

# Sven Bestmann

## List of Publications by Citations

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**Version:** 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

78  
papers

4,052  
citations

33  
h-index

63  
g-index

92  
ext. papers

5,429  
ext. citations

6.1  
avg, IF

5.82  
L-index

#	Paper	IF	Citations
78	Moving magnetoencephalography towards real-world applications with a wearable system. <i>Nature</i> , <b>2018</b> , 555, 657-661	50.4	458
77	Dopamine, affordance and active inference. <i>PLoS Computational Biology</i> , <b>2012</b> , 8, e1002327	5	208
76	The uses and interpretations of the motor-evoked potential for understanding behaviour. <i>Experimental Brain Research</i> , <b>2015</b> , 233, 679-89	2.3	178
75	Trial-by-trial fluctuations in the event-related electroencephalogram reflect dynamic changes in the degree of surprise. <i>Journal of Neuroscience</i> , <b>2008</b> , 28, 12539-45	6.6	168
74	Mapping causal interregional influences with concurrent TMS-fMRI. <i>Experimental Brain Research</i> , <b>2008</b> , 191, 383-402	2.3	159
73	Understanding the behavioural consequences of noninvasive brain stimulation. <i>Trends in Cognitive Sciences</i> , <b>2015</b> , 19, 13-20	14	156
72	The role of contralesional dorsal premotor cortex after stroke as studied with concurrent TMS-fMRI. <i>Journal of Neuroscience</i> , <b>2010</b> , 30, 11926-37	6.6	148
71	Dorsal premotor cortex exerts state-dependent causal influences on activity in contralateral primary motor and dorsal premotor cortex. <i>Cerebral Cortex</i> , <b>2008</b> , 18, 1281-91	5.1	147
70	Computations of uncertainty mediate acute stress responses in humans. <i>Nature Communications</i> , <b>2016</b> , 7, 10996	17.4	139
69	Adaptive deep brain stimulation for Parkinson's disease demonstrates reduced speech side effects compared to conventional stimulation in the acute setting. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2016</b> , 87, 1388-1389	5.5	130
68	Safety and recommendations for TMS use in healthy subjects and patient populations, with updates on training, ethical and regulatory issues: Expert Guidelines. <i>Clinical Neurophysiology</i> , <b>2021</b> , 132, 269-306	4.3	130
67	Neural Signatures of Value Comparison in Human Cingulate Cortex during Decisions Requiring an Effort-Reward Trade-off. <i>Journal of Neuroscience</i> , <b>2016</b> , 36, 10002-15	6.6	115
66	Hemispheric differences in frontal and parietal influences on human occipital cortex: direct confirmation with concurrent TMS-fMRI. <i>Journal of Cognitive Neuroscience</i> , <b>2009</b> , 21, 1146-61	3.1	105
65	Influence of uncertainty and surprise on human corticospinal excitability during preparation for action. <i>Current Biology</i> , <b>2008</b> , 18, 775-780	6.3	102
64	Time-dependent changes in human corticospinal excitability reveal value-based competition for action during decision processing. <i>Journal of Neuroscience</i> , <b>2012</b> , 32, 8373-82	6.6	84
63	Incomplete evidence that increasing current intensity of tDCS boosts outcomes. <i>Brain Stimulation</i> , <b>2018</b> , 11, 310-321	5.1	83
62	Spatial attention changes excitability of human visual cortex to direct stimulation. <i>Current Biology</i> , <b>2007</b> , 17, 134-9	6.3	81

61	tDCS changes in motor excitability are specific to orientation of current flow. <i>Brain Stimulation</i> , <b>2018</b> , 11, 289-298	5.1	80
60	S231. THE ROLE OF DOPAMINERGIC AND GLUTAMATERGIC NEUROTRANSMISSION IN DELUSIONAL IDEATION AND SENSORY INFORMATION PROCESSING OF PATIENTS WITH SCHIZOPHRENIA IN COMPARISON TO HEALTHY HUMAN PARTICIPANTS. <i>Schizophrenia Bulletin</i> , <b>2018</b> , 44, S416-S416	1.3	78
59	Transcranial Magnetic Stimulation: Decomposing the Processes Underlying Action Preparation. <i>Neuroscientist</i> , <b>2016</b> , 22, 392-405	7.6	75
58	Behavioral modeling of human choices reveals dissociable effects of physical effort and temporal delay on reward devaluation. <i>PLoS Computational Biology</i> , <b>2015</b> , 11, e1004116	5	72
57	Combined neurostimulation and neuroimaging in cognitive neuroscience: past, present, and future. <i>Annals of the New York Academy of Sciences</i> , <b>2013</b> , 1296, 11-30	6.5	71
56	High precision anatomy for MEG. <i>NeuroImage</i> , <b>2014</b> , 86, 583-91	7.9	67
55	The physiological basis of transcranial magnetic stimulation. <i>Trends in Cognitive Sciences</i> , <b>2008</b> , 12, 81-3	14	67
54	Human motor cortical beta bursts relate to movement planning and response errors. <i>PLoS Biology</i> , <b>2019</b> , 17, e3000479	9.7	59
53	Pharmacological Fingerprints of Contextual Uncertainty. <i>PLoS Biology</i> , <b>2016</b> , 14, e1002575	9.7	55
52	Discrimination of cortical laminae using MEG. <i>NeuroImage</i> , <b>2014</b> , 102 Pt 2, 885-93	7.9	54
51	Causal evidence that intrinsic beta-frequency is relevant for enhanced signal propagation in the motor system as shown through rhythmic TMS. <i>NeuroImage</i> , <b>2016</b> , 126, 120-30	7.9	51
50	Reward and punishment enhance motor adaptation in stroke. <i>Journal of Neurology, Neurosurgery and Psychiatry</i> , <b>2017</b> , 88, 730-736	5.5	49
49	Flexible head-casts for high spatial precision MEG. <i>Journal of Neuroscience Methods</i> , <b>2017</b> , 276, 38-45	3	48
48	Transcranial electrical stimulation. <i>Current Biology</i> , <b>2017</b> , 27, R1258-R1262	6.3	45
47	Dose-controlled tDCS reduces electric field intensity variability at a cortical target site. <i>Brain Stimulation</i> , <b>2020</b> , 13, 125-136	5.1	42
46	On the Use of Meta-analysis in Neuromodulatory Non-invasive Brain Stimulation. <i>Brain Stimulation</i> , <b>2015</b> , 8, 666-7	5.1	34
45	Using generative models to make probabilistic statements about hippocampal engagement in MEG. <i>NeuroImage</i> , <b>2017</b> , 149, 468-482	7.9	33
44	Cognitive neuroscience using wearable magnetometer arrays: Non-invasive assessment of language function. <i>NeuroImage</i> , <b>2018</b> , 181, 513-520	7.9	33

43	Action reprogramming in Parkinson's disease: response to prediction error is modulated by levels of dopamine. <i>Journal of Neuroscience</i> , <b>2012</b> , 32, 542-50	6.6	33
42	Non-invasive laminar inference with MEG: Comparison of methods and source inversion algorithms. <i>NeuroImage</i> , <b>2018</b> , 167, 372-383	7.9	30
41	A novel coil array for combined TMS/fMRI experiments at 3 T. <i>Magnetic Resonance in Medicine</i> , <b>2015</b> , 74, 1492-501	4.4	29
40	Understanding the nonlinear physiological and behavioral effects of tDCS through computational neurostimulation. <i>Progress in Brain Research</i> , <b>2015</b> , 222, 75-103	2.9	26
39	The Role of Dopamine in Temporal Uncertainty. <i>Journal of Cognitive Neuroscience</i> , <b>2016</b> , 28, 96-110	3.1	26
38	Lamina-specific cortical dynamics in human visual and sensorimotor cortices. <i>ELife</i> , <b>2018</b> , 7,	8.9	26
37	Response repetition biases in human perceptual decisions are explained by activity decay in competitive attractor models. <i>ELife</i> , <b>2016</b> , 5,	8.9	24
36	Are current flow models for transcranial electrical stimulation fit for purpose?. <i>Brain Stimulation</i> , <b>2017</b> , 10, 865-866	5.1	23
35	The role of dopamine in motor flexibility. <i>Journal of Cognitive Neuroscience</i> , <b>2015</b> , 27, 365-76	3.1	20
34	Using optically pumped magnetometers to measure magnetoencephalographic signals in the human cerebellum. <i>Journal of Physiology</i> , <b>2019</b> , 597, 4309-4324	3.9	19
33	Acute stress selectively impairs learning to act. <i>Scientific Reports</i> , <b>2016</b> , 6, 29816	4.9	17
32	Mouth magnetoencephalography: A unique perspective on the human hippocampus. <i>NeuroImage</i> , <b>2021</b> , 225, 117443	7.9	16
31	Emotional valence and contextual affordances flexibly shape approach-avoidance movements. <i>Frontiers in Psychology</i> , <b>2013</b> , 4, 933	3.4	14
30	Action boosts episodic memory encoding in humans via engagement of a noradrenergic system. <i>Nature Communications</i> , <b>2019</b> , 10, 3534	17.4	13
29	Pharmacological Dopamine Manipulation Does Not Alter Reward-Based Improvements in Memory Retention during a Visuomotor Adaptation Task. <i>ENeuro</i> , <b>2018</b> , 5,	3.9	11
28	Computing Value from Quality and Quantity in Human Decision-Making. <i>Journal of Neuroscience</i> , <b>2019</b> , 39, 163-176	6.6	10
27	Training in the practice of noninvasive brain stimulation: Recommendations from an IFCN committee. <i>Clinical Neurophysiology</i> , <b>2021</b> , 132, 819-837	4.3	10
26	Dissecting Transient Burst Events. <i>Trends in Cognitive Sciences</i> , <b>2020</b> , 24, 784-788	14	9

25	Cerebellar tDCS dissociates the timing of perceptual decisions from perceptual change in speech. <i>Journal of Neurophysiology</i> , <b>2016</b> , 116, 2023-2032	3.2	8
24	Computational neurostimulation for Parkinson's disease. <i>Progress in Brain Research</i> , <b>2015</b> , 222, 163-90	2.9	7
23	Estimates of cortical column orientation improve MEG source inversion. <i>NeuroImage</i> , <b>2020</b> , 216, 116862	7.9	7
22	Quantifying the performance of MEG source reconstruction using resting state data. <i>NeuroImage</i> , <b>2018</b> , 181, 453-460	7.9	7
21	Age-dependent Pavlovian biases influence motor decision-making. <i>PLoS Computational Biology</i> , <b>2018</b> , 14, e1006304	5	7
20	Neurodynamic Evidence Supports a Forced-Excursion Model of Decision-Making under Speed/Accuracy Instructions. <i>ENeuro</i> , <b>2018</b> , 5,	3.9	6
19	Learning from the past and expecting the future in Parkinsonism: Dopaminergic influence on predictions about the timing of future events. <i>Neuropsychologia</i> , <b>2019</b> , 127, 9-18	3.2	6
18	The Evidence Information Service as a new platform for supporting evidence-based policy: a consultation of UK parliamentarians. <i>Evidence and Policy</i> , <b>2017</b> , 13, 275-316	2.1	5
17	The Neurodynamic Decision Variable in Human Multi-alternative Perceptual Choice. <i>Journal of Cognitive Neuroscience</i> , <b>2019</b> , 31, 262-277	3.1	5
16	Glutamatergic Contribution to Probabilistic Reasoning and Jumping to Conclusions in Schizophrenia: A Double-Blind, Randomized Experimental Trial. <i>Biological Psychiatry</i> , <b>2020</b> , 88, 687-697	7.9	4
15	Forget-me-some: General versus special purpose models in a hierarchical probabilistic task. <i>PLoS ONE</i> , <b>2018</b> , 13, e0205974	3.7	4
14	Uncoupling Sensation and Perception in Human Time Processing. <i>Journal of Cognitive Neuroscience</i> , <b>2020</b> , 32, 1369-1380	3.1	3
13	Laminar dynamics of high amplitude beta bursts in human motor cortex. <i>NeuroImage</i> , <b>2021</b> , 242, 118479	7.9	3
12	Centroparietal activity mirrors the decision variable when tracking biased and time-varying sensory evidence. <i>Cognitive Psychology</i> , <b>2020</b> , 122, 101321	3.1	2
11	Journal Club: possible role of the basal ganglia in poor reward sensitivity and apathy after stroke. <i>Neurology</i> , <b>2014</b> , 82, e171-3	6.5	2
10	A new unified framework for making and implementing decisions. <i>Journal of Neuroscience</i> , <b>2006</b> , 26, 13121-2; discussion 13121	6.6	2
9	Neural signatures of value comparison in human cingulate cortex during decisions requiring an effort-reward trade-off		2
8	Dose-controlled tDCS reduces electric field intensity variability at a cortical target site		2

7	Estimates of cortical column orientation improve MEG source inversion		2
6	The impact of brain lesions on tDCS-induced electric field magnitude		2
5	Neurostimulation: a new way to influence cortical excitability?. <i>Current Biology</i> , <b>2011</b> , 21, R893-4	6.3	1
4	Laminar dynamics of beta bursts in human motor cortex		1
3	A range of pulses commonly used for human transcranial ultrasound stimulation are clearly audible. <i>Brain Stimulation</i> , <b>2021</b> , 14, 1353-1355	5.1	1
2	Differences in outcomes following an intensive upper-limb rehabilitation program for patients with common central nervous system-acting drug prescriptions. <i>International Journal of Stroke</i> , <b>2021</b> , 17474930211006287	6.3	1
1	The Neurodynamic Decision Variable in Human Multi-Alternative Perceptual Choice. <i>Journal of Vision</i> , <b>2018</b> , 18, 661	0.4	