

Melanie Boly

List of Publications by Citations

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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.

135
papers

15,519
citations

63
h-index

124
g-index

146
ext. papers

19,143
ext. citations

7.3
avg, IF

6.37
L-index

#	Paper	IF	Citations
135	Detecting awareness in the vegetative state. <i>Science</i> , 2006 , 313, 1402	33.3	1037
134	Willful modulation of brain activity in disorders of consciousness. <i>New England Journal of Medicine</i> , 2010 , 362, 579-89	59.2	937
133	Diagnostic accuracy of the vegetative and minimally conscious state: clinical consensus versus standardized neurobehavioral assessment. <i>BMC Neurology</i> , 2009 , 9, 35	3.1	702
132	Neural correlates of consciousness: progress and problems. <i>Nature Reviews Neuroscience</i> , 2016 , 17, 307-21	21.5	591
131	Default network connectivity reflects the level of consciousness in non-communicative brain-damaged patients. <i>Brain</i> , 2010 , 133, 161-71	11.2	574
130	A theoretically based index of consciousness independent of sensory processing and behavior. <i>Science Translational Medicine</i> , 2013 , 5, 198ra105	17.5	553
129	Integrated information theory: from consciousness to its physical substrate. <i>Nature Reviews Neuroscience</i> , 2016 , 17, 450-61	13.5	543
128	Breakdown of within- and between-network resting state functional magnetic resonance imaging connectivity during propofol-induced loss of consciousness. <i>Anesthesiology</i> , 2010 , 113, 1038-53	4.3	462
127	Preserved feedforward but impaired top-down processes in the vegetative state. <i>Science</i> , 2011 , 332, 858-62	33.3	370
126	Perception of pain in the minimally conscious state with PET activation: an observational study. <i>Lancet Neurology</i> , 2008 , 7, 1013-20	24.1	331
125	Spontaneous neural activity during human slow wave sleep. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008 , 105, 15160-5	11.5	303
124	Diagnostic precision of PET imaging and functional MRI in disorders of consciousness: a clinical validation study. <i>Lancet</i> , 2014 , 384, 514-22	40	299
123	Rethinking segregation and integration: contributions of whole-brain modelling. <i>Nature Reviews Neuroscience</i> , 2015 , 16, 430-9	13.5	291
122	Sleep transforms the cerebral trace of declarative memories. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 18778-83	11.5	286
121	Recovery of cortical effective connectivity and recovery of consciousness in vegetative patients. <i>Brain</i> , 2012 , 135, 1308-20	11.2	285
120	Two distinct neuronal networks mediate the awareness of environment and of self. <i>Journal of Cognitive Neuroscience</i> , 2011 , 23, 570-8	3.1	281
119	Auditory processing in severely brain injured patients: differences between the minimally conscious state and the persistent vegetative state. <i>Archives of Neurology</i> , 2004 , 61, 233-8		278

118	The neural correlates of dreaming. <i>Nature Neuroscience</i> , 2017 , 20, 872-878	25.5	272
117	Propofol anesthesia and sleep: a high-density EEG study. <i>Sleep</i> , 2011 , 34, 283-91A	1.1	257
116	Orbitofrontal cortex involvement in chronic analgesic-overuse headache evolving from episodic migraine. <i>Brain</i> , 2006 , 129, 543-50	11.2	224
115	Connectivity changes underlying spectral EEG changes during propofol-induced loss of consciousness. <i>Journal of Neuroscience</i> , 2012 , 32, 7082-90	6.6	219
114	Sleep-related hippocampo-cortical interplay during emotional memory recollection. <i>PLoS Biology</i> , 2007 , 5, e282	9.7	199
113	Brain functional integration decreases during propofol-induced loss of consciousness. <i>NeuroImage</i> , 2011 , 57, 198-205	7.9	198
112	Are the Neural Correlates of Consciousness in the Front or in the Back of the Cerebral Cortex? Clinical and Neuroimaging Evidence. <i>Journal of Neuroscience</i> , 2017 , 37, 9603-9613	6.6	192
111	Consciousness and Complexity during Unresponsiveness Induced by Propofol, Xenon, and Ketamine. <i>Current Biology</i> , 2015 , 25, 3099-105	6.3	189
110	Stratification of unresponsive patients by an independently validated index of brain complexity. <i>Annals of Neurology</i> , 2016 , 80, 718-729	9.4	180
109	Functional neuroanatomy underlying the clinical subcategorization of minimally conscious state patients. <i>Journal of Neurology</i> , 2012 , 259, 1087-98	5.5	166
108	Human cognition during REM sleep and the activity profile within frontal and parietal cortices: a reappraisal of functional neuroimaging data. <i>Progress in Brain Research</i> , 2005 , 150, 219-27	2.9	164
107	Age-related reorganizational changes in modularity and functional connectivity of human brain networks. <i>Brain Connectivity</i> , 2014 , 4, 662-76	2.7	140
106	Complexity of Multi-Dimensional Spontaneous EEG Decreases during Propofol Induced General Anaesthesia. <i>PLoS ONE</i> , 2015 , 10, e0133532	3.7	138
105	Hierarchical clustering of brain activity during human nonrapid eye movement sleep. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 5856-61	11.5	136
104	Interplay between spontaneous and induced brain activity during human non-rapid eye movement sleep. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011 , 108, 15438-43	11.5	134
103	Consciousness in humans and non-human animals: recent advances and future directions. <i>Frontiers in Psychology</i> , 2013 , 4, 625	3.4	123
102	Functional neuroanatomy of the hypnotic state. <i>Journal of Physiology (Paris)</i> , 2006 , 99, 463-9		120
101	The Nociception Coma Scale: a new tool to assess nociception in disorders of consciousness. <i>Pain</i> , 2010 , 148, 215-219	8	115

100	Resting-state Network-specific Breakdown of Functional Connectivity during Ketamine Alteration of Consciousness in Volunteers. <i>Anesthesiology</i> , 2016 , 125, 873-888	4.3	111
99	Granger causality analysis of steady-state electroencephalographic signals during propofol-induced anaesthesia. <i>PLoS ONE</i> , 2012 , 7, e29072	3.7	104
98	A French validation study of the Coma Recovery Scale-Revised (CRS-R). <i>Brain Injury</i> , 2008 , 22, 786-92	2.1	104
97	Identifying the default-mode component in spatial IC analyses of patients with disorders of consciousness. <i>Human Brain Mapping</i> , 2012 , 33, 778-96	5.9	103
96	Electrophysiological correlates of behavioural changes in vigilance in vegetative state and minimally conscious state. <i>Brain</i> , 2011 , 134, 2222-32	11.2	103
95	The Fate of Incoming Stimuli during NREM Sleep is Determined by Spindles and the Phase of the Slow Oscillation. <i>Frontiers in Neurology</i> , 2012 , 3, 40	4.1	101
94	Cognitive function in the locked-in syndrome. <i>Journal of Neurology</i> , 2008 , 255, 323-30	5.5	101
93	A perturbational approach for evaluating the brain's capacity for consciousness. <i>Progress in Brain Research</i> , 2009 , 177, 201-14	2.9	100
92	Cerebral processing of auditory and noxious stimuli in severely brain injured patients: differences between VS and MCS. <i>Neuropsychological Rehabilitation</i> , 2005 , 15, 283-9	3.1	99
91	Dynamic change of global and local information processing in propofol-induced loss and recovery of consciousness. <i>PLoS Computational Biology</i> , 2013 , 9, e1003271	5	97
90	Detecting consciousness in a total locked-in syndrome: an active event-related paradigm. <i>Neurocase</i> , 2009 , 15, 271-7	0.8	97
89	Measuring consciousness in severely damaged brains. <i>Annual Review of Neuroscience</i> , 2014 , 37, 457-78	17	93
88	Metabolic activity in external and internal awareness networks in severely brain-damaged patients. <i>Journal of Rehabilitation Medicine</i> , 2012 , 44, 487-94	3.4	89
87	Tracking the recovery of consciousness from coma. <i>Journal of Clinical Investigation</i> , 2006 , 116, 1823-5	15.9	86
86	Does the FOUR score correctly diagnose the vegetative and minimally conscious states?. <i>Annals of Neurology</i> , 2006 , 60, 744-5; author reply 745	9.4	85
85	What is it like to be vegetative or minimally conscious?. <i>Current Opinion in Neurology</i> , 2007 , 20, 609-13	7.1	85
84	Interaction between hippocampal and striatal systems predicts subsequent consolidation of motor sequence memory. <i>PLoS ONE</i> , 2013 , 8, e59490	3.7	83
83	Using functional magnetic resonance imaging to detect covert awareness in the vegetative state. <i>Archives of Neurology</i> , 2007 , 64, 1098-102		83

82	Neuroimaging activation studies in the vegetative state: predictors of recovery?. <i>Clinical Medicine</i> , 2008 , 8, 502-7	1.9	82
81	Thalamus, brainstem and salience network connectivity changes during propofol-induced sedation and unconsciousness. <i>Brain Connectivity</i> , 2013 , 3, 273-85	2.7	80
80	Measures of metabolism and complexity in the brain of patients with disorders of consciousness. <i>NeuroImage: Clinical</i> , 2017 , 14, 354-362	5.3	78
79	Characterizing brain states with Granger causality. <i>BMC Neuroscience</i> , 2013 , 14,	3.2	78
78	Quantifying cortical EEG responses to TMS in (un)consciousness. <i>Clinical EEG and Neuroscience</i> , 2014 , 45, 40-9	2.3	77
77	Residual cognitive function in comatose, vegetative and minimally conscious states. <i>Current Opinion in Neurology</i> , 2005 , 18, 726-33	7.1	74
76	Brain connectivity in disorders of consciousness. <i>Brain Connectivity</i> , 2012 , 2, 1-10	2.7	69
75	The changing spectrum of coma. <i>Nature Clinical Practice Neurology</i> , 2008 , 4, 544-6		66
74	Visual fixation in the vegetative state: an observational case series PET study. <i>BMC Neurology</i> , 2010 , 10, 35	3.1	64
73	Consciousness Regained: Disentangling Mechanisms, Brain Systems, and Behavioral Responses. <i>Journal of Neuroscience</i> , 2017 , 37, 10882-10893	6.6	63
72	"Relevance vector machine" consciousness classifier applied to cerebral metabolism of vegetative and locked-in patients. <i>NeuroImage</i> , 2011 , 56, 797-808	7.9	62
71	The spectral exponent of the resting EEG indexes the presence of consciousness during unresponsiveness induced by propofol, xenon, and ketamine. <i>NeuroImage</i> , 2019 , 189, 631-644	7.9	62
70	Brain connectivity in pathological and pharmacological coma. <i>Frontiers in Systems Neuroscience</i> , 2010 , 4, 160	3.5	57
69	Consciousness and cerebral baseline activity fluctuations. <i>Human Brain Mapping</i> , 2008 , 29, 868-74	5.9	56
68	On the cerebral origin of EEG responses to TMS: insights from severe cortical lesions. <i>Brain Stimulation</i> , 2015 , 8, 142-9	5.1	55
67	Reversal of cortical information flow during visual imagery as compared to visual perception. <i>NeuroImage</i> , 2014 , 100, 237-43	7.9	54
66	Altered sleep homeostasis correlates with cognitive impairment in patients with focal epilepsy. <i>Brain</i> , 2017 , 140, 1026-1040	11.2	53
65	Neural correlates of performance variability during motor sequence acquisition. <i>NeuroImage</i> , 2012 , 60, 324-31	7.9	52

64	Propofol anesthesia reduces Lempel-Ziv complexity of spontaneous brain activity in rats. <i>Neuroscience Letters</i> , 2016 , 628, 132-5	3-3	49
63	Brain function in the vegetative state. <i>Acta Neurologica Belgica</i> , 2002 , 102, 177-85	1-5	47
62	Neuroimaging after coma. <i>Neuroradiology</i> , 2010 , 52, 15-24	3-2	45
61	Response to Comment on "Preserved Feedforward But Impaired Top-Down Processes in the Vegetative State". <i>Science</i> , 2011 , 334, 1203-1203	33-3	44
60	Reduction in inter-hemispheric connectivity in disorders of consciousness. <i>PLoS ONE</i> , 2012 , 7, e37238	3-7	43
59	Perturbation of whole-brain dynamics in silico reveals mechanistic differences between brain states. <i>NeuroImage</i> , 2018 , 169, 46-56	7-9	41
58	Neural precursors of delayed insight. <i>Journal of Cognitive Neuroscience</i> , 2011 , 23, 1900-10	3-1	40
57	Stimulus set meaningfulness and neurophysiological differentiation: a functional magnetic resonance imaging study. <i>PLoS ONE</i> , 2015 , 10, e0125337	3-7	39
56	Does sleep promote false memories?. <i>Journal of Cognitive Neuroscience</i> , 2011 , 23, 26-40	3-1	39
55	Magnetic resonance spectroscopy and diffusion tensor imaging in coma survivors: promises and pitfalls. <i>Progress in Brain Research</i> , 2009 , 177, 215-29	2-9	39
54	Reaching across the abyss: recent advances in functional magnetic resonance imaging and their potential relevance to disorders of consciousness. <i>Progress in Brain Research</i> , 2009 , 177, 261-74	2-9	36
53	Preserved covert cognition in noncommunicative patients with severe brain injury?. <i>Neurorehabilitation and Neural Repair</i> , 2015 , 29, 308-17	4-7	35
52	Brain function in physiologically, pharmacologically, and pathologically altered states of consciousness. <i>International Anesthesiology Clinics</i> , 2008 , 46, 131-46	0-6	35
51	Consciousness and cortical responsiveness: a within-state study during non-rapid eye movement sleep. <i>Scientific Reports</i> , 2016 , 6, 30932	4-9	34
50	Propofol-Induced Frontal Cortex Disconnection: A Study of Resting-State Networks, Total Brain Connectivity, and Mean BOLD Signal Oscillation Frequencies. <i>Brain Connectivity</i> , 2016 , 6, 225-37	2-7	34
49	Influence of anesthesia on cerebral blood flow, cerebral metabolic rate, and brain functional connectivity. <i>Current Opinion in Anaesthesiology</i> , 2011 , 24, 474-9	2-9	34
48	Theoretical approaches to the diagnosis of altered states of consciousness. <i>Progress in Brain Research</i> , 2009 , 177, 383-98	2-9	34
47	Is there anybody in there? Detecting awareness in disorders of consciousness. <i>Expert Review of Neurotherapeutics</i> , 2008 , 8, 1719-30	4-3	34

46	Measuring the fading consciousness in the human brain. <i>Current Opinion in Neurology</i> , 2011 , 24, 394-400	7.1	33
45	The Phenomenal Contents and Neural Correlates of Spontaneous Thoughts across Wakefulness, NREM Sleep, and REM Sleep. <i>Journal of Cognitive Neuroscience</i> , 2017 , 29, 1766-1777	3.1	30
44	Posterior and anterior cortex - where is the difference that makes the difference?. <i>Nature Reviews Neuroscience</i> , 2016 , 17, 666	13.5	30
43	Directed information transfer in scalp electroencephalographic recordings: insights on disorders of consciousness. <i>Clinical EEG and Neuroscience</i> , 2014 , 45, 33-9	2.3	28
42	Festina lente: evidences for fast and slow learning processes and a role for sleep in human motor skill learning. <i>Learning and Memory</i> , 2003 , 10, 237-9	2.8	27
41	Nociception coma scale-revised scores correlate with metabolism in the anterior cingulate cortex. <i>Neurorehabilitation and Neural Repair</i> , 2014 , 28, 149-52	4.7	26
40	Global structural integrity and effective connectivity in patients with disorders of consciousness. <i>Brain Stimulation</i> , 2018 , 11, 358-365	5.1	26
39	A fast and general method to empirically estimate the complexity of brain responses to transcranial and intracranial stimulations. <i>Brain Stimulation</i> , 2019 , 12, 1280-1289	5.1	24
38	Changes in Whole Brain Dynamics and Connectivity Patterns during Sevoflurane- and Propofol-induced Unconsciousness Identified by Functional Magnetic Resonance Imaging. <i>Anesthesiology</i> , 2019 , 130, 898-911	4.3	24
37	Changes in effective connectivity by propofol sedation. <i>PLoS ONE</i> , 2013 , 8, e71370	3.7	23
36	Functional split brain in a driving/listening paradigm. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016 , 113, 14444-14449	11.5	22
35	Consciousness and responsiveness: lessons from anaesthesia and the vegetative state. <i>Current Opinion in Anaesthesiology</i> , 2013 , 26, 444-9	2.9	22
34	Connectivity differences between consciousness and unconsciousness in non-rapid eye movement sleep: a TMS-EEG study. <i>Scientific Reports</i> , 2019 , 9, 5175	4.9	19
33	Naloxone-insensitive epidural placebo analgesia in a chronic pain patient. <i>Anesthesiology</i> , 2007 , 106, 1239-42	4.3	19
32	Human Rapid Eye Movement Sleep Shows Local Increases in Low-Frequency Oscillations and Global Decreases in High-Frequency Oscillations Compared to Resting Wakefulness. <i>ENeuro</i> , 2018 , 5,	3.9	19
31	Extended Multiple-Field High-Definition transcranial direct current stimulation (HD-tDCS) is well tolerated and safe in healthy adults. <i>Restorative Neurology and Neuroscience</i> , 2017 , 35, 631-642	2.8	15
30	Sleep and Consciousness 2013 , 133-182		14
29	The neural correlates of dreaming		12

28	Evoked Alpha Power is Reduced in Disconnected Consciousness During Sleep and Anesthesia. <i>Scientific Reports</i> , 2018 , 8, 16664	4.9	12
27	Neurophysiological correlates of hypnotic analgesia. <i>Contemporary Hypnosis</i> , 2009 , 26, 15-23		10
26	The Neurology of Consciousness 2016 , 407-461		9
25	Monitoring epilepsy in the intensive care unit: current state of facts and potential interest of high density EEG. <i>Brain Injury</i> , 2014 , 28, 1151-5	2.1	9
24	Functional Neuroimaging 2009 , 31-42		8
23	A high-density electroencephalography study reveals abnormal sleep homeostasis in patients with rapid eye movement sleep behavior disorder. <i>Scientific Reports</i> , 2021 , 11, 4758	4.9	8
22	Mechanisms Underlying Disorders of Consciousness: Bridging Gaps to Move Toward an Integrated Translational Science. <i>Neurocritical Care</i> , 2021 , 35, 37-54	3.3	7
21	Functional Neuroimaging Approaches to the Changing Borders of Consciousness. <i>Journal of Psychophysiology</i> , 2010 , 24, 68-75	1	5
20	Regional and global resting-state functional MR connectivity in temporal lobe epilepsy: Results from the Epilepsy Connectome Project. <i>Epilepsy and Behavior</i> , 2021 , 117, 107841	3.2	5
19	Common Data Elements for COVID-19 Neuroimaging: A GCS-NeuroCOVID Proposal. <i>Neurocritical Care</i> , 2021 , 34, 365-370	3.3	5
18	Functional Imaging and Impaired Consciousness 2012 , 25-34		4
17	Increased lucid dream frequency in long-term meditators but not following MBSR training. <i>Psychology of Consciousness: Theory Research, and Practice</i> , 2019 , 6, 40-54	1.8	4
16	Functional fMRI bedside detection of covert awareness after severe brain damage. <i>Brain</i> , 2018 , 141, 1239-1241	11.2	3
15	Consciousness and the fallacy of misplaced objectivity. <i>Neuroscience of Consciousness</i> , 2021 , 2021, niab032		3
14	Exploring the Neurophysiological Correlates of Loss and Recovery of Consciousness: Perturbational Complexity 2016 , 93-104		2
13	Graph Theoretical Analysis of Cortical Networks based on Conscious Experience. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , 2019 , 2019, 3373-3376	0.9	2
12	Are the neural correlates of consciousness in the front or in the back of the cerebral cortex? Clinical and neuroimaging evidence		2
11	A fast and general method to empirically estimate the complexity of brain responses to transcranial and intracranial stimulations		1

10	BOLD signatures of sleep		1
9	Quantifying arousal and awareness in altered states of consciousness using interpretable deep learning.. <i>Nature Communications</i> , 2022 , 13, 1064	17.4	1
8	Functional Neuroimaging Techniques 2016 , 31-47		0
7	Episodic thought distinguishes spontaneous cognition in waking from REM and NREM sleep. <i>Consciousness and Cognition</i> , 2021 , 97, 103247	2.6	0
6	Local Sleep Slow-Wave Activity Colocalizes With the Ictal Symptomatogenic Zone in a Patient With Reflex Epilepsy: A High-Density EEG Study. <i>Frontiers in Systems Neuroscience</i> , 2020 , 14, 549309	3.5	0
5	IIT, half masked and half disfigured.. <i>Behavioral and Brain Sciences</i> , 2022 , 45, e60	0.9	0
4	Engineering nonlinear epileptic biomarkers using deep learning and Benford's law.. <i>Scientific Reports</i> , 2022 , 12, 5397	4.9	0
3	Using Transcranial Magnetic Stimulation to Measure Cerebral Connectivity in Patients with Disorders of Consciousness 2012 , 79-84		
2	Off-line processing of memory traces during human sleep: Contribution of functional neuroimaging. <i>Sleep and Biological Rhythms</i> , 2003 , 1, 75-83	1.3	
1	Neuroimaging of Consciousness in the Vegetative and Minimally Conscious States 2013 , 117-131		