Klaus-Robert MÃ¼ller

List of Publications by Year
in descending order

424 papers	59,896 citations	2318 98 h-index	1155 229 g-index
453 all docs	453 docs citations	453 times ranked	34783 citing authors

#	Article	IF	Citations
1	Nonlinear Component Analysis as a Kernel Eigenvalue Problem. Neural Computation, 1998, 10, 1299-1319.	1.3	6,336
2	An introduction to kernel-based learning algorithms. IEEE Transactions on Neural Networks, 2001, 12, 181-201.	4.8	2,811
3	On Pixel-Wise Explanations for Non-Linear Classifier Decisions by Layer-Wise Relevance Propagation. PLoS ONE, 2015, 10, e0130140.	1.1	2,319
4	Optimizing Spatial filters for Robust EEG Single-Trial Analysis. IEEE Signal Processing Magazine, 2008, 25, 41-56.	4.6	1,598
5	Fast and Accurate Modeling of Molecular Atomization Energies with Machine Learning. Physical Review Letters, 2012, 108, 058301.	2.9	1,523
6	Methods for interpreting and understanding deep neural networks. , 2018, 73, 1-15.		1,458
7	SchNet â€“ A deep learning architecture for molecules and materials. Journal of Chemical Physics, 2018, 148, 241722.	1.2	1,083
8	Soft Margins for AdaBoost. Machine Learning, 2001, 42, 287-320.	3.4	1,000
9	Input space versus feature space in kernel-based methods. IEEE Transactions on Neural Networks, 1999, 10, 1000-1017.	4.8	953
10	Single-trial analysis and classification of ERP components â€” A tutorial. NeuroImage, 2011, 56, 814-825.	2.1	946
11	Efficient BackProp. Lecture Notes in Computer Science, 2012, , 9-48.	1.0	909
12	Quantum-chemical insights from deep tensor neural networks. Nature Communications, 2017, 8, 13890.	5.8	884
13	The BCI competition III: validating alternative approaches to actual BCI problems. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2006, 14, 153-159.	2.7	832
14	Explaining nonlinear classification decisions with deep Taylor decomposition. Pattern Recognition, 2017, 65, 211-222.	5.1	810
15	The non-invasive Berlin Brainâ€“Computer Interface: Fast acquisition of effective performance in untrained subjects. NeuroImage, 2007, 37, 539-550.	2.1	790
16	Deep Neural Networks for No-Reference and Full-Reference Image Quality Assessment. IEEE Transactions on Image Processing, 2018, 27, 206-219.	6.0	728
17	Machine learning of accurate energy-conserving molecular force fields. Science Advances, 2017, 3, e1603015.	4.7	695
18	Review of the BCI Competition IV. Frontiers in Neuroscience, 2012, 6, 55.	1.4	686

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19	Robust and Communication-Efficient Federated Learning From Non-i.i.d. Data. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 3400-3413.	7.2	682
20	Evaluating the Visualization of What a Deep Neural Network Has Learned. IEEE Transactions on Neural Networks and Learning Systems, 2017, 28, 2660-2673.	7.2	612
21	Unmasking Clever Hans predictors and assessing what machines really learn. Nature Communications, 2019, 10, 1096.	5.8	602
22	Enhanced performance by a hybrid NIRSâ€“EEG brain computer interface. NeuroImage, 2012, 59, 519-529.	2.1	595
23	Introduction to machine learning for brain imaging. NeuroImage, 2011, 56, 387-399.	2.1	592
24	Neurophysiological predictor of SMR-based BCI performance. NeuroImage, 2010, 51, 1303-1309.	2.1	576
25	Machine Learning Predictions of Molecular Properties: Accurate Many-Body Potentials and Nonlocality in Chemical Space. Journal of Physical Chemistry Letters, 2015, 6, 2326-2331.	2.1	575
26	The BCI Competition 2003: Progress and Perspectives in Detection and Discrimination of EEG Single Trials. IEEE Transactions on Biomedical Engineering, 2004, 51, 1044-1051.	2.5	535
27	Machine Learning Force Fields. Chemical Reviews, 2021, 121, 10142-10186.	23.0	528
28	Spatio-Spectral Filters for Improving the Classification of Single Trial EEG. IEEE Transactions on Biomedical Engineering, 2005, 52, 1541-1548.	2.5	519
29	Boosting Bit Rates in Noninvasive EEG Single-Trial Classifications by Feature Combination and Multiclass Paradigms. IEEE Transactions on Biomedical Engineering, 2004, 51, 993-1002.	2.5	506
30	The connection between regularization operators and support vector kernels. Neural Networks, 1998, 11, 637-649.	3.3	505
31	Assessment and Validation of Machine Learning Methods for Predicting Molecular Atomization Energies. Journal of Chemical Theory and Computation, 2013, 9, 3404-3419.	2.3	499
32	Finding Density Functionals with Machine Learning. Physical Review Letters, 2012, 108, 253002.	2.9	495
33	Bypassing the Kohn-Sham equations with machine learning. Nature Communications, 2017, 8, 872.	5.8	485
34	Robustly Estimating the Flow Direction of Information in Complex Physical Systems. Physical Review Letters, 2008, 100, 234101.	2.9	484
35	Machine learning of molecular electronic properties in chemical compound space. New Journal of Physics, 2013, 15, 095003.	1.2	482
36	Machine Learning for Molecular Simulation. Annual Review of Physical Chemistry, 2020, 71, 361-390.	4.8	456

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37	Explaining Deep Neural Networks and Beyond: A Review of Methods and Applications. Proceedings of the IEEE, 2021, 109, 247-278.	16.4	455
38	Towards exact molecular dynamics simulations with machine-learned force fields. Nature Communications, 2018, 9, 3887.	5.8	452
39	Machine learning for real-time single-trial EEG-analysis: From brainâ€“computer interfacing to mental state monitoring. Journal of Neuroscience Methods, 2008, 167, 82-90.	1.3	413
40	A Unifying Review of Deep and Shallow Anomaly Detection. Proceedings of the IEEE, 2021, 109, 756-795.	16.4	375
41	Engineering support vector machine kernels that recognize translation initiation sites. Bioinformatics, 2000, 16, 799-807.	1.8	373
42	Towards adaptive classification for BCI. Journal of Neural Engineering, 2006, 3, R13-R23.	1.8	360
43	Combined Optimization of Spatial and Temporal Filters for Improving Brain-Computer Interfacing. IEEE Transactions on Biomedical Engineering, 2006, 53, 2274-2281.	2.5	318
44	Clustered Federated Learning: Model-Agnostic Distributed Multitask Optimization Under Privacy Constraints. IEEE Transactions on Neural Networks and Learning Systems, 2021, 32, 3710-3722.	7.2	316
45	Combining Machine Learning and Computational Chemistry for Predictive Insights Into Chemical Systems. Chemical Reviews, 2021, 121, 9816-9872.	23.0	287
46	The Berlin Brain-Computer Interface: Accurate performance from first-session in BCI-naive subjects. IEEE Transactions on Biomedical Engineering, 2008, 55, 2452-2462.	2.5	286
47	Unifying machine learning and quantum chemistry with a deep neural network for molecular wavefunctions. Nature Communications, 2019, 10, 5024.	5.8	282
48	Layer-Wise Relevance Propagation: An Overview. Lecture Notes in Computer Science, 2019, , 193-209.	1.0	282
49	Interpretable deep neural networks for single-trial EEG classification. Journal of Neuroscience Methods, 2016, 274, 141-145.	1.3	280
50	The Berlin Brainâ€“Computer Interface: Non-Medical Uses of BCI Technology. Frontiers in Neuroscience, 2010, 4, 198.	1.4	277
51	A critical assessment of connectivity measures for EEG data: A simulation study. NeuroImage, 2013, 64, 120-133.	2.1	276
52	Myoelectric Control of Artificial Limbsâ€”Is There a Need to Change Focus? [In the Spotlight]. IEEE Signal Processing Magazine, 2012, 29, 152-150.	4.6	275
53	Asymptotic statistical theory of overtraining and cross-validation. IEEE Transactions on Neural Networks, 1997, 8, 985-996.	4.8	274
54	The Berlin brain-computer interface: EEG-based communication without subject training. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2006, 14, 147-152.	2.7	264

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55	Benchmark Data Set for in Silico Prediction of Ames Mutagenicity. Journal of Chemical Information and Modeling, 2009, 49, 2077-2081.	2.5	260
56	A regularized discriminative framework for EEG analysis with application to brainâ€“computer interface. NeuroImage, 2010, 49, 415-432.	2.1	255
57	On the influence of high-pass filtering on ICA-based artifact reduction in EEG-ERP. , 2015, 2015, 4101-5.		250
58	Toward Unsupervised Adaptation of LDA for Brainâ€“Computer Interfaces. IEEE Transactions on Biomedical Engineering, 2011, 58, 587-597.	2.5	246
59	SchNetPack: A Deep Learning Toolbox For Atomistic Systems. Journal of Chemical Theory and Computation, 2019, 15, 448-455.	2.3	240
60	Towards Explainable Artificial Intelligence. Lecture Notes in Computer Science, 2019, , 5-22.	1.0	234
61	Psychological predictors of SMR-BCI performance. Biological Psychology, 2012, 89, 80-86.	1.1	228
62	Subject-independent mental state classification in single trials. Neural Networks, 2009, 22, 1305-1312.	3.3	220
63	A convolutional neural network for steady state visual evoked potential classification under ambulatory environment. PLoS ONE, 2017, 12, e0172578.	1.1	214
64	Towards Zero Training for Brain-Computer Interfacing. PLoS ONE, 2008, 3, e2967.	1.1	212
65	Applicability Domains for Classification Problems: Benchmarking of Distance to Models for Ames Mutagenicity Set. Journal of Chemical Information and Modeling, 2010, 50, 2094-2111.	2.5	202
66	Finding Stationary Subspaces in Multivariate Time Series. Physical Review Letters, 2009, 103, 214101.	2.9	200
67	Constructing boosting algorithms from SVMs: an application to one-class classification. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2002, 24, 1184-1199.	9.7	197
68	Quantum chemical accuracy from density functional approximations via machine learning. Nature Communications, 2020, 11, 5223.	5.8	187
69	TDSEP â€" an efficient algorithm for blind separation using time structure. Perspectives in Neural Computing, 1998, , 675-680.	0.1	185
70	Exploring chemical compound space with quantum-based machine learning. Nature Reviews Chemistry, 2020, 4, 347-358.	13.8	184
71	Explaining Recurrent Neural Network Predictions in Sentiment Analysis. , 2017, , .		179
72	Boosting bit rates and error detection for the classification of fast-paced motor commands based on single-trial EEG analysis. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2003, 11, 127-131.	2.7	178

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73	Stationary common spatial patterns for brainâ€“computer interfacing. Journal of Neural Engineering, 2012, 9, 026013.	1.8	176
74	Machine-Learning-Based Coadaptive Calibration for Brain-Computer Interfaces. Neural Computation, 2011, 23, 791-816.	1.3	175
75	The Berlin Brain-Computer Interface: Progress Beyond Communication and Control. Frontiers in Neuroscience, 2016, 10, 530.	1.4	172
76	Single Trial Classification of Motor Imagination Using 6 Dry EEG Electrodes. PLoS ONE, 2007, 2, e637.	1.1	170
77	BCI meeting 2005-workshop on BCI signal processing: feature extraction and translation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2006, 14, 135-138.	2.7	167
78	The Berlin Brain-Computer Interface (BBCI) â€“ towards a new communication channel for online control in gaming applications. Multimedia Tools and Applications, 2007, 33, 73-90.	2.6	167
79	Transferring Subspaces Between Subjects in Brain–Computer Interfacing. IEEE Transactions on Biomedical Engineering, 2013, 60, 2289-2298.	2.5	166
80	A lower limb exoskeleton control system based on steady state visual evoked potentials. Journal of Neural Engineering, 2015, 12, 056009.	1.8	163
81	Toward a Direct Measure of Video Quality Perception Using EEG. IEEE Transactions on Image Processing, 2012, 21, 2619-2629.	6.0	159
82	Constructing descriptive and discriminative nonlinear features: rayleigh coefficients in kernel feature spaces. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2003, 25, 623-628.	9.7	158
83	Explaining the unique nature of individual gait patterns with deep learning. Scientific Reports, 2019, 9, 2391.	1.6	158
84	"What is relevant in a text document?": An interpretable machine learning approach. PLoS ONE, 2017, 12, e0181142.	1.1	157
85	Layer-Wise Relevance Propagation for Neural Networks with Local Renormalization Layers. Lecture Notes in Computer Science, 2016, , 63-71.	1.0	154
86	Open Access Dataset for EEG+NIRS Single-Trial Classification. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2017, 25, 1735-1745.	2.7	148
87	Divergence-Based Framework for Common Spatial Patterns Algorithms. IEEE Reviews in Biomedical Engineering, 2014, 7, 50-72.	13.1	145
88	Co-adaptive calibration to improve BCI efficiency. Journal of Neural Engineering, 2011, 8, 025009.	1.8	143
89	sGDML: Constructing accurate and data efficient molecular force fields using machine learning. Computer Physics Communications, 2019, 240, 38-45.	3.0	137
90	Towards Noninvasive Hybrid Brainâ€“Computer Interfaces: Framework, Practice, Clinical Application, and Beyond. Proceedings of the IEEE, 2015, 103, 926-943.	16.4	133

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91	Understanding machineâ€learned density functionals. International Journal of Quantum Chemistry, 2016, 116, 819-833.	1.0	132
92	Improving the Robustness of Myoelectric Pattern Recognition for Upper Limb Prostheses by Covariate Shift Adaptation. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2016, 24, 961-970.	2.7	126
93	A novel mechanism for evoked responses in the human brain. European Journal of Neuroscience, 2007, 25, 3146-3154.	1.2	123
94	Analysis of Multimodal Neuroimaging Data. IEEE Reviews in Biomedical Engineering, 2011, 4, 26-58.	13.1	122
95	Simultaneous acquisition of EEG and NIRS during cognitive tasks for an open access dataset. Scientific Data, 2018, 5, 180003.	2.4	114
96	Effect of higher frequency on the classification of steady-state visual evoked potentials. Journal of Neural Engineering, 2016, 13, 016014.	1.8	110
97	M3BA: A Mobile, Modular, Multimodal Biosignal Acquisition Architecture for Miniaturized EEG-NIRS-Based Hybrid BCI and Monitoring. IEEE Transactions on Biomedical Engineering, 2017, 64, 1199-1210.	2.5	109
98	Combining sparsity and rotational invariance in EEG/MEG source reconstruction. NeuroImage, 2008, 42, 726-738.	2.1	108
99	Scoring of tumor-infiltrating lymphocytes: From visual estimation to machine learning. Seminars in Cancer Biology, 2018, 52, 151-157.	4.3	108
100	SpookyNet: Learning force fields with electronic degrees of freedom and nonlocal effects. Nature Communications, 2021, 12, 7273.	5.8	108
101	Analyzing Classifiers: Fisher Vectors and Deep Neural Networks. , 2016, , .		107
102	Artifact reduction in magnetoneurography based on time-delayed second-order correlations. IEEE Transactions on Biomedical Engineering, 2000, 47, 75-87.	2.5	106
103	Pruning by explaining: A novel criterion for deep neural network pruning. Pattern Recognition, 2021, 115, 107899.	5.1	104
104	A data analysis competition to evaluate machine learning algorithms for use in brain-computer interfaces. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2003, 11, 184-185.	2.7	101
105	Modeling Sparse Connectivity Between Underlying Brain Sources for EEG/MEG. IEEE Transactions on Biomedical Engineering, 2010, 57, 1954-1963.	2.5	101
106	Kernel-Based Nonlinear Blind Source Separation. Neural Computation, 2003, 15, 1089-1124.	1.3	100
107	Machine learning analysis of DNA methylation profiles distinguishes primary lung squamous cell carcinomas from head and neck metastases. Science Translational Medicine, 2019, 11, .	5.8	100
108	Sparse Binary Compression: Towards Distributed Deep Learning with minimal Communication. , 2019, , .		97

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109	Resolving challenges in deep learning-based analyses of histopathological images using explanation methods. Scientific Reports, 2020, 10, 6423.	1.6	97
110	SPoC: A novel framework for relating the amplitude of neuronal oscillations to behaviorally relevant parameters. NeuroImage, 2014, 86, 111-122.	2.1	95
111	Large-scale EEG/MEG source localization with spatial flexibility. NeuroImage, 2011, 54, 851-859.	2.1	94
112	Optimizing transition states via kernel-based machine learning. Journal of Chemical Physics, 2012, 136, 174101.	1.2	92
113	Orbital-free bond breaking via machine learning. Journal of Chemical Physics, 2013, 139, 224104.	1.2	92
114	Classifying â€˜Drug-likeness' with Kernel-Based Learning Methods. Journal of Chemical Information and Modeling, 2005, 45, 249-253.	2.5	90
115	Understanding kernel ridge regression: Common behaviors from simple functions to density functionals. International Journal of Quantum Chemistry, 2015, 115, 1115-1128.	1.0	89
116	A New Discriminative Kernel from Probabilistic Models. Neural Computation, 2002, 14, 2397-2414.	1.3	88
117	Motion-Based Rapid Serial Visual Presentation for Gaze-Independent Brain-Computer Interfaces. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2018, 26, 334-343.	2.7	88
118	Predicting BCI performance to study BCI illiteracy. BMC Neuroscience, 2009, 10, .	0.8	81
119	Molecular force fields with gradient-domain machine learning: Construction and application to dynamics of small molecules with coupled cluster forces. Journal of Chemical Physics, 2019, 150, 114102.	1.2	81
120	An Efficient ERP-Based Brain-Computer Interface Using Random Set Presentation and Face Familiarity. PLoS ONE, 2014, 9, e111157.	1.1	79
121	Multivariate Machine Learning Methods for Fusing Multimodal Functional Neuroimaging Data. Proceedings of the IEEE, 2015, 103, 1507-1530.	16.4	79
122	Layer-Wise Relevance Propagation for Deep Neural Network Architectures. Lecture Notes in Electrical Engineering, 2016, , 913-922.	0.3	79
123	Temporal kernel CCA and its application in multimodal neuronal data analysis. Machine Learning, 2010, 79, 5-27.	3.4	77
124	Spatial Filtering for Robust Myoelectric Control. IEEE Transactions on Biomedical Engineering, 2012, 59, 1436-1443.	2.5	77
125	Towards CRISP-ML(Q): A Machine Learning Process Model with Quality Assurance Methodology. Machine Learning and Knowledge Extraction, 2021, 3, 392-413.	3.2	76
126	Annealed Competition of Experts for a Segmentation and Classification of Switching Dynamics. Neural Computation, 1996, 8, 340-356.	1.3	75

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127	Integrating dynamic stopping, transfer learning and language models in an adaptive zero-training ERP speller. Journal of Neural Engineering, 2014, 11, 035005.	1.8	75
128	Learning From More Than One Data Source: Data Fusion Techniques for Sensorimotor Rhythm-Based Brainâ€“Computer Interfaces. Proceedings of the IEEE, 2015, 103, 891-906.	16.4	75
129	Designing for uncertain, asymmetric control: Interaction design for brainâ€“computer interfaces. International Journal of Human Computer Studies, 2009, 67, 827-841.	3.7	74
130	Relationship between neural and hemodynamic signals during spontaneous activity studied with temporal kernel CCA. Magnetic Resonance Imaging, 2010, 28, 1095-1103.	1.0	72
131	Morphological and molecular breast cancer profiling through explainable machine learning. Nature Machine Intelligence, 2021, 3, 355-366.	8.3	72
132	A resampling approach to estimate the stability of one-dimensional or multidimensional independent components. IEEE Transactions on Biomedical Engineering, 2002, 49, 1514-1525.	2.5	71
133	Enhancing the Signal-to-Noise Ratio of ICA-Based Extracted ERPs. IEEE Transactions on Biomedical Engineering, 2006, 53, 601-607.	2.5	71
134	A large scale screening study with a SMR-based BCI: Categorization of BCI users and differences in their SMR activity. PLoS ONE, 2019, 14, e0207351.	1.1	71
135	Accurate Solubility Prediction with Error Bars for Electrolytes:â€‰ A Machine Learning Approach. Journal of Chemical Information and Modeling, 2007, 47, 407-424.	2.5	70
136	Inverse design of 3d molecular structures with conditional generative neural networks. Nature Communications, 2022, 13, 973.	5.8	70
137	From outliers to prototypes: Ordering data. Neurocomputing, 2006, 69, 1608-1618.	3.5	69
138	Motor Imagery for Severely Motor-Impaired Patients: Evidence for Brain-Computer Interfacing as Superior Control Solution. PLoS ONE, 2014, 9, e104854.	1.1	69
139	Concurrent Adaptation of Human and Machine Improves Simultaneous and Proportional Myoelectric Control. IEEE Transactions on Neural Systems and Rehabilitation Engineering, 2015, 23, 618-627.	2.7	69
140	On Optimal Channel Configurations for SMR-based Brainâ€“Computer Interfaces. Brain Topography, 2010, 23, 186-193.	0.8	68
141	Improved physiological noise regression in fNIRS: A multimodal extension of the General Linear Model using temporally embedded Canonical Correlation Analysis. NeuroImage, 2020, 208, 116472.	2.1	68
142	Toward noninvasive brain-computer interfaces. IEEE Signal Processing Magazine, 2006, 23, 128-126.	4.6	67
143	Input-dependent estimation of generalization error under covariate shift. Statistics & Risk Modeling, 2005, 23, .	0.3	64
144	On the Byzantine Robustness of Clustered Federated Learning. , 2020, , .		63

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145	Predicting BCI Subject Performance Using Probabilistic Spatio-Temporal Filters. PLoS ONE, 2014, 9, e87056.	1.1	62
146	True Zero-Training Brain-Computer Interfacing â€“ An Online Study. PLoS ONE, 2014, 9, e102504.	1.1	61
147	Kernel PCA Pattern Reconstruction via Approximate Pre-Images. Perspectives in Neural Computing, 1998, , 147-152.	0.1	60
148	Near-infrared spectroscopy (NIRS)-based eyes-closed brain-computer interface (BCI) using prefrontal cortex activation due to mental arithmetic. Scientific Reports, 2016, 6, 36203.	1.6	59
149	Many-Body Descriptors for Predicting Molecular Properties with Machine Learning: Analysis of Pairwise and Three-Body Interactions in Molecules. Journal of Chemical Theory and Computation, 2018, 14, 2991-3003.	2.3	59
150	From Machine Learning to Natural Product Derivatives that Selectively Activate Transcription Factor PPARÎ³. ChemMedChem, 2010, 5, 191-194.	1.6	58
151	Analyzing Neuroimaging Data Through Recurrent Deep Learning Models. Frontiers in Neuroscience, 2019, 13, 1321.	1.4	58
152	Improving the Caenorhabditis elegans Genome Annotation Using Machine Learning. PLoS Computational Biology, 2007, 3, e20.	1.5	57
153	A Note on Brain Actuated Spelling with the Berlin Brain-Computer Interface. Lecture Notes in Computer Science, 2007, , 759-768.	1.0	57
154	Independent component analysis of noninvasively recorded cortical magnetic DC-fields in humans. IEEE Transactions on Biomedical Engineering, 2000, 47, 594-599.	2.5	56
155	Berlin Brainâ€“Computer Interfaceâ€”The HCI communication channel for discovery. International Journal of Human Computer Studies, 2007, 65, 460-477.	3.7	56
156	Asymptotically unbiased estimation of physical observables with neural samplers. Physical Review E, 2020, 101, 023304.	0.8	56
157	Explaining Predictions of Non-Linear Classifiers in NLP. , 2016, , .		55
158	Combining Multiple Hypothesis Testing with Machine Learning Increases the Statistical Power of Genome-wide Association Studies. Scientific Reports, 2016, 6, 36671.	1.6	53
159	Validity of Time Reversal for Testing Granger Causality. IEEE Transactions on Signal Processing, 2016, 64, 2746-2760.	3.2	53
160	Towards explaining anomalies: A deep Taylor decomposition of one-class models. Pattern Recognition, 2020, 101, 107198.	5.1	52
161	A Numerical Study on Learning Curves in Stochastic Multilayer Feedforward Networks. Neural Computation, 1996, 8, 1085-1106.	1.3	51
162	Finding stationary brain sources in EEG data. , 2010, 2010, 2810-3.		51

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163	Measuring Phase Synchronization of Superimposed Signals. Physical Review Letters, 2005, 94, 084102.	2.9	50
164	Immediate brain plasticity after one hour of brainâ€“computer interface (BCI). Journal of Physiology, 2021, 599, 2435-2451.	1.3	50
165	On the information and representation of non-Euclidean pairwise data. Pattern Recognition, 2006, 39, 1815-1826.	5.1	49
166	On-line learning in changing environments with applications in supervised and unsupervised learning. Neural Networks, 2002, 15, 743-760.	3.3	48
167	EEG-based BCI for the linear control of an upper-limb neuroprosthesis. Medical Engineering and Physics, 2016, 38, 1195-1204.	0.8	48
168	Capturing intensive and extensive DFT/TDDFT molecular properties with machine learning. European Physical Journal B, 2018, 91, 1.	0.6	48
169	Real-time robustness evaluation of regression based myoelectric control against arm position change and donning/doffing. PLoS ONE, 2017, 12, e0186318.	1.1	47
170	Machine learning of solvent effects on molecular spectra and reactions. Chemical Science, 2021, 12, 11473-11483.	3.7	47
171	Visual Interpretation of Kernelâ€Based Prediction Models. Molecular Informatics, 2011, 30, 817-826.	1.4	46
172	EEG-based classification of video quality perception using steady state visual evoked potentials (SSVEPs). Journal of Neural Engineering, 2015, 12, 026012.	1.8	46
173	Compact and Computationally Efficient Representation of Deep Neural Networks. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 772-785.	7.2	46
174	Ensembles of adaptive spatial filters increase BCI performance: an online evaluation. Journal of Neural Engineering, 2016, 13, 046003.	1.8	45
175	A mathematical model for the two-learners problem. Journal of Neural Engineering, 2017, 14, 036005.	1.8	45
176	Explaining and Interpreting LSTMs. Lecture Notes in Computer Science, 2019, , 211-238.	1.0	44
177	Identification of nonstationary dynamics in physiological recordings. Biological Cybernetics, 2000, 83, 73-84.	0.6	42
178	An adaptive deep reinforcement learning framework enables curling robots with human-like performance in real-world conditions. Science Robotics, 2020, 5, .	9.9	42
179	Finding and removing Clever Hans: Using explanation methods to debug and improve deep models. Information Fusion, 2022, 77, 261-295.	11.7	42
180	Estimating the domain of applicability for machine learning QSAR models: a study on aqueous solubility of drug discovery molecules. Journal of Computer-Aided Molecular Design, 2007, 21, 485-498.	1.3	41

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181	CSP patches: an ensemble of optimized spatial filters. An evaluation study. Journal of Neural Engineering, 2011, 8, 025012.	1.8	41
182	The LDA beamformer: Optimal estimation of ERP source time series using linear discriminant analysis. NeuroImage, 2016, 129, 279-291.	2.1	41
183	Artificial intelligence and pathology: From principles to practice and future applications in histomorphology and molecular profiling. Seminars in Cancer Biology, 2022, 84, 129-143.	4.3	41
184	Identifying interactions in mixed and noisy complex systems. Physical Review E, 2006, 73, 051913.	0.8	40
185	Feature Extraction for Change-Point Detection Using Stationary Subspace Analysis. IEEE Transactions on Neural Networks and Learning Systems, 2012, 23, 631-643.	7.2	40
186	Finding brain oscillations with power dependencies in neuroimaging data. NeuroImage, 2014, 96, 334-348.	2.1	40
187	Autonomous robotic nanofabrication with reinforcement learning. Science Advances, 2020, 6, .	4.7	40
188	A Probabilistic Approach to Classifying Metabolic Stability. Journal of Chemical Information and Modeling, 2008, 48, 785-796.	2.5	39
189	A consistency-based model selection for one-class classification. , 2004, , .		38
190	Localizing and Estimating Causal Relations of Interacting Brain Rhythms. Frontiers in Human Neuroscience, 2010, 4, 209.	1.0	38
191	â„“1-penalized linear mixed-effects models for high dimensional data with application to BCI. NeuroImage, 2011, 56, 2100-2108.	2.1	38
192	Stereoscopic depth increases intersubject correlations of brain networks. NeuroImage, 2014, 100, 427-434.	2.1	38
193	Ensemble learning of coarse-grained molecular dynamics force fields with a kernel approach. Journal of Chemical Physics, 2020, 152, 194106.	1.2	38
194	Pyff â€“ A Pythonic Framework for Feedback Applications and Stimulus Presentation in Neuroscience. Frontiers in Neuroscience, 2010, 4, 179.	1.4	37
195	Single-trial analysis of the neural correlates of speech quality perception. Journal of Neural Engineering, 2013, 10, 056003.	1.8	36
196	A new blind source separation framework for signal analysis and artifact rejection in functional Near-Infrared Spectroscopy. NeuroImage, 2019, 200, 72-88.	2.1	36
197	Brain-Computer Interfaces [from the guest editors]. IEEE Signal Processing Magazine, 2008, 25, 16-17.	4.6	35
198	Analyzing Local Structure in Kernel-Based Learning: Explanation, Complexity, and Reliability Assessment. IEEE Signal Processing Magazine, 2013, 30, 62-74.	4.6	35

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199	Optimizing the regularization for image reconstruction of cerebral diffuse optical tomography. Journal of Biomedical Optics, 2014, 19, 096006.	1.4	35
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