

Damien H Coyle

List of Publications by Year in descending order

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Version: 2024-02-01

104
papers

3,050
citations

236925

25
h-index

189892

50
g-index

108
all docs

108
docs citations

108
times ranked

2969
citing authors

#	ARTICLE	IF	CITATIONS
1	Comparative Analysis of Spectral Approaches to Feature Extraction for EEG-Based Motor Imagery Classification. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2008, 16, 317-326.	4.9	352
2	Applying a brain-computer interface to support motor imagery practice in people with stroke for upper limb recovery: a feasibility study. Journal of NeuroEngineering and Rehabilitation, 2010, 7, 60.	4.6	262
3	Games, Gameplay, and BCI: The State of the Art. IEEE Transactions on Games, 2013, 5, 82-99.	1.4	162
4	Critical issues in state-of-the-art brain-computer interface signal processing. Journal of Neural Engineering, 2011, 8, 025002.	3.5	131
5	A thalamo-cortico-thalamic neural mass model to study alpha rhythms in Alzheimer's disease. Neural Networks, 2011, 24, 631-645.	5.9	105
6	A time-series prediction approach for feature extraction in a brain-computer interface. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2005, 13, 461-467.	4.9	102
7	EEG-Based Mobile Robot Control Through an Adaptive Brain-Robot Interface. IEEE Transactions on Systems, Man, and Cybernetics: Systems, 2014, 44, 1278-1285.	9.3	88
8	Quantum Neural Network-Based EEG Filtering for a Brain-Computer Interface. IEEE Transactions on Neural Networks and Learning Systems, 2014, 25, 278-288.	11.3	87
9	Functional neuroimaging of visual creativity: a systematic review and meta-analysis. Brain and Behavior, 2016, 6, e00540.	2.2	87
10	Faster Self-Organizing Fuzzy Neural Network Training and a Hyperparameter Analysis for a Brain-Computer Interface. IEEE Transactions on Systems, Man, and Cybernetics, 2009, 39, 1458-1471.	5.0	82
11	A review of rapid serial visual presentation-based brain-computer interfaces. Journal of Neural Engineering, 2018, 15, 021001.	3.5	81
12	Decoding Imagined 3D Hand Movement Trajectories From EEG: Evidence to Support the Use of Mu, Beta, and Low Gamma Oscillations. Frontiers in Neuroscience, 2018, 12, 130.	2.8	69
13	Neurolinguistics Research Advancing Development of a Direct-Speech Brain-Computer Interface. IScience, 2018, 8, 103-125.	4.1	58
14	Neural network based auto association and time-series prediction for biosignal processing in brain-computer interfaces. IEEE Computational Intelligence Magazine, 2009, 4, 47-59.	3.2	57
15	EEG-based continuous control of a game using a 3 channel motor imagery BCI: BCI game. , 2011, , .		56
16	Gray matter concentration and effective connectivity changes in Alzheimer's disease: a longitudinal structural MRI study. Neuroradiology, 2011, 53, 733-748.	2.2	53
17	Sensorimotor Modulation Assessment and Brain-Computer Interface Training in Disorders of Consciousness. Archives of Physical Medicine and Rehabilitation, 2015, 96, S62-S70.	0.9	49
18	Optimizing Layers Improves CNN Generalization and Transfer Learning for Imagined Speech Decoding from EEG. , 2019, , .		49

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19	Alpha and Theta Rhythm Abnormality in Alzheimer's Disease: A Study Using a Computational Model. <i>Advances in Experimental Medicine and Biology</i> , 2011, 718, 57-73.	1.6	48
20	Evaluation of Hyperparameter Optimization in Machine and Deep Learning Methods for Decoding Imagined Speech EEG. <i>Sensors</i> , 2020, 20, 4629.	3.8	48
21	A Time-Frequency Approach to Feature Extraction for a Brain-Computer Interface with a Comparative Analysis of Performance Measures. <i>Eurasip Journal on Advances in Signal Processing</i> , 2005, 2005, 1.	1.7	44
22	Guest Editorial: Brain/neuronal - Computer game interfaces and interaction. <i>IEEE Transactions on Games</i> , 2013, 5, 77-81.	1.4	35
23	Improving the separability of multiple EEG features for a BCI by neural-time-series-prediction-preprocessing. <i>Biomedical Signal Processing and Control</i> , 2010, 5, 196-204.	5.7	34
24	Is Sensorimotor BCI Performance Influenced Differently by Mono, Stereo, or 3-D Auditory Feedback?. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2014, 22, 431-440.	4.9	34
25	Metastable neural dynamics in Alzheimer's disease are disrupted by lesions to the structural connectome. <i>NeuroImage</i> , 2018, 183, 438-455.	4.2	34
26	Model-based bifurcation and power spectral analyses of thalamocortical alpha rhythm slowing in Alzheimer's Disease. <i>Neurocomputing</i> , 2013, 115, 11-22.	5.9	33
27	Compensating for synaptic loss in Alzheimer's disease. <i>Journal of Computational Neuroscience</i> , 2014, 36, 19-37.	1.0	33
28	Computational Study of Hippocampal-Septal Theta Rhythm Changes Due to Beta-Amyloid-Altered Ionic Channels. <i>PLoS ONE</i> , 2011, 6, e21579.	2.5	30
29	Self-paced brain-controlled wheelchair methodology with shared and automated assistive control. , 2011, , .		28
30	Metastable neural dynamics underlies cognitive performance across multiple behavioural paradigms. <i>Human Brain Mapping</i> , 2020, 41, 3212-3234.	3.6	28
31	Beta-amyloid induced changes in A-type K ⁺ current can alter hippocampo-septal network dynamics. <i>Journal of Computational Neuroscience</i> , 2012, 32, 465-477.	1.0	27
32	Using motor imagery based brain-computer interface for post-stroke rehabilitation. , 2009, , .		26
33	Investigating the Neural Correlates of Pathological Cortical Networks in Alzheimer's Disease Using Heterogeneous Neuronal Models. <i>IEEE Transactions on Biomedical Engineering</i> , 2012, 59, 890-896.	4.2	26
34	Mel Frequency Cepstral Coefficients Enhance Imagined Speech Decoding Accuracy from EEG. , 2018, , .		24
35	A Systematic Review Establishing the Current State-of-the-Art, the Limitations, and the DESIRED Checklist in Studies of Direct Neural Interfacing With Robotic Gait Devices in Stroke Rehabilitation. <i>Frontiers in Neuroscience</i> , 2020, 14, 578.	2.8	24
36	Sensorimotor learning with stereo auditory feedback for a brain-computer interface. <i>Medical and Biological Engineering and Computing</i> , 2013, 51, 285-293.	2.8	22

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37	Compensating for thalamocortical synaptic loss in Alzheimer's disease. <i>Frontiers in Computational Neuroscience</i> , 2014, 8, 65.	2.1	22
38	Evaluating Quantum Neural Network filtered motor imagery brain-computer interface using multiple classification techniques. <i>Neurocomputing</i> , 2015, 170, 161-167.	5.9	22
39	Disrupted Thalamus White Matter Anatomy and Posterior Default Mode Network Effective Connectivity in Amnesic Mild Cognitive Impairment. <i>Frontiers in Aging Neuroscience</i> , 2017, 9, 370.	3.4	22
40	Emotion-Inducing Imagery Versus Motor Imagery for a Brain-Computer Interface. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 850-859.	4.9	21
41	A Covariate Shift Minimisation Method to Alleviate Non-stationarity Effects for an Adaptive Brain-Computer Interface. , 2010, , .		20
42	3D hand motion trajectory prediction from EEG mu and beta bandpower. <i>Progress in Brain Research</i> , 2016, 228, 71-105.	1.4	20
43	Neurogaming With Motion-Onset Visual Evoked Potentials (mVEPs): Adults Versus Teenagers. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2019, 27, 572-581.	4.9	19
44	Continuous EEG classification for a self-paced BCI. , 2009, , .		18
45	Fornix White Matter is Correlated with Resting-State Functional Connectivity of the Thalamus and Hippocampus in Healthy Aging but Not in Mild Cognitive Impairment – A Preliminary Study. <i>Frontiers in Aging Neuroscience</i> , 2015, 7, 10.	3.4	18
46	Decoding Imagined 3D Arm Movement Trajectories From EEG to Control Two Virtual Arms – A Pilot Study. <i>Frontiers in Neurobotics</i> , 2019, 13, 94.	2.8	17
47	Speed of Rapid Serial Visual Presentation of Pictures, Numbers and Words Affects Event-Related Potential-Based Detection Accuracy. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2020, 28, 113-122.	4.9	16
48	Neurofeedback with low-cost, wearable electroencephalography (EEG) reduces symptoms in chronic Post-Traumatic Stress Disorder. <i>Journal of Affective Disorders</i> , 2021, 295, 1319-1334.	4.1	16
49	A Model Selection Method for Nonlinear System Identification Based fMRI Effective Connectivity Analysis. <i>IEEE Transactions on Medical Imaging</i> , 2011, 30, 1365-1380.	8.9	14
50	Gaussian Mixture Model-based noise reduction in resting state fMRI data. <i>Journal of Neuroscience Methods</i> , 2013, 215, 71-77.	2.5	14
51	3D graphics, virtual reality, and motion-onset visual evoked potentials in neurogaming. <i>Progress in Brain Research</i> , 2016, 228, 329-353.	1.4	14
52	Spatio-spectral & temporal parameter searching using class correlation analysis and particle swarm optimization for a brain computer interface. , 2009, , .		13
53	A least angle regression method for fMRI activation detection in phase-encoded experimental designs. <i>NeuroImage</i> , 2010, 52, 1390-1400.	4.2	13
54	Imagined 3D hand movement trajectory decoding from sensorimotor EEG rhythms. , 2016, , .		13

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55	A Bimodal Deep Learning Architecture for EEG-fNIRS Decoding of Overt and Imagined Speech. IEEE Transactions on Biomedical Engineering, 2022, 69, 1983-1994.	4.2	13
56	Modulation of Effective Connectivity in the Default Mode Network at Rest and During a Memory Task. Brain Connectivity, 2015, 5, 60-67.	1.7	12
57	A hybrid ICA-wavelet transform for automated artefact removal in EEG-based emotion recognition. , 2016, , .		12
58	A Hybrid Capsule Network for Hyperspectral Image Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 11824-11839.	4.9	11
59	Extracting features for a brain-computer interface by self-organising fuzzy neural network-based time series prediction. , 2004, 2004, 4371-4.		10
60	Neural time-series prediction preprocessing meets common spatial patterns in a brain-computer interface. , 2008, 2008, 2626-9.		10
61	Learning to modulate sensorimotor rhythms with stereo auditory feedback for a brain-computer interface. , 2012, 2012, 6711-4.		9
62	A multi-class brain-computer interface with SOFNN-based prediction preprocessing. , 2008, , .		7
63	Thalamocortical circuitry and alpha rhythm slowing: An empirical study based on a classic computational model. , 2010, , .		7
64	EEG denoising with a recurrent quantum neural network for a brain-computer interface. , 2011, , .		7
65	A Combination of Pre- and Postprocessing Techniques to Enhance Self-Paced BCIs. Advances in Human-Computer Interaction, 2012, 2012, 1-10.	2.8	7
66	Can teenagers control a 3D racing game using motion-onset visual evoked potentials?. Brain-Computer Interfaces, 2017, 4, 102-113.	1.8	7
67	Long Timescale fMRI Neuronal Adaptation Effects in Human Amblyopic Cortex. PLoS ONE, 2011, 6, e26562.	2.5	7
68	Creating a Nonparametric Brain-Computer Interface with Neural Time-Series Prediction Preprocessing. , 2006, 2006, 2183-6.		6
69	On utilizing self-organizing fuzzy neural networks for financial forecasts in the NN5 forecasting competition. , 2010, , .		6
70	Using acoustic sensors to discriminate between nasal and mouth breathing. International Journal of Bioinformatics Research and Applications, 2012, 8, 382.	0.2	6
71	Unsupervised short-term covariate shift minimization for self-paced BCI. , 2013, , .		6
72	A Least Trimmed Square Regression Method for Second Level fMRI Effective Connectivity Analysis. Neuroinformatics, 2013, 11, 105-118.	2.8	6

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73	Trends in BCI Research I: Brain-Computer Interfaces for Assessment of Patients with Locked-in Syndrome or Disorders of Consciousness. Springer Briefs in Electrical and Computer Engineering, 2017, , 105-125.	0.5	6
74	Interacting with multiple game genres using Motion Onset Visual Evoked Potentials. , 2015, , .		5
75	Motor Imagery BCI with Auditory Feedback as a Mechanism for Assessment and Communication in Disorders of Consciousness. Springer Briefs in Electrical and Computer Engineering, 2017, , 51-69.	0.5	5
76	Enhancing Autonomy and Computational Efficiency of the Self-Organizing Fuzzy Neural Network for a Brain Computer Interface. , 2006, , .		4
77	Sensorimotor-rhythm Modulation Feedback with 3D Vector-base Amplitude Panning - A Brain-computer Interface Pilot Study. , 2012, , .		4
78	Calibration-less detection of steady-state visual evoked potentials-comparisons and combinations of methods. , 2014, , .		4
79	Spectral and Non-linear Analysis of Thalamocortical Neural Mass Model Oscillatory Dynamics. , 2014, , 87-112.		4
80	Predictive-spectral-spatial preprocessing for a multiclass brain-computer interface. , 2010, , .		3
81	Assessing retino-geniculo-cortical connectivities in Alzheimer's Disease with a neural mass model. , 2011, , .		3
82	Employing neuronal networks to investigate the pathophysiological basis of abnormal cortical oscillations in Alzheimer's disease. , 2011, 2011, 2065-8.		3
83	A recurrent quantum neural network model enhances the EEG signal for an improved brain-computer interface. , 2011, , .		3
84	Editorial: Advances in the Integration of Brain-Machine Interfaces and Robotic Devices. Frontiers in Robotics and AI, 2021, 8, 653615.	3.2	3
85	Neural Circuit Models and Neuropathological Oscillations. , 2014, , 673-702.		3
86	Identifying Local Ultrametricity of EEG Time Series for Feature Extraction in a Brain-Computer Interface. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 701-4.	0.5	2
87	Intra- and inter-connectivity influences on event related changes in thalamocortical alpha rhythms. , 2010, , .		2
88	A self-organising fuzzy neural network with locally recurrent self-adaptive synapses. , 2011, , .		2
89	EEG Based Foot Movement Onset Detection with the Probabilistic Classification Vector Machine. Lecture Notes in Computer Science, 2012, , 356-363.	1.3	2
90	Classification effects on Motion-Onset Visual Evoked Potentials using commercially available video games. , 2015, , .		2

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91	Preface. Progress in Brain Research, 2016, 228, xvii-xviii.	1.4	2
92	Computational Neurology: Computational Modeling Approaches in Dementia. , 2021, , 81-89.		2
93	Faster Self-Organizing Fuzzy Neural Network Training and Improved Autonomy with Time-Delayed Synapses for Locally Recurrent Learning. , 0, , 156-183.		2
94	A novelty detection approach to effectively predict conversion from mild cognitive impairment to Alzheimer's disease. International Journal of Machine Learning and Cybernetics, 2023, 14, 213-228.	3.6	2
95	Improving Signal Separability and Inter-Session Stability for a Brain-Computer Interface by Time-Series-Prediction-Preprocessing. , 2005, 2005, 5412-5.		1
96	Maximum likelihood estimation for second level fMRI data analysis with expectation trust region algorithm. Magnetic Resonance Imaging, 2014, 32, 132-149.	1.8	1
97	Action Games, Motor Imagery, and Control Strategies: Toward a Multi-button Controller. , 2017, , 99-132.		1
98	Action Games, Motor Imagery, and Control Strategies: Toward a Multi-button Controller. , 2015, , 1-34.		1
99	United Kingdom and Republic of Ireland Chapter Report [Family Corner. IEEE Computational Intelligence Magazine, 2010, 5, 16-19.	3.2	0
100	A Report on the CIS Second Video Competition [Society Briefs]. IEEE Computational Intelligence Magazine, 2014, 9, 11-12.	3.2	0
101	Modelling Cortical and Thalamocortical Synaptic Loss and Compensation Mechanisms in Alzheimer's Disease. Springer Series in Computational Neuroscience, 2015, , 221-275.	0.3	0
102	Neuroengineering. , 2015, , 727-769.		0
103	Statistical Methods for fMRI Activation and Effective Connectivity Studies. , 2014, , 647-672.		0
104	A Hybrid Multi-Objective Teaching Learning-Based Optimization Using Reference Points and R2 Indicator. , 2022, , .		0