using intracortical signals in a completely locked-in patient enabled via auditory neurofeedback training. <i>Nature Communications</i> , 2022, 13, 1236.	5.8	54
35	The distribution of mislocalizations across fingers demonstrates training-induced neuroplastic changes in somatosensory cortex. <i>Experimental Brain Research</i> , 2001, 139, 435-442.	0.7	53
36	Direct Brain Control and Communication in Paralysis. <i>Brain Topography</i> , 2014, 27, 4-11.	0.8	52

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37	Auditory habituation in the fetus and neonate: an fMEG study. <i>Developmental Science</i> , 2013, 16, 287-295.	1.3	50
38	Enhancing Hebbian Learning to Control Brain Oscillatory Activity. <i>Cerebral Cortex</i> , 2015, 25, 2409-2415.	1.6	49
39	Voxel-based morphometry in opera singers: Increased gray-matter volume in right somatosensory and auditory cortices. <i>NeuroImage</i> , 2016, 133, 477-483.	2.1	47
40	Brain self-regulation in criminal psychopaths. <i>Scientific Reports</i> , 2015, 5, 9426.	1.6	46
41	Neurophysiological correlates of mental arithmetic. <i>Psychophysiology</i> , 1996, 33, 522-529.	1.2	45
42	Neuropsychological and neurophysiological aspects of brain-computer interface (BCI) control in paralysis. <i>Journal of Physiology</i> , 2021, 599, 2351-2359.	1.3	45
43	Investigation of brain dynamics in Parkinson's disease by methods derived from nonlinear dynamics. <i>Experimental Brain Research</i> , 2001, 137, 103-110.	0.7	43
44	Motor Learning: Passing a Skill from One Hand to the Other. <i>Current Biology</i> , 2007, 17, R1024-R1026.	1.8	43
45	Category-specific semantic impairment in Alzheimer's disease and temporal lobe dysfunction: A comparative study. <i>Journal of Clinical and Experimental Neuropsychology</i> , 1994, 16, 689-701.	0.8	41
46	Ideomotor silence: the case of complete paralysis and brain-computer interfaces (BCI). <i>Psychological Research</i> , 2012, 76, 183-191.	1.0	41
47	Cortex Integrity Relevance in Muscle Synergies in Severe Chronic Stroke. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 744.	1.0	41
48	Cerebral processing of words and the development of chronic pain. <i>Psychophysiology</i> , 1997, 34, 474-481.	1.2	40
49	Pavlovian aversive and appetitive odor conditioning in humans: subjective, peripheral, and electrocortical changes. <i>Experimental Brain Research</i> , 2000, 132, 203-215.	0.7	40
50	Slow potentials, event-related potentials, γ -band activity, and motor responses during aversive conditioning in humans. <i>Experimental Brain Research</i> , 1996, 112, 298-312.	0.7	39
51	Decoding upper limb residual muscle activity in severe chronic stroke. <i>Annals of Clinical and Translational Neurology</i> , 2015, 2, 1-11.	1.7	38
52	Brain oscillatory activity as a biomarker of motor recovery in chronic stroke. <i>Human Brain Mapping</i> , 2020, 41, 1296-1308.	1.9	37
53	Learned self-regulation of the lesioned brain with epidural electrocorticography. <i>Frontiers in Behavioral Neuroscience</i> , 2014, 8, 429.	1.0	36
54	Self-Regulation of Anterior Insula with Real-Time fMRI and Its Behavioral Effects in Obsessive-Compulsive Disorder: A Feasibility Study. <i>PLoS ONE</i> , 2015, 10, e0135872.	1.1	33

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55	Simultaneous transcranial direct current stimulation (tDCS) and whole-head magnetoencephalography (MEG): assessing the impact of tDCS on slow cortical magnetic fields. <i>NeuroImage</i> , 2016, 140, 33-40.	2.1	30
56	Event-related desynchronization during movement attempt and execution in severely paralyzed stroke patients: An artifact removal relevance analysis. <i>NeuroImage: Clinical</i> , 2018, 20, 972-986.	1.4	30
57	Learned maintenance of pain: Muscle tension reduces central nervous system processing of painful stimulation in chronic and subchronic pain patients. <i>Psychophysiology</i> , 1999, 36, 755-764.	1.2	28
58	Differential effects of aging on explicit and implicit memory. <i>Aging, Neuropsychology, and Cognition</i> , 1997, 4, 33-44.	0.7	26
59	Deficient discrimination of EMG levels and overestimation of perceived tension in chronic pain patients. <i>Applied Psychophysiology Biofeedback</i> , 1999, 24, 55-66.	1.0	26
60	Perception of Emotional Facial Expressions in Amyotrophic Lateral Sclerosis (ALS) at Behavioural and Brain Metabolic Level. <i>PLoS ONE</i> , 2016, 11, e0164655.	1.1	26
61	Epidural electrocorticography of phantom hand movement following long-term upper-limb amputation. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 285.	1.0	22
62	EMG-based multi-joint kinematics decoding for robot-aided rehabilitation therapies. , 2015, .		22
63	Magnetoencephalography in Stroke Recovery and Rehabilitation. <i>Frontiers in Neurology</i> , 2016, 7, 35.	1.1	20
64	Residual Upper Arm Motor Function Primes Innervation of Paretic Forearm Muscles in Chronic Stroke after Brain-Machine Interface (BMI) Training. <i>PLoS ONE</i> , 2015, 10, e0140161.	1.1	20
65	Myofascial triggerpoint release (MTR) for treating chronic shoulder pain: A novel approach. <i>Journal of Bodywork and Movement Therapies</i> , 2016, 20, 614-622.	0.5	19
66	Functional synergy recruitment index as a reliable biomarker of motor function and recovery in chronic stroke patients. <i>Journal of Neural Engineering</i> , 2021, 18, 046061.	1.8	18
67	Simultaneous epidural functional near-infrared spectroscopy and cortical electrophysiology as a tool for studying local neurovascular coupling in primates. <i>NeuroImage</i> , 2015, 120, 394-399.	2.1	17
68	Pain reduction due to novel sensory-motor training in Complex Regional Pain Syndrome I – A pilot study. <i>Scandinavian Journal of Pain</i> , 2017, 15, 30-37.	0.5	17
69	Changes in EEG power spectra during biofeedback of slow cortical potentials in epilepsy. <i>Applied Psychophysiology Biofeedback</i> , 1999, 24, 213-233.	1.0	16
70	Auditory Electrooculogram-based Communication System for ALS Patients in Transition from Locked-in to Complete Locked-in State. <i>Scientific Reports</i> , 2020, 10, 8452.	1.6	16
71	Direct brain communication: neuroelectric and metabolic approaches at Tübingen. <i>Cognitive Processing</i> , 2005, 6, 65-74.	0.7	14
72	Movement-related brain oscillations vary with lesion location in severely paralyzed chronic stroke patients. , 2017, 2017, 1664-1667.		14

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73	Intermittent theta burst stimulation over right somatosensory larynx cortex enhances vocal pitchâ€‘regulation in nonsingers. <i>Human Brain Mapping</i> , 2019, 40, 2174-2187.	1.9	14
74	Semantic and BCI-performance in completely paralyzed patients: Possibility of language attrition in completely locked in syndrome. <i>Brain and Language</i> , 2019, 194, 93-97.	0.8	14
75	Real-Time Subject-Independent Pattern Classification of Overt and Covert Movements from fNIRS Signals. <i>PLoS ONE</i> , 2016, 11, e0159959.	1.1	14
76	Psychophysiological treatment of chronic tinnitus: A review. <i>Clinical Psychology and Psychotherapy</i> , 2022, 29, 1236-1253.	1.4	14
77	Sleep in the completely locked-in state (CLIS) in amyotrophic lateral sclerosis. <i>Sleep</i> , 2019, 42, .	0.6	13
78	Design and effectiveness evaluation of mirror myoelectric interfaces: a novel method to restore movement in hemiplegic patients. <i>Scientific Reports</i> , 2018, 8, 16688.	1.6	11
79	Open Software/Hardware Platform for Human-Computer Interface Based on Electrooculography (EOG) Signal Classification. <i>Sensors</i> , 2020, 20, 2443.	2.1	11
80	A dataset of EEG and EOG from an auditory EOG-based communication system for patients in locked-in state. <i>Scientific Data</i> , 2021, 8, 8.	2.4	11
81	Learning from brain control: clinical application of brainâ€‘computer interfaces. <i>E-Neuroforum</i> , 2015, 6, 87-95.	0.2	10
82	EEG power spectral density in locked-in and completely locked-in state patients: a longitudinal study. <i>Cognitive Neurodynamics</i> , 2021, 15, 473-480.	2.3	10
83	Brain Computer Interfaces for Assisted Communication in Paralysis and Quality of Life. <i>International Journal of Neural Systems</i> , 2021, 31, 2130003.	3.2	10
84	Epidural electrocorticography for monitoring of arousal in locked-in state. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 861.	1.0	8
85	Neurophysiological aspects of the completely locked-in syndrome in patients with advanced amyotrophic lateral sclerosis. <i>Clinical Neurophysiology</i> , 2021, 132, 1064-1076.	0.7	8
86	BRAIN-COMPUTER INTERFACES FOR VERBAL COMMUNICATION. <i>Series on Bioengineering and Biomedical Engineering</i> , 2004, , 1146-1157.	0.1	8
87	A new hand assessment instrument for severely affected stroke patients. <i>NeuroRehabilitation</i> , 2014, 34, 409-427.	0.5	7
88	Neural mechanisms of savant calendar calculating in autism: An MEG-study of few single cases. <i>Brain and Cognition</i> , 2014, 90, 157-164.	0.8	7
89	Applied psychophysiology and learned physiological regulation. <i>Applied Psychophysiology Biofeedback</i> , 1999, 24, 35-37.	1.0	6
90	On the extraction of purely motor EEG neural correlates during an upper limb visuomotor task. <i>Cerebral Cortex</i> , 2022, 32, 4243-4254.	1.6	6

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91	Sensorimotor rhythm modulation depends on resting-state oscillations and cortex integrity in severely paralyzed stroke patients. , 2019, , .		5
92	Balancing the brain of offenders with psychopathy? Resting state EEG and electrodermal activity after a pilot study of brain self-regulation training. PLoS ONE, 2021, 16, e0242830.	1.1	5
93	A 20-Questions-Based Binary Spelling Interface for Communication Systems. Brain Sciences, 2018, 8, 126.	1.1	4
94	The physiology of brain-computer interfaces. Journal of Physiology, 2007, 579, 570-570.	1.3	3
95	For distinguished contributions to psychophysiology: Robert M. Stern. Psychophysiology, 2007, 44, 1.	1.2	3
96	Memory: Reconsolidation Allows Modification of Motor Memories. Current Biology, 2010, 20, R709-R710.	1.8	3
97	A useful communication in brain-computer interfaces. Neurology, 2018, 91, 109-110.	1.5	3
98	Self-Myofascial Vibro-Shearing: a Randomized Controlled Trial of Biomechanical and Related Changes in Male Breakdancers. Sports Medicine - Open, 2018, 4, 13.	1.3	3
99	Spatial characteristics of spontaneous and stimulus-induced individual functional connectivity networks in severe disorders of consciousness. Brain and Cognition, 2019, 131, 10-21.	0.8	3
100	Real-time monitoring and regulating auditory cortex alpha activity in patients with chronic tinnitus. Journal of Neural Engineering, 2020, 17, 016032.	1.8	3
101	Learned maintenance of pain: Muscle tension reduces central nervous system processing of painful stimulation in chronic and subchronic pain patients. , 1999, 36, 755.		3
102	A leg to stand on: Learning creates pain. Behavioral and Brain Sciences, 1997, 20, 441-442.	0.4	2
103	Phantom limb pain: a report of two cases. European Journal of Pain, 2001, 5, 449-455.	1.4	2
104	Habit learning and brain-machine interfaces (BMI): a tribute to Valentino Braitenberg's "Vehicles". Biological Cybernetics, 2014, 108, 595-601.	0.6	2
105	Communication in locked-in state after brainstem stroke: a brain-computer-interface approach. Annals of Translational Medicine, 2015, 3, S29.	0.7	2
106	Neural Signatures of Modified Memories. Neuron, 2014, 81, 3-5.	3.8	1
107	Longitudinal Analysis of the Connectivity and Complexity of Complete Locked-in Syndrome Patients Electroencephalographic signal. , 2020, , .		1
108	Affective Cortical Asymmetry at the Early Developmental Emergence of Emotional Expression. ENeuro, 2020, 7, ENEURO.0042-20.2020.	0.9	1

#	ARTICLE	IF	CITATIONS
109	Title is missing!. Applied Psychophysiology Biofeedback, 2001, 26, 331-331.	1.0	0
110	Human motor behaviour and neuroprosthesis control. Cognitive Processing, 2005, 6, 1-2.	0.7	0
111	Tom Budzynski: The Hero of Neurofeedback. Biofeedback, 2011, 39, 146-147.	0.3	0
112	Binary Semantic Classification Using Cortical Activation with Pavlovian-Conditioned Vestibular Responses in Healthy and Locked-In Individuals. Cerebral Cortex Communications, 2021, 2, tgab046.	0.7	0
113	Editorial: The Classification of Thoughts and IJNS. International Journal of Neural Systems, 2021, 31, 2103011.	3.2	0