Marcello Massimini

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8268934/publications.pdf

Version: 2024-02-01

111 papers	18,931 citations	23567 58 h-index	33894 99 g-index
121 all docs	121 docs citations	121 times ranked	11431 citing authors

#	Article	IF	Citations
1	The rt-TEP tool: real-time visualization of TMS-Evoked Potentials to maximize cortical activation and minimize artifacts. Journal of Neuroscience Methods, 2022, 370, 109486.	2.5	46
2	Quantifying arousal and awareness in altered states of consciousness using interpretable deep learning. Nature Communications, 2022, 13, 1064.	12.8	29
3	Measures of differentiation and integration: One step closer to consciousness. Behavioral and Brain Sciences, 2022, 45, e54.	0.7	0
4	Mechanisms Underlying Disorders of Consciousness: Bridging Gaps to Move Toward an Integrated Translational Science. Neurocritical Care, 2021, 35, 37-54.	2.4	38
5	Spontaneous and Perturbational Complexity in Cortical Cultures. Brain Sciences, 2021, 11, 1453.	2.3	12
6	Are There Islands of Awareness?. Trends in Neurosciences, 2020, 43, 6-16.	8.6	54
7	Local sleep-like cortical reactivity in the awake brain after focal injury. Brain, 2020, 143, 3672-3684.	7.6	69
8	Subcortical atrophy correlates with the perturbational complexity index in patients with disorders of consciousness. Brain Stimulation, 2020, 13, 1426-1435.	1.6	20
9	Simultaneous human intracerebral stimulation and HD-EEG, ground-truth for source localization methods. Scientific Data, 2020, 7, 127.	5.3	33
10	Cortical Excitability, Plasticity and Oscillations in Major Psychiatric Disorders: A Neuronavigated TMS-EEG Based Approach. , 2020, , 209-222.		1
11	Reproducibility in TMSâ€“EEG studies: A call for data sharing, standard procedures and effective experimental control. Brain Stimulation, 2019, 12, 787-790.	1.6	106
12	A fast and general method to empirically estimate the complexity of brain responses to transcranial and intracranial stimulations. Brain Stimulation, 2019, 12, 1280-1289.	1.6	64
13	Sleep as a model to understand neuroplasticity and recovery after stroke: Observational, perturbational and interventional approaches. Journal of Neuroscience Methods, 2019, 313, 37-43.	2.5	13
14	Assessing recurrent interactions in cortical networks: Modeling EEG response to transcranial magnetic stimulation. Journal of Neuroscience Methods, 2019, 312, 93-104.	2.5	8
15	The spectral exponent of the resting EEG indexes the presence of consciousness during unresponsiveness induced by propofol, xenon, and ketamine. NeuroImage, 2019, 189, 631-644.	4.2	185
16	Cerebral organoids: ethical issues and consciousness assessment. Journal of Medical Ethics, 2018, 44, 606-610.	1.8	101
17	Human fronto-parietal response scattering subserves vigilance at night. NeuroImage, 2018, 175, 354-364.	4.2	18
18	Bistability, Causality, and Complexity in Cortical Networks: An In Vitro Perturbational Study. Cerebral Cortex, 2018, 28, 2233-2242.	2.9	58

#	Article	IF	Citations
19	Global structural integrity and effective connectivity in patients with disorders of consciousness. Brain Stimulation, 2018, 11, 358-365.	1.6	39
20	Meditation-induced modulation of brain response to transcranial magnetic stimulation. Brain Stimulation, 2018, 11, 1397-1400.	1.6	12
21	Cerebral organoids and consciousness: how far are we willing to go?. Journal of Medical Ethics, 2018, 44, 613-614.	1.8	25
22	Tracking Dynamic Interactions Between Structural and Functional Connectivity: A TMS/EEG-dMRI Study. Brain Connectivity, 2017, 7, 84-97.	1.7	23
23	Measures of metabolism and complexity in the brain of patients with disorders of consciousness. NeuroImage: Clinical, 2017, 14, 354-362.	2.7	133
24	Shaping the Default Activity Pattern of the Cortical Network. Neuron, 2017, 94, 993-1001.	8.1	123
25	Are the Neural Correlates of Consciousness in the Front or in the Back of the Cerebral Cortex? Clinical and Neuroimaging Evidence. Journal of Neuroscience, 2017, 37, 9603-9613.	3.6	360
26	Consciousness Regained: Disentangling Mechanisms, Brain Systems, and Behavioral Responses. Journal of Neuroscience, 2017, 37, 10882-10893.	3.6	92
27	Global and local complexity of intracranial EEG decreases during NREM sleep. Neuroscience of Consciousness, 2017, 2017, niw022.	2.6	94
28	The spectral features of EEG responses to transcranial magnetic stimulation of the primary motor cortex depend on the amplitude of the motor evoked potentials. PLoS ONE, 2017, 12, e0184910.	2.5	104
29	The Potential of nTMS/EEG: Measuring Consciousness. , 2017, , 257-265.		0
30	Circadian regulation of human cortical excitability. Nature Communications, 2016, 7, 11828.	12.8	146
31	Integrated information theory: from consciousness to its physical substrate. Nature Reviews Neuroscience, 2016, 17, 450-461.	10.2	930
32	Neural correlates of consciousness: progress and problems. Nature Reviews Neuroscience, 2016, 17, 307-321.	10.2	966
33	Stratification of unresponsive patients by an independently validated index of brain complexity. Annals of Neurology, 2016, 80, 718-729.	5.3	309
34	Posterior and anterior cortex â€" where is the difference that makes the difference?. Nature Reviews Neuroscience, 2016, 17, 666-666.	10.2	51
35	Consciousness and cortical responsiveness: a within-state study during non-rapid eye movement sleep. Scientific Reports, 2016, 6, 30932.	3.3	51
36	Circadian dynamics in measures of cortical excitation and inhibition balance. Scientific Reports, 2016, 6, 33661.	3.3	58

#	Article	IF	Citations
37	Exploring the Neurophysiological Correlates of Loss and Recovery of Consciousness: Perturbational Complexity. , 2016, , 93-104.		5
38	Functional Neuroimaging Techniques. , 2016, , 31-47.		1
39	Stimulus Set Meaningfulness and Neurophysiological Differentiation: A Functional Magnetic Resonance Imaging Study. PLoS ONE, 2015, 10, e0125337.	2.5	69
40	Consensus Paper: Probing Homeostatic Plasticity of Human Cortex With Non-invasive Transcranial Brain Stimulation. Brain Stimulation, 2015, 8, 442-454.	1.6	138
41	Consensus Paper: Probing Homeostatic Plasticity of Human Cortex With Non-invasive Transcranial Brain Stimulation. Brain Stimulation, 2015, 8, 993-1006.	1.6	103
42	Erratum to â€œConsensus Paper: Probing Homeostatic Plasticity of Human Cortex With Non-invasive Transcranial Brain Stimulationâ€• Brain Stimulation 8 (2015) 442â€“454. Brain Stimulation, 2015, 8, 992.	1.6	4
43	Shared reduction of oscillatory natural frequencies in bipolar disorder, major depressive disorder and schizophrenia. Journal of Affective Disorders, 2015, 184, 111-115.	4.1	47
44	Bistability breaks-off deterministic responses to intracortical stimulation during non-REM sleep. NeuroImage, 2015, 112, 105-113.	4.2	157
45	Transcranial Magnetic Stimulation and Electroencephalography. , 2015, , 125-132.		0
46	Consciousness and Complexity during Unresponsiveness Induced by Propofol, Xenon, and Ketamine. Current Biology, 2015, 25, 3099-3105.	3.9	308
47	On the Cerebral Origin of EEG Responses to TMS: Insights From Severe Cortical Lesions. Brain Stimulation, 2015, 8, 142-149.	1.6	87
48	Fluid boundaries between wake and sleep: experimental evidence from stereo-EEG recordings. Archives Italiennes De Biologie, 2015, 152, 169-77.	0.4	28
49	Transcranial magnetic stimulation combined with high-density EEG in altered states of consciousness. Brain Injury, 2014, 28, 1180-1189.	1.2	39
50	Directed Information Transfer in Scalp Electroencephalographic Recordings. Clinical EEG and Neuroscience, 2014, 45, 33-39.	1.7	32
51	Hippocampal sleep spindles preceding neocortical sleep onset in humans. NeuroImage, 2014, 86, 425-432.	4.2	92
52	Assessing consciousness in coma and related states using transcranial magnetic stimulation combined with electroencephalography. Annales Francaises D'Anesthesie Et De Reanimation, 2014, 33, 65-71.	1.4	41
53	Quantifying Cortical EEG Responses to TMS in (Un)consciousness. Clinical EEG and Neuroscience, 2014, 45, 40-49.	1.7	116
54	Reduced mediodorsal thalamic volume and prefrontal cortical spindle activity in schizophrenia. NeuroImage, 2014, 102, 540-547.	4.2	67

#	Article	IF	Citations
55	Human Cortical Excitability Increases with Time Awake. Cerebral Cortex, 2013, 23, 1-7.	2.9	229
56	Sleep and Consciousness. , 2013, , 133-182.		21
57	Using Brain Stimulation to Create Thoughts, Retrieve and Alter Memories, and Measure Consciousness â€“ A Discussion of Recent Research. Brain Stimulation, 2013, 6, 835-836.	1.6	3
58	Assessing the Effects of Electroconvulsive Therapy on Cortical Excitability by Means of Transcranial Magnetic Stimulation and Electroencephalography. Brain Topography, 2013, 26, 326-337.	1.8	77
59	Sparse multivariate autoregressive models with exogenous inputs for modeling intracerebral responses to direct electrical stimulation of the human brain. , 2013, , .		1
60	The PredictAD project: development of novel biomarkers and analysis software for early diagnosis of the Alzheimer's disease. Interface Focus, 2013, 3, 20120072.	3.0	26
61	A Theoretically Based Index of Consciousness Independent of Sensory Processing and Behavior. Science Translational Medicine, 2013, 5, 198ra105.	12.4	839
62	Recovery of cortical effective connectivity and recovery of consciousness in vegetative patients. Brain, 2012, 135, 1308-1320.	7.6	400
63	Reduced Natural Oscillatory Frequency of Frontal Thalamocortical Circuits in Schizophrenia. Archives of General Psychiatry, 2012, 69, 766-74.	12.3	130
64	Brain Connectivity in Disorders of Consciousness. Brain Connectivity, 2012, 2, 1-10.	1.7	85
65	Using Transcranial Magnetic Stimulation to Measure Cerebral Connectivity in Patients with Disorders of Consciousness. , 2012, , 79-84.		0
66	Slow EEG rhythms and inter-hemispheric synchronization across sleep and wakefulness in the human hippocampus. NeuroImage, 2012, 60, 497-504.	4.2	52
67	Multivariate autoregressive models with exogenous inputs for intracerebral responses to direct electrical stimulation of the human brain. Frontiers in Human Neuroscience, 2012, 6, 317.	2.0	32
68	Computational Study of Rhythm Propagation Induced by TMS Stimuli in Different Brain Regions. Studies in Computational Intelligence, 2012, , 389-403.	0.9	0
69	A neural mass model of interconnected regions simulates rhythm propagation observed via TMS-EEG. NeuroImage, 2011, 57, 1045-1058.	4.2	76
70	Preserved Feedforward But Impaired Top-Down Processes in the Vegetative State. Science, 2011, 332, 858-862.	12.6	444
71	Propofol Anesthesia and Sleep: A High-Density EEG Study. Sleep, 2011, 34, 283-291.	1.1	326
72	Transcranial magnetic stimulation-evoked EEG/cortical potentials in physiological and pathological aging. NeuroReport, 2011, 22, 592-597.	1.2	62

#	Article	IF	Citations
73	Combining Transcranial Magnetic Stimulation with Electroencephalography to Study Human Cortical Excitability and Effective Connectivity. Neuromethods, 2011, , 435-457.	0.3	15
74	Timeâ€“frequency spectral analysis of TMS-evoked EEG oscillations by means of Hilbertâ€“Huang transform. Journal of Neuroscience Methods, 2011, 198, 236-245.	2.5	47
75	Electrophysiological correlates of behavioural changes in vigilance in vegetative state and minimally conscious state. Brain, 2011, 134, 2222-2232.	7.6	128
76	Response to Comment on â€œPreserved Feedforward But Impaired Top-Down Processes in the Vegetative Stateâ€. Science, 2011, 334, 1203-1203.	12.6	45
77	New Insights into Alzheimer's Disease Progression: A Combined TMS and Structural MRI Study. PLoS ONE, 2011, 6, e26113.	2.5	44
78	The Cortical Topography of Local Sleep. Current Topics in Medicinal Chemistry, 2011, 11, 2438-2446.	2.1	45
79	EEG Responses to TMS Are Sensitive to Changes in the Perturbation Parameters and Repeatable over Time. PLoS ONE, 2010, 5, e10281.	2.5	181
80	Breakdown in cortical effective connectivity during midazolam-induced loss of consciousness. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 2681-2686.	7.1	464
81	General indices to characterize the electrical response of the cerebral cortex to TMS. NeuroImage, 2010, 49, 1459-1468.	4.2	130
82	Cortical reactivity and effective connectivity during REM sleep in humans. Cognitive Neuroscience, 2010, 1, 176-183.	1.4	167
83	Source modeling sleep slow waves. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1608-1613.	7.1	400
84	Consensus paper: Combining transcranial stimulation with neuroimaging. Brain Stimulation, 2009, 2, 58-80.	1.6	299
85	Augmentative repetitive navigated transcranial magnetic stimulation (rTMS) in drugâ€resistant bipolar depression. Bipolar Disorders, 2009, 11, 76-81.	1.9	121
86	Slow waves, synaptic plasticity and information processing: insights from transcranial magnetic stimulation and highâ€density EEG experiments. European Journal of Neuroscience, 2009, 29, 1761-1770.	2.6	114
87	Natural Frequencies of Human Corticothalamic Circuits. Journal of Neuroscience, 2009, 29, 7679-7685.	3.6	569
88	A perturbational approach for evaluating the brain's capacity for consciousness. Progress in Brain Research, 2009, 177, 201-214.	1.4	130
89	Theoretical approaches to the diagnosis of altered states of consciousness. Progress in Brain Research, 2009, 177, 383-398.	1.4	44
90	Why Does Consciousness Fade in Early Sleep?. Annals of the New York Academy of Sciences, 2008, 1129, 330-334.	3.8	97

#	Article	IF	Citations
91	The slow-wave components of the cyclic alternating pattern (CAP) have a role in sleep-related learning processes. Neuroscience Letters, 2008, 432, 228-231.	2.1	67
92	Reduced Evoked Gamma Oscillations in the Frontal Cortex in Schizophrenia Patients: A TMS/EEG Study. American Journal of Psychiatry, 2008, 165, 996-1005.	7.2	202
93	Triggering sleep slow waves by transcranial magnetic stimulation. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8496-8501.	7.1	409
94	Reduced Sleep Spindle Activity in Schizophrenia Patients. American Journal of Psychiatry, 2007, 164, 483-492.	7.2	434
95	TMS-Induced Cortical Potentiation during Wakefulness Locally Increases Slow Wave Activity during Sleep. PLoS ONE, 2007, 2, e276.	2.5	196
96	Sleep Homeostasis and Cortical Synchronization: III. A High-Density EEG Study of Sleep Slow Waves in Humans. Sleep, 2007, 30, 1643-1657.	1.1	364
97	Repetitive Transcranial Magnetic Stimulation Dissociates Working Memory Manipulation from Retention Functions in the Prefrontal, but not Posterior Parietal, Cortex. Journal of Cognitive Neuroscience, 2006, 18, 1712-1722.	2.3	135
98	A direct demonstration of cortical LTP in humans: A combined TMS/EEG study. Brain Research Bulletin, 2006, 69, 86-94.	3.0	311
99	Sleepy Dialogues between Cortex and Hippocampus: Who Talks to Whom?. Neuron, 2006, 52, 748-749.	8.1	28
100	Arm immobilization causes cortical plastic changes and locally decreases sleep slow wave activity. Nature Neuroscience, 2006, 9, 1169-1176.	14.8	529
101	Breakdown of Cortical Effective Connectivity During Sleep. Science, 2005, 309, 2228-2232.	12.6	1,362
102	The Sleep Slow Oscillation as a Traveling Wave. Journal of Neuroscience, 2004, 24, 6862-6870.	3.6	1,002
103	Local sleep and learning. Nature, 2004, 430, 78-81.	27.8	1,689
104	A [17F]-fluoromethane PET/TMS study of effective connectivity. Brain Research Bulletin, 2004, 64, 103-113.	3.0	52
105	EEG Slow (â^¼1 Hz) Waves Are Associated With Nonstationarity of Thalamo-Cortical Sensory Processing in the Sleeping Human. Journal of Neurophysiology, 2003, 89, 1205-1213.	1.8	103
106	Glial and Neuronal Interactions during Slow Wave and Paroxysmal Activities in the Neocortex. Cerebral Cortex, 2002, 12, 1101-1113.	2.9	86
107	Spatial Buffering during Slow and Paroxysmal Sleep Oscillations in Cortical Networks of Glial CellsIn Vivo. Journal of Neuroscience, 2002, 22, 1042-1053.	3.6	184
108	Extracellular Calcium Fluctuations and Intracellular Potentials in the Cortex During the Slow Sleep Oscillation. Journal of Neurophysiology, 2001, 85, 1346-1350.	1.8	136

#	Article	IF	Citations
109	Effects of Spinal Section and of Positive-Feedback Excitatory Reflex on Sympathetic and Heart Rate Variability. Hypertension, 2000, 36, 1029-1034.	2.7	38
110	COMPLESSITÃƒâ‚¬ E COSCIENZA: DALLA TEORIA AL LETTO DEL PAZIENTE. Istituto Lombardo - Accademia Di Scienze E Lettere - Incontri Di Studio, 0, , .	0.0	0
111	Consciousness and complexity: a consilience of evidence. Neuroscience of Consciousness, 0, , .	2.6	41