Maarten De Vos

List of Publications by Year
in descending order

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	A Deep Shared Multi-Scale Inception Network Enables Accurate Neonatal Quiet Sleep Detection With Limited EEG Channels. IEEE Journal of Biomedical and Health Informatics, 2022, 26, 1023-1033.	6.3	13
2	The temporal dynamics of sleep disturbance and psychopathology in psychosis: a digital sampling study. Psychological Medicine, 2022, 52, 2741-2750.	4.5	8
3	Functional brain maturation and sleep organisation in neonates with congenital heart disease. European Journal of Paediatric Neurology, 2022, 36, 115-122.	1.6	3
4	SleepTransformer: Automatic Sleep Staging With Interpretability and Uncertainty Quantification. IEEE Transactions on Biomedical Engineering, 2022, 69, 2456-2467.	4.2	74
5	Automatic annotation correction for wearable EEG based epileptic seizure detection. Journal of Neural Engineering, 2022, 19, 016038.	3.5	7
6	Identifying neural signatures mediating behavioral symptoms and psychosis onset: High-dimensional whole brain functional mediation analysis. NeuroImage, 2021, 226, 117508.	4.2	4
7	Towards More Accurate Automatic Sleep Staging via Deep Transfer Learning. IEEE Transactions on Biomedical Engineering, 2021, 68, 1787-1798.	4.2	72
8	Change Point Detection in Time Series Data Using Autoencoders With a Time-Invariant Representation. IEEE Transactions on Signal Processing, 2021, 69, 3513-3524.	5.3	33
9	Classification with a Deferral Option and Low-Trust Filtering for Automated Seizure Detection. Sensors, 2021, 21, 1046.	3.8	11
10	Detecting Mild Cognitive Impairment via Digital Biomarkers of Cognitive Performance Found in Klondike Solitaire: A Machine-Learning Study. Digital Biomarkers, 2021, 5, 44-52.	4.4	13
11	Data-driven Derivation and Validation of Novel Phenotypes for Acute Kidney Transplant Rejection using Semi-supervised Clustering. Journal of the American Society of Nephrology: JASN, 2021, 32, 1084-1096.	6.1	28
12	Structure-switching aptamer sensors for the specific detection of piperaquine and mefloquine. Science Translational Medicine, 2021, 13, .	12.4	26
13	Proof of concept: Screening for REM sleep behaviour disorder with a minimal set of sensors. Clinical Neurophysiology, 2021, 132, 904-913.	1.5	11
14	Interpretable deep learning for the remote characterisation of ambulation in multiple sclerosis using smartphones. Scientific Reports, 2021, 11, 14301.	3.3	5
15	The power of ECG in multimodal patient-specific seizure monitoring: Added value to an EEG-based detector using limited channels. Epilepsia, 2021, 62, 2333-2343.	5.1	27
16	Estimation of Continuous Blood Pressure from PPG via a Federated Learning Approach. Sensors, 2021, 21, 6311.	3.8	24
17	Accurate detection of typical absence seizures in adults and children using a two-channel electroencephalographic wearable behind the ears. Epilepsia, 2021, 62, 2741-2752.	5.1	34
18	Towards Multimodal Machine Learning Prediction of Individual Cognitive Evolution in Multiple Sclerosis. Journal of Personalized Medicine, 2021, 11, 1349.	2.5	10

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19	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
20	Applying a data-driven approach to quantify EEG maturational deviations in preterms with normal and abnormal neurodevelopmental outcomes. Scientific Reports, 2020, 10, 7288.	3.3	20
21	Personalized automatic sleep staging with single-night data: a pilot study with Kullbackâ€"Leibler divergence regularization. Physiological Measurement, 2020, 41, 064004.	2.1	31
22	Discriminating progressive supranuclear palsy from Parkinson's disease using wearable technology and machine learning. Gait and Posture, 2020, 77, 257-263.	1.4	49
23	Prediction models for diagnosis and prognosis of covid-19: systematic review and critical appraisal. BMJ, The, 2020, 369, m1328.	6.0	2,134
24	Neonatal Seizure Detection Using Deep Convolutional Neural Networks. International Journal of Neural Systems, 2019, 29, 1850011.	5.2	157
25	Predicting motor, cognitive & functional impairment in Parkinson's. Annals of Clinical and Translational Neurology, 2019, 6, 1498-1509.	3.7	35
26	SeqSleepNet: End-to-End Hierarchical Recurrent Neural Network for Sequence-to-Sequence Automatic Sleep Staging. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 400-410.	4.9	296
27	Impact of Different Acoustic Components on EEG-Based Auditory Attention Decoding in Noisy and Reverberant Conditions. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2019, 27, 652-663.	4.9	24
28	Evaluation of Source-wise Missing Data Techniques for the Prediction of Parkinsonâ€™s Disease Using Smartphones. , 2019, , .		1
29	Look me in the eye: evaluating the accuracy of smartphone-based eye tracking for potential application in autism spectrum disorder research. BioMedical Engineering OnLine, 2019, 18, 51.	2.7	22
30	Resting-state brain information flow predicts cognitive flexibility in humans. Scientific Reports, 2019, 9, 3879.	3.3	26
31	Detection of REM sleep behaviour disorder by automated polysomnography analysis. Clinical Neurophysiology, 2019, 130, 505-514.	1.5	53
32	P029â€¦Sleep and circadian rhythm disturbances and relapse in schizophrenia: a digital phenotyping study. , 2019, , .		4
33	Deep Transfer Learning for Single-Channel Automatic Sleep Staging with Channel Mismatch. , 2019, , .		20
34	Sleep differences in the UK between 1974 and 2015: Insights from detailed time diaries. Journal of Sleep Research, 2019, 28, e12753.	3.2	15
35	Machineâ€learningâ€derived sleepâ€"wake staging from aroundâ€theâ€ear electroencephalogram outperforms manual scoring and actigraphy. Journal of Sleep Research, 2019, 28, e12786.	3.2	60
36	Joint Classification and Prediction CNN Framework for Automatic Sleep Stage Classification. IEEE Transactions on Biomedical Engineering, 2019, 66, 1285-1296.	4.2	274

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37	Automated EEG background analysis to identify neonates with hypoxic-ischemic encephalopathy treated with hypothermia at risk for adverse outcome: A pilot study. Pediatrics and Neonatology, 2019, 60, 50-58.	0.9	20
38	Big data in Parkinsonâ€™s disease: using smartphones to remotely detect longitudinal disease phenotypes. Physiological Measurement, 2018, 39, 044005.	2.1	45
39	Desynchronization of diurnal rhythms in bipolar disorder and borderline personality disorder. Translational Psychiatry, 2018, 8, 79.	4.8	19
40	Cortical regionâ€"specific sleep homeostasis in mice: effects of time of day and waking experience. Sleep, 2018, 41, .	1.1	39
41	Automated EEG sleep staging in the term-age baby using a generative modelling approach. Journal of Neural Engineering, 2018, 15, 036004.	3.5	51
42	Weighted Performance Metrics for Automatic Neonatal Seizure Detection Using Multiscored EEG Data. IEEE Journal of Biomedical and Health Informatics, 2018, 22, 1114-1123.	6.3	13
43	Heart rate variability in bipolar disorder and borderline personality disorder: a clinical review. Evidence-Based Mental Health, 2018, 21, 23-30.	4.5	28
44	A Bayesian parametric model for quantifying brain maturation from sleep-EEG in the vulnerable newborn baby. , 2018, 2018, 1-4.		1
45	7. Digital Data Capture in the Characterisation of Diurnal Correlates of Mood Instability. Biological Psychiatry, 2018, 83, S3.	1.3	0
46	Quiet sleep detection in preterm infants using deep convolutional neural networks. Journal of Neural Engineering, 2018, 15, 066006.	3.5	47
47	Group-Personalized Regression Models for Predicting Mental Health Scores From Objective Mobile Phone Data Streams: Observational Study. Journal of Medical Internet Research, 2018, 20, e10194.	4.3	13
48	Towards continuous and real-time attention monitoring at work: reaction time versus brain response. Ergonomics, 2017, 60, 241-254.	2.1	21
49	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
50	Interrater agreement in visual scoring of neonatal seizures based on majority voting on a web-based system: The Neoguard EEG database. Clinical Neurophysiology, 2017, 128, 1737-1745.	1.5	10
51	Review of sleep-EEG in preterm and term neonates. Early Human Development, 2017, 113, 87-103.	1.8	99
52	Linking Changes in Heart Rate Variability to Mood Changes in Daily Life. , 2017, , .		3
53	Clinical Insight Into Latent Variables of Psychiatric Questionnaires for Mood Symptom Self-Assessment. JMIR Mental Health, 2017, 4, e15.	3.3	19
54	Data-Driven Clustering of P300 Eeg Data Using Coupled Tensor Decompositions. , 2017, , .		0

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55	Benefits of Instructed Responding in Manual Assembly Tasks: An ERP Approach. Frontiers in Human Neuroscience, 2016, 10, 171.	2.0	10
56	Target Speaker Detection with Concealed EEG Around the Ear. Frontiers in Neuroscience, 2016, 10, 349.	2.8	122
57	The power of data mining in diagnosis of childhood pneumonia. Journal of the Royal Society Interface, 2016, 13, 20160266.	3.4	33
58	Fusion of electroencephalography and functional magnetic resonance imaging to explore epileptic network activity. , 2016, , .		14
59	Mobile EEG on the bike: disentangling attentional and physical contributions to auditory attention tasks. Journal of Neural Engineering, 2016, 13, 046017.	3.5	89
60	Electroencephalography: Current Trends and Future Directions. Studies in Neuroscience, Psychology and Behavioral Economics, 2016, , 359-373.	0.3	0
61	Improved multi-stage neonatal seizure detection using a heuristic classifier and a data-driven post-processor. Clinical Neurophysiology, 2016, 127, 3014-3024.	1.5	29
62	Exploring miniaturized EEG electrodes for brain-computer interfaces. An EEG you do not see?. Physiological Reports, 2015, 3, e12362.	1.7	85
63	Unobtrusive ambulatory EEG using a smartphone and flexible printed electrodes around the ear. Scientific Reports, 2015, 5, 16743.	3.3	287
64	The suppression curve as a new representation of the premature EEG maturation. BMC Neuroscience, 2015, 16, .	1.9	0
65	Objective differentiation of neonatal EEG background grades using detrended fluctuation analysis. Frontiers in Human Neuroscience, 2015, 9, 189.	2.0	29
66	Rapid bilateral improvement in auditory cortex activity in postlingually deafened adults following cochlear implantation. Clinical Neurophysiology, 2015, 126, 594-607.	1.5	72
67	Real-time EEG feedback during simultaneous EEGâ€"fMRI identifies the cortical signature of motor imagery. NeuroImage, 2015, 114, 438-447.	4.2	143
68	Lateralization patterns of covert but not overt movements change with age: An EEG neurofeedback study. NeuroImage, 2015, 116, 80-91.	4.2	29
69	Compressed Sensing of Multichannel EEG Signals: The Simultaneous Cosparsity and Low-Rank Optimization. IEEE Transactions on Biomedical Engineering, 2015, 62, 2055-2061.	4.2	39
70	A prospective fMRI-based technique for localising the epileptogenic zone in presurgical evaluation of epilepsy. NeuroImage, 2015, 113, 329-339.	4.2	25
71	Cross-modal reorganization in cochlear implant users: Auditory cortex contributes to visual face processing. NeuroImage, 2015, 121, 159-170.	4.2	69
72	Wireless EEG with individualized channel layout enables efficient motor imagery training. Clinical Neurophysiology, 2015, 126, 698-710.	1.5	53

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73	Interhemispheric synchrony in the neonatal EEG revisited: activation synchrony index as a promising classifier. Frontiers in Human Neuroscience, 2014, 8, 1030.	2.0	27
74	Holistic approach for automated background EEG assessment in asphyxiated full-term infants. Journal of Neural Engineering, 2014, 11, 066007.	3.5	17
75	Towards a truly mobile auditory brain–computer interface: Exploring the P300 to take away. International Journal of Psychophysiology, 2014, 91, 46-53.	1.0	178
76	The dynamics of contour integration: A simultaneous EEG–fMRI study. NeuroImage, 2014, 88, 10-21.	4.2	31
77	Bayesian model selection of template forward models for EEG source reconstruction. NeuroImage, 2014, 93, 11-22.	4.2	21
78	P300 speller BCI with a mobile EEG system: comparison to a traditional amplifier. Journal of Neural Engineering, 2014, 11, 036008.	3.5	113
79	Multiple sparse volumetric priors for distributed EEG source reconstruction. NeuroImage, 2014, 100, 715-724.	4.2	6
80	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
81	Mobile EEG: Towards brain activity monitoring during natural action and cognition. International Journal of Psychophysiology, 2014, 91, 1-2.	1.0	61
82	Relationship of EEG sources of neonatal seizures to acute perinatal brain lesions seen on MRI: A pilot study. Human Brain Mapping, 2013, 34, 2402-2417.	3.6	26
83	Single trial <scp>ERP</scp> reading based on parallel factor analysis. Psychophysiology, 2013, 50, 97-110.	2.4	26
84	The quest for single trial correlations in multimodal EEG-fMRI data. , 2013, 2013, 6027-30.		2
85	Comparison of correlation analysis and JointICA for simultaneous EEG-fMRI recordings on contour integration task. , 2013, 2013, 6019-22.		0
86	ICA Extracts Epileptic Sources from fMRI in EEG-Negative Patients: A Retrospective Validation Study. PLoS ONE, 2013, 8, e78796.	2.5	23
87	Tough doughnuts: affect and the modulation of attention. Frontiers in Human Neuroscience, 2013, 7, 876.	2.0	10
88	Heart Rate Variability in Newborns with Hypoxic Brain Injury. Advances in Experimental Medicine and Biology, 2013, 789, 43-48.	1.6	12
89	How about taking a low-cost, small, and wireless <scp>EEG</scp> for a walk?. Psychophysiology, 2012, 49, 1617-1621.	2.4	455
90	Automated EEG inter-burst interval detection in neonates with mild to moderate postasphyxial encephalopathy. , 2012, 2012, 17-20.		9

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91	ICA Component Selection Based on Sparse Activelet Reconstruction for fMRI Analysis in Refractory Focal Epilepsy. , 2012, , .		0
92	Incorporating structural information from the multichannel EEG improves patient-specific seizure detection. Clinical Neurophysiology, 2012, 123, 2352-2361.	1.5	58
93	The â€œwhyâ€•and â€œhowâ€•of JointICA: Results from a visual detection task. NeuroImage, 2012, 60, 1171-1185.	4.2	42
94	Let's face it, from trial to trial: Comparing procedures for N170 single-trial estimation. NeuroImage, 2012, 63, 1196-1202.	4.2	39
95	A combination of parallel factor and independent component analysis. Signal Processing, 2012, 92, 2990-2999.	3.7	120
96	Auditory Processing under Cross-Modal Visual Load Investigated with Simultaneous EEG-fMRI. PLoS ONE, 2012, 7, e52267.	2.5	28
97	Cross-Modal Phase Reset Predicts Auditory Task Performance in Humans. Journal of Neuroscience, 2011, 31, 3853-3861.	3.6	107
98	Removal of Muscle Artifacts from EEG Recordings of Spoken Language Production. Neuroinformatics, 2010, 8, 135-150.	2.8	115
99	Source Separation From Single-Channel Recordings by Combining Empirical-Mode Decomposition and Independent Component Analysis. IEEE Transactions on Biomedical Engineering, 2010, 57, 2188-2196.	4.2	308
100	Removal of BCG artifacts from EEG recordings inside the MR scanner: A comparison of methodological and validation-related aspects. NeuroImage, 2010, 50, 920-934.	4.2	85
101	Algorithm for imposing SOBI-type constraints on the CP model. , 2008, , .		2
102	Canonical Decomposition of scalp EEG as preprocessing for source localisation. , 2007, , .		0
103	Comparing Feature Based Classifiers and Convolutional Neural Networks to Detect Arrhythmia from Short Segments of ECG. , 0, , .		68
104	Automated detection and removal of flat line segments and large amplitude fluctuations in neonatal electroencephalography. PeerJ, 0, 10, e13734.	2.0	1