

Fabien Lotte

List of Publications by Year in descending order

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Version: 2024-02-01

101
papers

9,360
citations

136885

32
h-index

118793

62
g-index

119
all docs

119
docs citations

119
times ranked

6208
citing authors

#	ARTICLE	IF	CITATIONS
1	A review of classification algorithms for EEG-based brain-computer interfaces. <i>Journal of Neural Engineering</i> , 2007, 4, R1-R13.	1.8	2,130
2	A review of classification algorithms for EEG-based brain-computer interfaces: a 10 year update. <i>Journal of Neural Engineering</i> , 2018, 15, 031005.	1.8	1,282
3	Regularizing Common Spatial Patterns to Improve BCI Designs: Unified Theory and New Algorithms. <i>IEEE Transactions on Biomedical Engineering</i> , 2011, 58, 355-362.	2.5	817
4	OpenViBE: An Open-Source Software Platform to Design, Test, and Use Brain-Computer Interfaces in Real and Virtual Environments. <i>Presence: Teleoperators and Virtual Environments</i> , 2010, 19, 35-53.	0.3	572
5	Brain-Computer Interfaces, Virtual Reality, and Videogames. <i>Computer</i> , 2008, 41, 66-72.	1.2	294
6	Brain-Computer Interfaces: Beyond Medical Applications. <i>Computer</i> , 2012, 45, 26-34.	1.2	272
7	Riemannian Approaches in Brain-Computer Interfaces: A Review. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2017, 25, 1753-1762.	2.7	243
8	Flaws in current human training protocols for spontaneous Brain-Computer Interfaces: lessons learned from instructional design. <i>Frontiers in Human Neuroscience</i> , 2013, 7, 568.	1.0	225
9	Signal Processing Approaches to Minimize or Suppress Calibration Time in Oscillatory Activity-Based Brain-Computer Interfaces. <i>Proceedings of the IEEE</i> , 2015, 103, 871-890.	16.4	202
10	Consensus on the reporting and experimental design of clinical and cognitive-behavioural neurofeedback studies (CRED-nf checklist). <i>Brain</i> , 2020, 143, 1674-1685.	3.7	188
11	Two Brains, One Game: Design and Evaluation of a Multiuser BCI Video Game Based on Motor Imagery. <i>IEEE Transactions on Games</i> , 2013, 5, 185-198.	1.7	135
12	Predicting Mental Imagery-Based BCI Performance from Personality, Cognitive Profile and Neurophysiological Patterns. <i>PLoS ONE</i> , 2015, 10, e0143962.	1.1	129
13	Why standard brain-computer interface (BCI) training protocols should be changed: an experimental study. <i>Journal of Neural Engineering</i> , 2016, 13, 036024.	1.8	129
14	Learning from other subjects helps reducing Brain-Computer Interface calibration time. , 2010, , .		110
15	Monitoring Pilot's Mental Workload Using ERPs and Spectral Power with a Six-Dry-Electrode EEG System in Real Flight Conditions. <i>Sensors</i> , 2019, 19, 1324.	2.1	108
16	A Tutorial on EEG Signal-processing Techniques for Mental-state Recognition in Brain-Computer Interfaces. , 2014, , 133-161.		103
17	Advances in user-training for mental-imagery-based BCI control. <i>Progress in Brain Research</i> , 2016, 228, 3-35.	0.9	101
18	EEG-based workload estimation across affective contexts. <i>Frontiers in Neuroscience</i> , 2014, 8, 114.	1.4	87

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19	A review of rapid serial visual presentation-based brain-computer interfaces. Journal of Neural Engineering, 2018, 15, 021001.	1.8	81
20	Classification of movement intention by spatially filtered electromagnetic inverse solutions. Physics in Medicine and Biology, 2006, 51, 1971-1989.	1.6	79
21	Classifying EEG for brain computer interfaces using Gaussian processes. Pattern Recognition Letters, 2008, 29, 354-359.	2.6	77
22	Neurofeedback: One of today's techniques in psychiatry?. L'Encephale, 2017, 43, 135-145.	0.3	77
23	Heading for new shores! Overcoming pitfalls in BCI design. Brain-Computer Interfaces, 2017, 4, 60-73.	0.9	73
24	Electrocorticographic representations of segmental features in continuous speech. Frontiers in Human Neuroscience, 2015, 09, 97.	1.0	72
25	Combining BCI with Virtual Reality: Towards New Applications and Improved BCI. Biological and Medical Physics Series, 2012, , 197-220.	0.3	69
26	Comparative study of band-power extraction techniques for Motor Imagery classification. , 2011, , .		60
27	TOBE. , 2016, , .		56
28	A review of user training methods in brain computer interfaces based on mental tasks. Journal of Neural Engineering, 2021, 18, 011002.	1.8	55
29	Exploring Large Virtual Environments by Thoughts Using a Brain-Computer Interface Based on Motor Imagery and High-Level Commands. Presence: Teleoperators and Virtual Environments, 2010, 19, 54-70.	0.3	53
30	Exploring two novel features for EEG-based brain-computer interfaces: Multifractal cumulants and predictive complexity. Neurocomputing, 2012, 79, 87-94.	3.5	52
31	Unimodal Versus Bimodal EEG-fMRI Neurofeedback of a Motor Imagery Task. Frontiers in Human Neuroscience, 2017, 11, 193.	1.0	51
32	Modern Machine-Learning Algorithms: For Classifying Cognitive and Affective States From Electroencephalography Signals. IEEE Systems, Man, and Cybernetics Magazine, 2020, 6, 29-38.	1.2	50
33	Framework for Electroencephalography-based Evaluation of User Experience. , 2016, , .		49
34	Defining and quantifying users' mental imagery-based BCI skills: a first step. Journal of Neural Engineering, 2018, 15, 046030.	1.8	47
35	Comparison of designs towards a subject-independent brain-computer interface based on motor imagery. , 2009, 2009, 4543-6.		46
36	FuRIA: An Inverse Solution Based Feature Extraction Algorithm Using Fuzzy Set Theory for Brain-Computer Interfaces. IEEE Transactions on Signal Processing, 2009, 57, 3253-3263.	3.2	45

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37	Using Recent BCI Literature to Deepen our Understanding of Clinical Neurofeedback: A Short Review. <i>Neuroscience</i> , 2018, 378, 225-233.	1.1	45
38	Spatially Regularized Common Spatial Patterns for EEG Classification. , 2010, , .		43
39	Towards ambulatory brain-computer interfaces. , 2009, , .		38
40	Towards improved BCI based on human learning principles. , 2015, , .		38
41	SEREEGA: Simulating event-related EEG activity. <i>Journal of Neuroscience Methods</i> , 2018, 309, 13-24.	1.3	37
42	Guest Editorial: Brain/neuronal - Computer game interfaces and interaction. <i>IEEE Transactions on Games</i> , 2013, 5, 77-81.	1.7	35
43	Workshops of the Fifth International Brain-Computer Interface Meeting: Defining the Future. <i>Brain-Computer Interfaces</i> , 2014, 1, 27-49.	0.9	35
44	The Mind-Mirror: See your brain in action in your head using EEG and augmented reality. , 2014, , .		35
45	On assessing neurofeedback effects: should double-blind replace neurophysiological mechanisms?. <i>Brain</i> , 2017, 140, e63-e63.	3.7	34
46	EEG neurofeedback research: A fertile ground for psychiatry?. <i>L'Encephale</i> , 2019, 45, 245-255.	0.3	33
47	Teegi. , 2014, , .		32
48	Brain-Computer Interface Contributions to Neuroergonomics. , 2019, , 43-48.		32
49	Classifying EEG Signals during Stereoscopic Visualization to Estimate Visual Comfort. <i>Computational Intelligence and Neuroscience</i> , 2016, 2016, 1-11.	1.1	29
50	Continuous Tactile Feedback for Motor-Imagery Based Brain-Computer Interaction in a Multitasking Context. <i>Lecture Notes in Computer Science</i> , 2015, , 488-505.	1.0	29
51	Studying the Use of Fuzzy Inference Systems for Motor Imagery Classification. <i>IEEE Transactions on Neural Systems and Rehabilitation Engineering</i> , 2007, 15, 322-324.	2.7	27
52	Long-Term BCI Training of a Tetraplegic User: Adaptive Riemannian Classifiers and User Training. <i>Frontiers in Human Neuroscience</i> , 2021, 15, 635653.	1.0	27
53	Averaging covariance matrices for EEG signal classification based on the CSP: An empirical study. , 2015, , .		26
54	Experimenters' Influence on Mental-Imagery based Brain-Computer Interface User Training. <i>International Journal of Human Computer Studies</i> , 2021, 149, 102603.	3.7	26

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55	Brain-computer interfaces for 3D games. , 2011, , .		22
56	Why we should systematically assess, control and report somatosensory impairments in BCI-based motor rehabilitation after stroke studies. <i>NeuroImage: Clinical</i> , 2020, 28, 102417.	1.4	22
57	Grand Challenges in Neurotechnology and System Neuroergonomics. <i>Frontiers in Neuroergonomics</i> , 2020, 1, .	0.6	21
58	Towards Adaptive Classification using Riemannian Geometry approaches in Brain-Computer Interfaces. , 2019, , .		20
59	Optimizing spatial filter pairs for EEG classification based on phase-synchronization. , 2014, , .		19
60	Towards Robust Neuroadaptive HCI. , 2018, , .		19
61	Assessing the zone of comfort in stereoscopic displays using EEG. , 2014, , .		17
62	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.	2.7	16
63	Mind the Traps! Design Guidelines for Rigorous BCI Experiments. , 2018, , 613-634.		16
64	A physical learning companion for Mental-Imagery BCI User Training. <i>International Journal of Human Computer Studies</i> , 2020, 136, 102380.	3.7	15
65	Multi-Session Influence of Two Modalities of Feedback and Their Order of Presentation on MI-BCI User Training. <i>Multimodal Technologies and Interaction</i> , 2021, 5, 12.	1.7	15
66	Characterizing Regularization Techniques for Spatial Filter Optimization in Oscillatory EEG Regression Problems. <i>Neuroinformatics</i> , 2019, 17, 235-251.	1.5	13
67	Towards Identifying Optimal Biased Feedback for Various User States and Traits in Motor Imagery BCI. <i>IEEE Transactions on Biomedical Engineering</i> , 2022, 69, 1101-1110.	2.5	13
68	Using scalp electrical biosignals to control an object by concentration and relaxation tasks: Design and evaluation. , 2011, 2011, 6299-302.		11
69	Active inference as a unifying, generic and adaptive framework for a P300-based BCI. <i>Journal of Neural Engineering</i> , 2020, 17, 016054.	1.8	10
70	A Generic Framework for Adaptive EEG-Based BCI Training and Operation. , 2018, , 595-612.		10
71	Retrospective on the First Passive Brain-Computer Interface Competition on Cross-Session Workload Estimation. <i>Frontiers in Neuroergonomics</i> , 2022, 3, .	0.6	10
72	FuRIA: A Novel Feature Extraction Algorithm for Brain-Computer Interfaces using Inverse Models and Fuzzy Regions of Interest. , 2007, , .		9

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73	Scientific Outreach with Teegi, a Tangible EEG Interface to Talk about Neurotechnologies. , 2017, , .		9
74	Turning negative into positives! Exploiting "negative"™ results in Brain-Machine Interface (BMI) research. Brain-Computer Interfaces, 2019, 6, 178-189.	0.9	9
75	Brain computer interface vs walking interface in VR. , 2012, , .		8
76	Neural Mechanisms of Social Emotion Perception: An EEG Hyper-Scanning Study. , 2018, , .		8
77	Workshops of the seventh international brain-computer interface meeting: not getting lost in translation. Brain-Computer Interfaces, 2019, 6, 71-101.	0.9	8
78	Neurofeedback: A challenge for integrative clinical neurophysiological studies. Neurophysiologie Clinique, 2020, 50, 1-3.	1.0	8
79	When should MI-BCI feature optimization include prior knowledge, and which one?. Brain-Computer Interfaces, 2022, 9, 115-128.	0.9	8
80	Pattern rejection strategies for the design of self-paced EEG-based Brain-Computer Interfaces. , 2008, , .		7
81	Towards Explanatory Feedback for User Training in Brain-Computer Interfaces. , 2015, , .		7
82	Synthetic Evidential Study as Augmented Collective Thought Process " Preliminary Report. Lecture Notes in Computer Science, 2015, , 13-22.	1.0	7
83	A BCI challenge for the signal-processing community: considering the user in the loop. , 0, , 143-172.		7
84	Towards a spatial ability training to improve Mental Imagery based Brain-Computer Interface (MI-BCI) performance: A Pilot study. , 2016, , .		6
85	Channel Selection over Riemannian Manifold with Non-Stationarity Consideration for Brain-Computer Interface Applications. , 2020, , .		6
86	BioPyC, an Open-Source Python Toolbox for Offline Electroencephalographic and Physiological Signals Classification. Sensors, 2021, 21, 5740.	2.1	6
87	Detecting EEG outliers for BCI on the Riemannian manifold using spectral clustering. , 2020, 2020, 438-441.		5
88	Guidelines to use Transfer Learning for Motor Imagery Detection: an experimental study. , 2021, , .		5
89	Human Learning for Brain-Computer Interfaces. , 2016, , 233-250.		4
90	User-Centered BCI Videogame Design. , 2017, , 225-250.		4

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91	Estimating Visual Comfort in Stereoscopic Displays Using Electroencephalography: A Proof-of-Concept. Lecture Notes in Computer Science, 2015, , 354-362.	1.0	4
92	Assessing The Relevance Of Neurophysiological Patterns To Predict Motor Imagery-based BCI Usersâ€™ Performance. , 2020, , .		4
93	A performance model of selection techniques for p300-based brain-computer interfaces. , 2009, , .		3
94	When HCI Meets Neurotechnologies. , 2017, , .		3
95	Editorial: Detection and Estimation of Working Memory States and Cognitive Functions Based on Neurophysiological Measures. Frontiers in Human Neuroscience, 2018, 12, 440.	1.0	3
96	Riemannian Channel Selection for BCI With Between-Session Non-Stationarity Reduction Capabilities. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2022, 30, 1158-1171.	2.7	3
97	User-Centred BCI Videogame Design. , 2015, , 1-26.		2
98	Recent Advances in EEG-Based Neuroergonomics for Humanâ€™Computer Interaction. , 2018, , 275.		1
99	Statistical Learning for BCIs. , 2016, , 185-205.		0
100	Apprendre Ã contrÃªler une interface cerveau-ordinateur: le projet BrainConquest. Annales Des Mines - RA©alitÃ©s Industrielles, 2021, AoÃ»t 2021, 16-22.	0.0	0
101	Towards measuring states of epistemic curiosity through electroencephalographic signals. , 2020, , .		0