

Maarten De Vos

List of Publications by Year in descending order

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Version: 2024-02-01

104
papers

7,484
citations

101543

36
h-index

62596

80
g-index

112
all docs

112
docs citations

112
times ranked

11804
citing authors

#	ARTICLE	IF	CITATIONS
1	Prediction models for diagnosis and prognosis of covid-19: systematic review and critical appraisal. <i>BMJ, The</i> , 2020, 369, m1328.	6.0	2,134
2	How about taking a low-cost, small, and wireless <sc>EEG</sc> for a walk?. <i>Psychophysiology</i> , 2012, 49, 1617-1621.	2.4	455
3	Source Separation From Single-Channel Recordings by Combining Empirical-Mode Decomposition and Independent Component Analysis. <i>IEEE Transactions on Biomedical Engineering</i> , 2010, 57, 2188-2196.	4.2	308
4	SeqSleepNet: End-to-End Hierarchical Recurrent Neural Network for Sequence-to-Sequence Automatic Sleep Staging. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 400-410.	4.9	296
5	Unobtrusive ambulatory EEG using a smartphone and flexible printed electrodes around the ear. <i>Scientific Reports</i> , 2015, 5, 16743.	3.3	287
6	Joint Classification and Prediction CNN Framework for Automatic Sleep Stage Classification. <i>IEEE Transactions on Biomedical Engineering</i> , 2019, 66, 1285-1296.	4.2	274
7	Towards a truly mobile auditory brain-computer interface: Exploring the P300 to take away. <i>International Journal of Psychophysiology</i> , 2014, 91, 46-53.	1.0	178
8	Neonatal Seizure Detection Using Deep Convolutional Neural Networks. <i>International Journal of Neural Systems</i> , 2019, 29, 1850011.	5.2	157
9	Real-time EEG feedback during simultaneous EEG-fMRI identifies the cortical signature of motor imagery. <i>NeuroImage</i> , 2015, 114, 438-447.	4.2	143
10	Target Speaker Detection with Concealed EEG Around the Ear. <i>Frontiers in Neuroscience</i> , 2016, 10, 349.	2.8	122
11	A combination of parallel factor and independent component analysis. <i>Signal Processing</i> , 2012, 92, 2990-2999.	3.7	120
12	Removal of Muscle Artifacts from EEG Recordings of Spoken Language Production. <i>Neuroinformatics</i> , 2010, 8, 135-150.	2.8	115
13	P300 speller BCI with a mobile EEG system: comparison to a traditional amplifier. <i>Journal of Neural Engineering</i> , 2014, 11, 036008.	3.5	113
14	Cross-Modal Phase Reset Predicts Auditory Task Performance in Humans. <i>Journal of Neuroscience</i> , 2011, 31, 3853-3861.	3.6	107
15	Review of sleep-EEG in preterm and term neonates. <i>Early Human Development</i> , 2017, 113, 87-103.	1.8	99
16	Mobile EEG on the bike: disentangling attentional and physical contributions to auditory attention tasks. <i>Journal of Neural Engineering</i> , 2016, 13, 046017.	3.5	89
17	Removal of BCG artifacts from EEG recordings inside the MR scanner: A comparison of methodological and validation-related aspects. <i>NeuroImage</i> , 2010, 50, 920-934.	4.2	85
18	Exploring miniaturized EEG electrodes for brain-computer interfaces. An EEG you do not see?. <i>Physiological Reports</i> , 2015, 3, e12362.	1.7	85

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19	SleepTransformer: Automatic Sleep Staging With Interpretability and Uncertainty Quantification. IEEE Transactions on Biomedical Engineering, 2022, 69, 2456-2467.	4.2	74
20	Rapid bilateral improvement in auditory cortex activity in postlingually deafened adults following cochlear implantation. Clinical Neurophysiology, 2015, 126, 594-607.	1.5	72
21	Towards More Accurate Automatic Sleep Staging via Deep Transfer Learning. IEEE Transactions on Biomedical Engineering, 2021, 68, 1787-1798.	4.2	72
22	Cross-modal reorganization in cochlear implant users: Auditory cortex contributes to visual face processing. NeuroImage, 2015, 121, 159-170.	4.2	69
23	Comparing Feature Based Classifiers and Convolutional Neural Networks to Detect Arrhythmia from Short Segments of ECG. , 0, , .		68
24	Mobile EEG: Towards brain activity monitoring during natural action and cognition. International Journal of Psychophysiology, 2014, 91, 1-2.	1.0	61
25	Machine-learning-derived sleep-wake staging from around-the-head ear electroencephalogram outperforms manual scoring and actigraphy. Journal of Sleep Research, 2019, 28, e12786.	3.2	60
26	Incorporating structural information from the multichannel EEG improves patient-specific seizure detection. Clinical Neurophysiology, 2012, 123, 2352-2361.	1.5	58
27	An Automated Quiet Sleep Detection Approach in Preterm Infants as a Gateway to Assess Brain Maturation. International Journal of Neural Systems, 2017, 27, 1750023.	5.2	55
28	Line length as a robust method to detect high-activity events: Automated burst detection in premature EEG recordings. Clinical Neurophysiology, 2014, 125, 1985-1994.	1.5	53
29	Wireless EEG with individualized channel layout enables efficient motor imagery training. Clinical Neurophysiology, 2015, 126, 698-710.	1.5	53
30	Detection of REM sleep behaviour disorder by automated polysomnography analysis. Clinical Neurophysiology, 2019, 130, 505-514.	1.5	53
31	Automated EEG sleep staging in the term-age baby using a generative modelling approach. Journal of Neural Engineering, 2018, 15, 036004.	3.5	51
32	Discriminating progressive supranuclear palsy from Parkinson's disease using wearable technology and machine learning. Gait and Posture, 2020, 77, 257-263.	1.4	49
33	Quiet sleep detection in preterm infants using deep convolutional neural networks. Journal of Neural Engineering, 2018, 15, 066006.	3.5	47
34	Big data in Parkinson's disease: using smartphones to remotely detect longitudinal disease phenotypes. Physiological Measurement, 2018, 39, 044005.	2.1	45
35	The "why" and "how" of JointICA: Results from a visual detection task. NeuroImage, 2012, 60, 1171-1185.	5.2	42
36	A convolutional neural network outperforming state-of-the-art sleep staging algorithms for both preterm and term infants. Journal of Neural Engineering, 2020, 17, 016028.	3.5	41

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37	Let's face it, from trial to trial: Comparing procedures for N170 single-trial estimation. <i>NeuroImage</i> , 2012, 63, 1196-1202.	4.2	39
38	Compressed Sensing of Multichannel EEG Signals: The Simultaneous Cosparsity and Low-Rank Optimization. <i>IEEE Transactions on Biomedical Engineering</i> , 2015, 62, 2055-2061.	4.2	39
39	Cortical region-specific sleep homeostasis in mice: effects of time of day and waking experience. <i>Sleep</i> , 2018, 41, .	1.1	39
40	Predicting motor, cognitive & functional impairment in Parkinson's. <i>Annals of Clinical and Translational Neurology</i> , 2019, 6, 1498-1509.	3.7	35
41	Accurate detection of typical absence seizures in adults and children using a two-channel electroencephalographic wearable behind the ears. <i>Epilepsia</i> , 2021, 62, 2741-2752.	5.1	34
42	The power of data mining in diagnosis of childhood pneumonia. <i>Journal of the Royal Society Interface</i> , 2016, 13, 20160266.	3.4	33
43	Change Point Detection in Time Series Data Using Autoencoders With a Time-Invariant Representation. <i>IEEE Transactions on Signal Processing</i> , 2021, 69, 3513-3524.	5.3	33
44	The dynamics of contour integration: A simultaneous EEG-fMRI study. <i>NeuroImage</i> , 2014, 88, 10-21.	4.2	31
45	Personalized automatic sleep staging with single-night data: a pilot study with Kullback-Leibler divergence regularization. <i>Physiological Measurement</i> , 2020, 41, 064004.	2.1	31
46	Objective differentiation of neonatal EEG background grades using detrended fluctuation analysis. <i>Frontiers in Human Neuroscience</i> , 2015, 9, 189.	2.0	29
47	Lateralization patterns of covert but not overt movements change with age: An EEG neurofeedback study. <i>NeuroImage</i> , 2015, 116, 80-91.	4.2	29
48	Improved multi-stage neonatal seizure detection using a heuristic classifier and a data-driven post-processor. <i>Clinical Neurophysiology</i> , 2016, 127, 3014-3024.	1.5	29
49	Auditory Processing under Cross-Modal Visual Load Investigated with Simultaneous EEG-fMRI. <i>PLoS ONE</i> , 2012, 7, e52267.	2.5	28
50	Heart rate variability in bipolar disorder and borderline personality disorder: a clinical review. <i>Evidence-Based Mental Health</i> , 2018, 21, 23-30.	4.5	28
51	Data-driven Derivation and Validation of Novel Phenotypes for Acute Kidney Transplant Rejection using Semi-supervised Clustering. <i>Journal of the American Society of Nephrology: JASN</i> , 2021, 32, 1084-1096.	6.1	28
52	Interhemispheric synchrony in the neonatal EEG revisited: activation synchrony index as a promising classifier. <i>Frontiers in Human Neuroscience</i> , 2014, 8, 1030.	2.0	27
53	The power of ECG in multimodal patient-specific seizure monitoring: Added value to an EEG-based detector using limited channels. <i>Epilepsia</i> , 2021, 62, 2333-2343.	5.1	27
54	Relationship of EEG sources of neonatal seizures to acute perinatal brain lesions seen on MRI: A pilot study. <i>Human Brain Mapping</i> , 2013, 34, 2402-2417.	3.6	26

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55	Single trial <scp>ERP</scp> reading based on parallel factor analysis. <i>Psychophysiology</i> , 2013, 50, 97-110.	2.4	26
56	Resting-state brain information flow predicts cognitive flexibility in humans. <i>Scientific Reports</i> , 2019, 9, 3879.	3.3	26
57	Structure-switching aptamer sensors for the specific detection of piperazine and mefloquine. <i>Science Translational Medicine</i> , 2021, 13, .	12.4	26
58	A prospective fMRI-based technique for localising the epileptogenic zone in presurgical evaluation of epilepsy. <i>NeuroImage</i> , 2015, 113, 329-339.	4.2	25
59	Impact of Different Acoustic Components on EEG-Based Auditory Attention Decoding in Noisy and Reverberant Conditions. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 652-663.	4.9	24
60	Estimation of Continuous Blood Pressure from PPG via a Federated Learning Approach. <i>Sensors</i> , 2021, 21, 6311.	3.8	24
61	ICA Extracts Epileptic Sources from fMRI in EEG-Negative Patients: A Retrospective Validation Study. <i>PLoS ONE</i> , 2013, 8, e78796.	2.5	23
62	Look me in the eye: evaluating the accuracy of smartphone-based eye tracking for potential application in autism spectrum disorder research. <i>BioMedical Engineering OnLine</i> , 2019, 18, 51.	2.7	22
63	Bayesian model selection of template forward models for EEG source reconstruction. <i>NeuroImage</i> , 2014, 93, 11-22.	4.2	21
64	Towards continuous and real-time attention monitoring at work: reaction time versus brain response. <i>Ergonomics</i> , 2017, 60, 241-254.	2.1	21
65	Deep Transfer Learning for Single-Channel Automatic Sleep Staging with Channel Mismatch. , 2019, , .		20
66	Automated EEG background analysis to identify neonates with hypoxic-ischemic encephalopathy treated with hypothermia at risk for adverse outcome: A pilot study. <i>Pediatrics and Neonatology</i> , 2019, 60, 50-58.	0.9	20
67	Applying a data-driven approach to quantify EEG maturational deviations in preterms with normal and abnormal neurodevelopmental outcomes. <i>Scientific Reports</i> , 2020, 10, 7288.	3.3	20
68	Desynchronization of diurnal rhythms in bipolar disorder and borderline personality disorder. <i>Translational Psychiatry</i> , 2018, 8, 79.	4.8	19
69	Clinical Insight Into Latent Variables of Psychiatric Questionnaires for Mood Symptom Self-Assessment. <i>JMIR Mental Health</i> , 2017, 4, e15.	3.3	19
70	Holistic approach for automated background EEG assessment in asphyxiated full-term infants. <i>Journal of Neural Engineering</i> , 2014, 11, 066007.	3.5	17
71	Sleep differences in the UK between 1974 and 2015: Insights from detailed time diaries. <i>Journal of Sleep Research</i> , 2019, 28, e12753.	3.2	15
72	Fusion of electroencephalography and functional magnetic resonance imaging to explore epileptic network activity. , 2016, , .		14

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73	Weighted Performance Metrics for Automatic Neonatal Seizure Detection Using Multiscored EEG Data. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2018, 22, 1114-1123.	6.3	13
74	A Deep Shared Multi-Scale Inception Network Enables Accurate Neonatal Quiet Sleep Detection With Limited EEG Channels. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2022, 26, 1023-1033.	6.3	13
75	Detecting Mild Cognitive Impairment via Digital Biomarkers of Cognitive Performance Found in Klondike Solitaire: A Machine-Learning Study. <i>Digital Biomarkers</i> , 2021, 5, 44-52.	4.4	13
76	Group-Personalized Regression Models for Predicting Mental Health Scores From Objective Mobile Phone Data Streams: Observational Study. <i>Journal of Medical Internet Research</i> , 2018, 20, e10194.	4.3	13
77	Heart Rate Variability in Newborns with Hypoxic Brain Injury. <i>Advances in Experimental Medicine and Biology</i> , 2013, 789, 43-48.	1.6	12
78	Classification with a Deferral Option and Low-Trust Filtering for Automated Seizure Detection. <i>Sensors</i> , 2021, 21, 1046.	3.8	11
79	Proof of concept: Screening for REM sleep behaviour disorder with a minimal set of sensors. <i>Clinical Neurophysiology</i> , 2021, 132, 904-913.	1.5	11
80	Tough doughnuts: affect and the modulation of attention. <i>Frontiers in Human Neuroscience</i> , 2013, 7, 876.	2.0	10
81	Benefits of Instructed Responding in Manual Assembly Tasks: An ERP Approach. <i>Frontiers in Human Neuroscience</i> , 2016, 10, 171.	2.0	10
82	Interrater agreement in visual scoring of neonatal seizures based on majority voting on a web-based system: The Neoguard EEG database. <i>Clinical Neurophysiology</i> , 2017, 128, 1737-1745.	1.5	10
83	Towards Multimodal Machine Learning Prediction of Individual Cognitive Evolution in Multiple Sclerosis. <i>Journal of Personalized Medicine</i> , 2021, 11, 1349.	2.5	10
84	Automated EEG inter-burst interval detection in neonates with mild to moderate postasphyxial encephalopathy. , 2012, 2012, 17-20.		9
85	The temporal dynamics of sleep disturbance and psychopathology in psychosis: a digital sampling study. <i>Psychological Medicine</i> , 2022, 52, 2741-2750.	4.5	8
86	Automatic annotation correction for wearable EEG based epileptic seizure detection. <i>Journal of Neural Engineering</i> , 2022, 19, 016038.	3.5	7
87	Multiple sparse volumetric priors for distributed EEG source reconstruction. <i>NeuroImage</i> , 2014, 100, 715-724.	4.2	6
88	Interpretable deep learning for the remote characterisation of ambulation in multiple sclerosis using smartphones. <i>Scientific Reports</i> , 2021, 11, 14301.	3.3	5
89	P029 Sleep and circadian rhythm disturbances and relapse in schizophrenia: a digital phenotyping study. , 2019, , .		4
90	Identifying neural signatures mediating behavioral symptoms and psychosis onset: High-dimensional whole brain functional mediation analysis. <i>NeuroImage</i> , 2021, 226, 117508.	4.2	4

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91	Linking Changes in Heart Rate Variability to Mood Changes in Daily Life. , 2017, , .		3
92	Functional brain maturation and sleep organisation in neonates with congenital heart disease. European Journal of Paediatric Neurology, 2022, 36, 115-122.	1.6	3
93	Algorithm for imposing SOBI-type constraints on the CP model. , 2008, , .		2
94	The quest for single trial correlations in multimodal EEG-fMRI data. , 2013, 2013, 6027-30.		2
95	A Bayesian parametric model for quantifying brain maturation from sleep-EEG in the vulnerable newborn baby. , 2018, 2018, 1-4.		1
96	Evaluation of Source-wise Missing Data Techniques for the Prediction of Parkinsonâ€™s Disease Using Smartphones. , 2019, , .		1
97	Automated detection and removal of flat line segments and large amplitude fluctuations in neonatal electroencephalography. PeerJ, 0, 10, e13734.	2.0	1
98	Canonical Decomposition of scalp EEG as preprocessing for source localisation. , 2007, , .		0
99	ICA Component Selection Based on Sparse Activelet Reconstruction for fMRI Analysis in Refractory Focal Epilepsy. , 2012, , .		0
100	Comparison of correlation analysis and JointICA for simultaneous EEG-fMRI recordings on contour integration task. , 2013, 2013, 6019-22.		0
101	The suppression curve as a new representation of the premature EEG maturation. BMC Neuroscience, 2015, 16, .	1.9	0
102	Electroencephalography: Current Trends and Future Directions. Studies in Neuroscience, Psychology and Behavioral Economics, 2016, , 359-373.	0.3	0
103	7. Digital Data Capture in the Characterisation of Diurnal Correlates of Mood Instability. Biological Psychiatry, 2018, 83, S3.	1.3	0
104	Data-Driven Clustering of P300 Eeg Data Using Coupled Tensor Decompositions. , 2017, , .		0