Eberhard E Fetz

List of Publications by Year
in descending order

73	6,243	87888 38	88630 70
papers	citations	h-index	g-index

85	85	85	5922
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Movement-dependent electrical stimulation for volitional strengthening of cortical connections in behaving monkeys. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	4
2	An Integrate-and-Fire Spiking Neural Network Model Simulating Artificially Induced Cortical Plasticity. ENeuro, 2021, 8, ENEURO.0333-20.2021.	1.9	9
3	Cortical Responses to Vagus Nerve Stimulation Are Modulated by Brain State in Nonhuman Primates. Cerebral Cortex, 2021, 31, 5289-5307.	2.9	7
4	Neurochip3: An Autonomous Multichannel Bidirectional Brain-Computer Interface for Closed-Loop Activity-Dependent Stimulation. Frontiers in Neuroscience, 2021, 15, 718465.	2.8	10
5	Cortical Stimulation Paired With Volitional Unimanual Movement Affects Interhemispheric Communication. Frontiers in Neuroscience, 2021, 15, 782188.	2.8	0
6	Reconfiguring Motor Circuits for a Joint Manual and BCI Task. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2020, 28, 248-257.	4.9	7
7	Inferring Cortical Connectivity From ECoG Signals Using Graph Signal Processing. IEEE Access, 2019, 7, 109349-109362.	4.2	6
8	Phase-Locked Stimulation during Cortical Beta Oscillations Produces Bidirectional Synaptic Plasticity in Awake Monkeys. Current Biology, 2018, 28, 2515-2526.e4.	3.9	75
9	Paired Stimulation for Spike-Timing-Dependent Plasticity in Primate Sensorimotor Cortex. Journal of Neuroscience, 2017, 37, 1935-1949.	3.6	39
10	Operant conditioning of neural activity in freely behaving monkeys with intracranial reinforcement. Journal of Neurophysiology, 2017, 117, 1112-1125.	1.8	15
11	An interspecies comparative study of invasive electrophysiological functional connectivity. Brain and Behavior, 2017, 7, e00863.	2.2	3
12	Help, hope, and hype: Ethical dimensions ofneuroprosthetics. Science, 2017, 356, 1338-1339.	12.6	83
13	Cycle-Triggered Cortical Stimulation during Slow Wave Sleep Facilitates Learning a BMI Task: A Case Report in a Non-Human Primate. Frontiers in Behavioral Neuroscience, 2017, 11, 59.	2.0	8
14	Open-Source, Low Cost, Free-Behavior Monitoring, and Reward System for Neuroscience Research in Non-human Primates. Frontiers in Neuroscience, 2017, 11, 265.	2.8	11
15	Learned control of inter-hemispheric connectivity: Effects on bimanual motor performance. Human Brain Mapping, 2017, 38, 4353-4369.	3.6	20
16	Correlation-based model of artificially induced plasticity in motor cortex by a bidirectional brain-computer interface. PLoS Computational Biology, 2017, 13, e1005343.	3.2	8
17	Exploiting Electrocorticographic Spectral Characteristics for Optimized Signal Chain Design: A 1.08 W Analog Front End With Reduced ADC Resolution Requirements<formula formulatype="inline"> <tex Notation="TeX"/> </formula>. IEEE Transactions on Biomedical Circuits and Systems, 2016, 10, 1171-1180.	4.0	17
18	Cortico-Cortical Interactions during Acquisition and Use of a Neuroprosthetic Skill. PLoS Computational Biology, 2016, 12, e1004931.	3.2	6

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19	Simultaneous epidural functional near-infrared spectroscopy and cortical electrophysiology as a tool for studying local neurovascular coupling in primates. NeuroImage, 2015, 120, 394-399.	4.2	17
20	Restoring motor function with bidirectional neural interfaces. Progress in Brain Research, 2015, 218, 241-252.	1.4	32
21	Sequential activation of premotor, primary somatosensory and primary motor areas in humans during cued finger movements. Clinical Neurophysiology, 2015, 126, 2150-2161.	1.5	54
22	Simultaneous and independent control of a brain-computer interface and contralateral limb movement. Brain-Computer Interfaces, 2015, 2, 174-185.	1.8	14
23	Closed-loop neuroscience and neuroengineering. Frontiers in Neural Circuits, 2014, 8, 115.	2.8	66
24	A spectrum-equalizing analog front end for low-power electrocorticography recording. , 2014, , .		7
25	Volitional muscle activity paired with transcranial magnetic stimulation increases corticospinal excitability. Frontiers in Neuroscience, 2014, 8, 442.	2.8	14
26	Spike-Timing-Dependent Plasticity in Primate Corticospinal Connections Induced during Free Behavior. Neuron, 2013, 80, 1301-1309.	8.1	132
27	Volitional Control of Cortical Oscillations and Synchrony. Neuron, 2013, 77, 216-218.	8.1	35
28	Myo-Cortical Crossed Feedback Reorganizes Primate Motor Cortex Output. Journal of Neuroscience, 2013, 33, 5261-5274.	3.6	46
29	Distributed cortical adaptation during learning of a brain-computer interface task. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10818-10823.	7.1	132
30	Restoration of upper limb movement via artificial corticospinal and musculospinal connections in a monkey with spinal cord injury. Frontiers in Neural Circuits, 2013, 7, 57.	2.8	99
31	Relationships between spike-free local field potentials and spike timing in human temporal cortex. Journal of Neurophysiology, 2012, 107, 1808-1821.	1.8	48
32	Brain State-Dependence of Electrically Evoked Potentials Monitored With Head-Mounted Electronics. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2012, 20, 756-761.	4.9	5
33	Gating of Sensory Input at Spinal and Cortical Levels during Preparation and Execution of Voluntary Movement. Journal of Neuroscience, 2012, 32, 890-902.	3.6	172
34	Artistic explorations of the brain. Frontiers in Human Neuroscience, 2012, 6, 9.	2.0	5
35	Volitional control of single cortical neurons in a brainâ€“machine interface. Journal of Neural Engineering, 2011, 8, 025017.	3.5	62
36	The Neurochip-2: An Autonomous Head-Fixed Computer for Recording and Stimulating in Freely Behaving Monkeys. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2011, 19, 427-435.	4.9	96

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37	Harnessing neuroplasticity for clinical applications. Brain, 2011, 134, 1591-1609.	7.6	907
38	Dynamic Modulation of Local Population Activity by Rhythm Phase in Human Occipital Cortex During a Visual Search Task. Frontiers in Human Neuroscience, 2010, 4, 197.	2.0	65
39	Cortical activity during motor execution, motor imagery, and imagery-based online feedback. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 4430-4435.	7.1	474
40	Motor Cortex Plasticity Driven by Artificial Feedback from an Autonomous, Closed-Loop Neural Implant. Neurosurgery, 2009, 65, 420-421.	1.1	3
41	Task-Dependent Modulation of Primary Afferent Depolarization in Cervical Spinal Cord of Monkeys Performing an Instructed Delay Task. Journal of Neurophysiology, 2009, 102, 85-99.	1.8	23
42	Direct control of paralysed muscles by cortical neurons. Nature, 2008, 456, 639-642.	27.8	545
43	Compact Movable Microwire Array for Long-Term Chronic Unit Recording in Cerebral Cortex of Primates. Journal of Neurophysiology, 2007, 98, 3109-3118.	1.8	159
44	Correlations Between the Same Motor Cortex Cells and Arm Muscles During a Trained Task, Free Behavior, and Natural Sleep in the Macaque Monkey. Journal of Neurophysiology, 2007, 97, 360-374.	1.8	71
45	Forelimb Movements and Muscle Responses Evoked by Microstimulation of Cervical Spinal Cord in Sedated Monkeys. Journal of Neurophysiology, 2007, 97, 110-120.	1.8	96
46	Volitional control of neural activity: implications for brain-computer interfaces. Journal of Physiology, 2007, 579, 571-579.	2.9	212
47	Afferent Encoding of Central Oscillations in the Monkey Arm. Journal of Neurophysiology, 2006, 95, 3904-3910.	1.8	126
48	Long-term motor cortex plasticity induced by an electronic neural implant. Nature, 2006, 444, 56-60.	27.8	413
49	An autonomous implantable computer for neural recording and stimulation in unrestrained primates. Journal of Neuroscience Methods, 2005, 148, 71-77.	2.5	112
50	Characteristic Membrane Potential Trajectories in Primate Sensorimotor Cortex Neurons Recorded In Vivo. Journal of Neurophysiology, 2005, 94, 2713-2725.	1.8	62
51	Sensory input to primate spinal cord is presynaptically inhibited during voluntary movement. Nature Neuroscience, 2003, 6, 1309-1316.	14.8	258
52	Functional Properties of Primate Spinal Interneurones During Voluntary Hand Movements. Advances in Experimental Medicine and Biology, 2002, 508, 265-271.	1.6	8
53	Chapter 17 Distributed processing in the motor system: spinal cord perspective. Progress in Brain Research, 2001, 130, 267-278.	1.4	17
54	Synaptic interactions mediating synchrony and oscillations in primate sensorimotor cortex. Journal of Physiology (Paris), 2000, 94, 323-331.	2.1	46

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55	Functions of mammalian spinal interneurons during movement. Current Opinion in Neurobiology, 2000, 10, 699-707.	4.2	36
56	Real-time control of a robotic arm by neuronal ensembles. Nature Neuroscience, 1999, 2, 583-584.	14.8	58
57	Primate spinal interneurons show pre-movement instructed delay activity. Nature, 1999, 401, 590-594.	27.8	212
58	Activity of Spinal Interneurons and Their Effects on Forearm Muscles During Voluntary Wrist Movements in the Monkey. Journal of Neurophysiology, 1998, 80, 2475-2494.	1.8	104
59	Response Patterns and Force Relations of Monkey Spinal Interneurons During Active Wrist Movement. Journal of Neurophysiology, 1998, 80, 2495-2513.	1.8	60
60	Synaptic Interactions between Primate Precentral Cortex Neurons Revealed by Spike-Triggered Averaging of Intracellular Membrane PotentialsIn Vivo. Journal of Neuroscience, 1996, 16, 7757-7767.	3.6	124
61	Integration and Differentiation in Dynamic Recurrent Neural Networks. Neural Computation, 1994, 6, 405-419.	2.2	6
62	Effects of Input Synchrony on the Firing Rate of a Three-Conductance Cortical Neuron Model. Neural Computation, 1994, 6, 1111-1126.	2.2	66
63	Cortical mechanisms controlling limb movement. Current Opinion in Neurobiology, 1993, 3, 932-939.	4.2	24
64	Chapter 11 Neural mechanisms underlying corticospinal and rubrospinal control of limb movements. Progress in Brain Research, 1991, 87, 213-252.	1.4	152
65	The Motor Cortex. Hiroshi Asanuma. Quarterly Review of Biology, 1990, 65, 527-528.	0.1	0
66	Effects of synchrony between primate corticomotoneuronal cells on post-spike facilitation of muscles and motor units. Neuroscience Letters, 1989, 96, 76-81.	2.1	69
67	Intracortical connectivity revealed by spike-triggered averaging in slice preparations of cat visual cortex. Brain Research, 1988, 442, 359-362.	2.2	58
68	Encoding of motor parameters by corticomotoneuronal (CM) and rubromotoneuronal (RM) cells producing postspike facilitation of forelimb muscles in the behaving monkey. Behavioural Brain Research, 1988, 28, 181-191.	2.2	82
69	Responses of primate locus coeruleus and subcoeruleus neurons to stimulation at reinforcing brain sites and to natural reinforcers. Brain Research, 1976, 109, 497-514.	2.2	38
70	Firing patterns of epileptic and normal neurons in the chronic alumina focus in undrugged monkeys during different behavioral states. Brain Research, 1975, 98, 1-20.	2.2	103
71	An electronic activity integrator for operant conditioning of patterns of neural and muscular activity. Electroencephalography and Clinical Neurophysiology, 1975, 38, 87-89.	0.3	5
72	Unit responses recorded from cervical spinal cord of awake monkey. Brain Research, 1973, 53, 445-450.	2.2	14

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73	Operant conditioning of isolated activity in specific muscles and precentral cells. Brain Research, 1972, 40, 19-23.	2.2	70