

Noboru Murata

List of Publications by Year in descending order

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Version: 2024-02-01

118
papers

2,657
citations

394421

19
h-index

206112

48
g-index

121
all docs

121
docs citations

121
times ranked

2136
citing authors

#	ARTICLE	IF	CITATIONS
1	An approach to blind source separation based on temporal structure of speech signals. <i>Neurocomputing</i> , 2001, 41, 1-24.	5.9	502
2	Network information criterion-determining the number of hidden units for an artificial neural network model. <i>IEEE Transactions on Neural Networks</i> , 1994, 5, 865-872.	4.2	499
3	Asymptotic statistical theory of overtraining and cross-validation. <i>IEEE Transactions on Neural Networks</i> , 1997, 8, 985-996.	4.2	274
4	Neural network with unbounded activation functions is universal approximator. <i>Applied and Computational Harmonic Analysis</i> , 2017, 43, 233-268.	2.2	154
5	Information Geometry of U-Boost and Bregman Divergence. <i>Neural Computation</i> , 2004, 16, 1437-1481.	2.2	139
6	Statistical Theory of Learning Curves under Entropic Loss Criterion. <i>Neural Computation</i> , 1993, 5, 140-153.	2.2	113
7	A Versatile Clustering Method for Electricity Consumption Pattern Analysis in Households. <i>IEEE Transactions on Smart Grid</i> , 2013, 4, 1048-1057.	9.0	56
8	A robust approach to independent component analysis of signals with high-level noise measurements. <i>IEEE Transactions on Neural Networks</i> , 2003, 14, 631-645.	4.2	52
9	A Numerical Study on Learning Curves in Stochastic Multilayer Feedforward Networks. <i>Neural Computation</i> , 1996, 8, 1085-1106.	2.2	51
10	On-line learning in changing environments with applications in supervised and unsupervised learning. <i>Neural Networks</i> , 2002, 15, 743-760.	5.9	48
11	Distributed Energy Management for Comprehensive Utilization of Residential Photovoltaic Outputs. <i>IEEE Transactions on Smart Grid</i> , 2018, 9, 1216-1227.	9.0	44
12	Robust Loss Functions for Boosting. <i>Neural Computation</i> , 2007, 19, 2183-2244.	2.2	43
13	Independent component analysis for unaveraged single-trial MEG data decomposition and single-dipole source localization. <i>Neurocomputing</i> , 2002, 49, 255-277.	5.9	40
14	Gray-box modeling for prediction and control of molten steel temperature in tundish. <i>Journal of Process Control</i> , 2014, 24, 375-382.	3.3	40
15	An Integral Representation of Functions Using Three-layered Networks and Their Approximation Bounds. <i>Neural Networks</i> , 1996, 9, 947-956.	5.9	34
16	Multi-frame image super resolution based on sparse coding. <i>Neural Networks</i> , 2015, 66, 64-78.	5.9	34
17	Support vector machines with different norms: motivation, formulations and results. <i>Pattern Recognition Letters</i> , 2001, 22, 1263-1272.	4.2	33
18	Automation of Vulnerability Classification from its Description using Machine Learning. , 2020, , .		27

#	ARTICLE	IF	CITATIONS
19	Statistical analysis of learning dynamics. Signal Processing, 1999, 74, 3-28.	3.7	22
20	Sequential Extraction of Minor Components. Neural Processing Letters, 2001, 13, 195-201.	3.2	19
21	Robust Boosting Algorithm Against Mislabeling in Multiclass Problems. Neural Computation, 2008, 20, 1596-1630.	2.2	19
22	A Statistical Model for Predicting the Liquid Steel Temperature in Ladle and Tundish by Bootstrap Filter. ISIJ International, 2012, 52, 1086-1091.	1.4	19
23	Geometrical Properties of Nu Support Vector Machines with Different Norms. Neural Computation, 2005, 17, 2508-2529.	2.2	17
24	A Conditional Entropy Minimization Criterion for Dimensionality Reduction and Multiple Kernel Learning. Neural Computation, 2010, 22, 2887-2923.	2.2	17
25	Improving Generalization Performance of Natural Gradient Learning Using Optimized Regularization by NIC. Neural Computation, 2004, 16, 355-382.	2.2	16
26	Double sparsity for multi-frame super resolution. Neurocomputing, 2017, 240, 115-126.	5.9	16
27	Analytical estimation of the convergence point of populations. , 2015, , .		15
28	High-Performance Prediction of Molten Steel Temperature in Tundish through Gray-Box Model. ISIJ International, 2013, 53, 76-80.	1.4	14
29	Designing Comprehensive Cyber Threat Analysis Platform: Can We Orchestrate Analysis Engines?. , 2021, , .		14
30	The Most Robust Loss Function for Boosting. Lecture Notes in Computer Science, 2004, , 496-501.	1.3	13
31	Prediction of Molten Steel Temperature in Steel Making Process with Uncertainty by Integrating Gray-Box Model and Bootstrap Filter. Journal of Chemical Engineering of Japan, 2014, 47, 827-834.	0.6	13
32	A modified EM algorithm for mixture models based on Bregman divergence. Annals of the Institute of Statistical Mathematics, 2007, 59, 3-25.	0.8	12
33	A Statistical Study of On-line Learning. , 1999, , 63-92.		11
34	Information estimators for weighted observations. Neural Networks, 2013, 46, 260-275.	5.9	11
35	A Comparison of Optimal Operation of a Residential Fuel Cell Co-Generation System Using Clustered Demand Patterns Based on Kullback-Leibler Divergence. Energies, 2013, 6, 374-399.	3.1	9
36	Non-parametric entropy estimators based on simple linear regression. Computational Statistics and Data Analysis, 2015, 89, 72-84.	1.2	9

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37	Nonparametric α -Mixture Estimation. <i>Neural Computation</i> , 2016, 28, 2687-2725.	2.2	9
38	Statistical inference: learning in artificial neural networks. <i>Trends in Cognitive Sciences</i> , 1998, 2, 4-10.	7.8	8
39	Multiplicative nonholonomic/Newton-like algorithm. <i>Chaos, Solitons and Fractals</i> , 2001, 12, 785-793.	5.1	8
40	Optical detection of neuron connectivity by random access two-photon microscopy. <i>Journal of Neuroscience Methods</i> , 2016, 263, 48-56.	2.5	8
41	A Generalization of Independence in Naive Bayes Model. <i>Lecture Notes in Computer Science</i> , 2010, , 153-161.	1.3	8
42	mmp: A Package for Calculating Similarity and Distance Metrics for Simple and Marked Temporal Point Processes. <i>R Journal</i> , 2015, 7, 237.	1.8	7
43	Detecting cell assemblies by NMF-based clustering from calcium imaging data. <i>Neural Networks</i> , 2022, 149, 29-39.	5.9	7
44	Stochastic simulation of biological reactions, and its applications for studying actin polymerization. <i>Physical Biology</i> , 2010, 7, 046010.	1.8	6
45	Fast Multi-Objective Optimization of Magnetic Shield Shape by Combining Auto-Encoder and Level-Set Method. <i>IEEE Transactions on Magnetics</i> , 2021, 57, 1-5.	2.1	6
46	Time-Varying Transition Probability Matrix Estimation and Its Application to Brand Share Analysis. <i>PLoS ONE</i> , 2017, 12, e0169981.	2.5	6
47	Neuromagnetic responses to chords are modified by preceding musical scale. <i>Neuroscience Research</i> , 2008, 60, 50-55.	1.9	5
48	Multiple Kernel Learning by Conditional Entropy Minimization. , 2010, , .		5
49	Multiple Kernel Learning with Gaussianity Measures. <i>Neural Computation</i> , 2012, 24, 1853-1881.	2.2	5
50	A generalisation of independence in statistical models for categorical distribution. <i>International Journal of Data Mining, Modelling and Management</i> , 2012, 4, 172.	0.1	5
51	Entropy-based sliced inverse regression. <i>Computational Statistics and Data Analysis</i> , 2013, 67, 105-114.	1.2	5
52	Temporal Interpolation of Gridded Solar Radiation Data for Evaluation of PV Fluctuations. <i>Energy Procedia</i> , 2018, 155, 259-268.	1.8	5
53	Real-time botnet detection using nonnegative tucker decomposition. , 2019, , .		5
54	Self-Calibration of Radially Symmetric Distortion by Model Selection. , 2010, , .		4

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55	A Grouped Ranking Model for Item Preference Parameter. Neural Computation, 2010, 22, 2417-2451.	2.2	4
56	An Estimation of Generalized Bradley-Terry Models Based on the ϵ -Algorithm. Neural Computation, 2011, 23, 1623-1659.	2.2	4
57	Gray-Box Model to Control Molten Steel Temperature in Tundish. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 268-269.	0.4	4
58	Design of Inner and Outer Gray-Box Models to Predict Molten Steel Temperature in Tundish. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 744-749.	0.4	4
59	Intrinsic Graph Structure Estimation Using Graph Laplacian. Neural Computation, 2014, 26, 1455-1483.	2.2	4
60	EEG dipole source localization with information criteria for multiple particle filters. Neural Networks, 2018, 108, 68-82.	5.9	4
61	Information geometry of modal linear regression. Information Geometry, 2019, 2, 43-75.	1.2	4
62	Learning Ancestral Atom via Sparse Coding. IEEE Journal on Selected Topics in Signal Processing, 2013, 7, 586-594.	10.8	3
63	A Nonparametric Clustering Algorithm with a Quantile-Based Likelihood Estimator. Neural Computation, 2014, 26, 2074-2101.	2.2	3
64	Estimation of neural connections from partially observed neural spikes. Neural Networks, 2018, 108, 172-191.	5.9	3
65	Sleep State Analysis Using Calcium Imaging Data by Non-negative Matrix Factorization. Lecture Notes in Computer Science, 2019, , 102-113.	1.3	3
66	A Computationally Efficient Information Estimator for Weighted Data. Lecture Notes in Computer Science, 2011, , 301-308.	1.3	3
67	On a Convergence Property of a Geometrical Algorithm for Statistical Manifolds. Communications in Computer and Information Science, 2019, , 262-272.	0.5	3
68	Approximation bounds of three-layered neural networks—a theorem on an integral transform with ridge functions. Electronics and Communications in Japan, Part III: Fundamental Electronic Science (English Translation of Denshi Tsushin Gakkai Ronbunshi), 1996, 79, 23-33.	0.1	2
69	Statistical analysis of regularization constant λ From Bayes, MDL and NIC points of view. Lecture Notes in Computer Science, 1997, , 284-293.	1.3	2
70	Improved methods for dewarping images in convex mirrors in fine art: applications to van Eyck and Parmigianino. , 2011, , .		2
71	Speaker recognition using multiple kernel learning based on conditional entropy minimization. , 2011, , .		2
72	Sensitivity Analysis for Controlling Molten Steel Temperature in Tundish* *This study has been partially supported by the grant from ISIJ as an activity of research group, “High Precision Process Control via Large Scale Database and Simulation Models”. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 270-271.	0.4	2

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73	Change-Point Detection in a Sequence of Bags-of-Data. IEEE Transactions on Knowledge and Data Engineering, 2015, 27, 2632-2644.	5.7	2
74	Doubly sparse structure in image super resolution. , 2016, , .		2
75	Local Intrinsic Dimension Estimation by Generalized Linear Modeling. Neural Computation, 2017, 29, 1838-1878.	2.2	2
76	Information Geometric Perspective of Modal Linear Regression. Lecture Notes in Computer Science, 2018, , 535-545.	1.3	2
77	CAFM: A 3D Morphable Model for Animals. , 2020, , .		2
78	Item Preference Parameters from Grouped Ranking Observations. Lecture Notes in Computer Science, 2009, , 875-882.	1.3	2
79	An Information Theoretic Perspective of the Sparse Coding. Lecture Notes in Computer Science, 2009, , 84-93.	1.3	2
80	Geometrical Formulation of the Nonnegative Matrix Factorization. Lecture Notes in Computer Science, 2018, , 525-534.	1.3	2
81	Model Selection and Information Criterion. , 2009, , 333-354.		2
82	Topology optimization in magnetic shield design by using density method in combination with CNN. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2022, 41, 2109.	0.9	2
83	Part 6: Geometrical Structure of Boosting Algorithm. New Generation Computing, 2006, 25, 117-141.	3.3	1
84	Automatic extraction of basic electricity consumption patterns in household. , 2012, , .		1
85	Regions of Unusually High Flexibility Occur Frequently in Human Genomic DNA. Bioscience, Biotechnology and Biochemistry, 2013, 77, 612-617.	1.3	1
86	Reproducing Statistical Property of Short-term Fluctuation in Wind Power Profiles. Energy Procedia, 2016, 99, 130-136.	1.8	1
87	MDL Criterion for NMF with Application to Botnet Detection. Lecture Notes in Computer Science, 2016, , 570-578.	1.3	1
88	Application of Conditional Variational Auto-Encoder to Magnetic Circuit Design with Magnetic Field Computation. , 2019, , .		1
89	Development of Encoder-Decoder Predicting Search Process of Level-set Method in Magnetic Circuit Design. , 2019, , .		1
90	Fast and robust multiplane single-molecule localization microscopy using a deep neural network. Neurocomputing, 2021, 451, 279-289.	5.9	1

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91	Retrieved Image Refinement by Bootstrap Outlier Test. Lecture Notes in Computer Science, 2019, , 505-517.	1.3	1
92	Robust Estimation for Mixture of Probability Tables based on \hat{l}^2 -likelihood. , 2006, , .		1
93	Robust Hyperplane Fitting Based on k-th Power Deviation and \hat{l}_\pm -Quantile. Lecture Notes in Computer Science, 2011, , 278-285.	1.3	1
94	Robust Hypersurface Fitting Based on Random Sampling Approximations. Lecture Notes in Computer Science, 2012, , 520-527.	1.3	1
95	Non-parametric e-mixture of Density Functions. Lecture Notes in Computer Science, 2016, , 3-10.	1.3	1
96	An Entropy Estimator Based on Polynomial Regression with Poisson Error Structure. Lecture Notes in Computer Science, 2016, , 11-19.	1.3	1
97	Nonlinear PCA/ICA for the Structure from Motion Problem. Lecture Notes in Computer Science, 2004, , 750-757.	1.3	0
98	A Gaussian Process Robust Regression. Progress of Theoretical Physics Supplement, 2005, 157, 280-283.	0.1	0
99	Effects of Norms on Learning Properties of Support Vector Machines. , 0, , .		0
100	Estimation of a rotationally symmetric mirror shape from a frontal image of the mirror. , 2010, , .		0
101	Calibration of radially symmetric distortion based on linearity in the calibrated image. , 2011, , .		0
102	A Measure of Credibility of Solar Power Prediction. , 2011, , .		0
103	Extraction of Basic Patterns of Household Energy Consumption. , 2011, , .		0
104	A Tree Search Approach to Sparse Coding. Lecture Notes in Computer Science, 2012, , 472-477.	1.3	0
105	Change-point detection in a sequence of bags-of-data. , 2016, , .		0
106	Graph structure modeling for multi-neuronal spike data. Journal of Physics: Conference Series, 2016, 699, 012012.	0.4	0
107	Matrix Factorization for Image Processing. SpringerBriefs in Statistics, 2016, , 73-92.	0.4	0
108	Localizing Current Dipoles from EEG Data Using a Birth-Death Process. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
109	Design Optimization of Magnetic Material Distribution by Using Encoder-Decoder with Additive Mixing for Design Conditions. , 2019, , .		0
110	Single-molecule localization by voxel-wise regression using convolutional neural network. Results in Optics, 2020, 1, 100019.	2.0	0
111	Nonnegative Matrix Factorization via Generalized Product Rule and Its Application for Classification. Lecture Notes in Computer Science, 2012, , 263-271.	1.3	0
112	Pairwise Similarity for Line Extraction from Distorted Images. Lecture Notes in Computer Science, 2013, , 250-257.	1.3	0
113	Sampling Hidden Parameters from Oracle Distribution. Lecture Notes in Computer Science, 2014, , 539-546.	1.3	0
114	An Algorithm for Directed Graph Estimation. Lecture Notes in Computer Science, 2014, , 145-152.	1.3	0
115	ICOPE-15-1025 Effects of a MIP start for solving weekly operational planning problem of a residential energy system. The Proceedings of the International Conference on Power Engineering (ICOPE), 2015, 2015.12, _ICOPE-15--_ICOPE-15-.	0.0	0
116	Patchworking Multiple Pairwise Distances for Learning with Distance Matrices. Lecture Notes in Computer Science, 2015, , 287-294.	1.3	0
117	Learning Scale and Shift-Invariant Dictionary for Sparse Representation. Lecture Notes in Computer Science, 2019, , 472-483.	1.3	0
118	Multi-label Positive and Unlabeled Learning and its Application to Common Vulnerabilities and Exposure Categorization. , 2021, , .		0