Noboru Murata

List of Publications by Year
in descending order

118 papers	2,657 citations	394286 19 h-index	206029 48 g-index
121 all docs	121 docs citations	121 times ranked	2136 citing authors

#	Article	IF	Citations
1	Detecting cell assemblies by NMF-based clustering from calcium imaging data. Neural Networks, 2022, 149, 29-39.	3.3	7
2	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.	0.5	2
3	Designing Comprehensive Cyber Threat Analysis Platform: Can We Orchestrate Analysis Engines?. , 2021, , .		14
4	Fast Multi-Objective Optimization of Magnetic Shield Shape by Combining Auto-Encoder and Level-Set Method. IEEE Transactions on Magnetics, 2021, 57, 1-5.	1.2	6
5	Fast and robust multiplane single-molecule localization microscopy using a deep neural network. Neurocomputing, 2021, 451, 279-289.	3.5	1
6	Multi-label Positive and Unlabeled Learning and its Application to Common Vulnerabilities and Exposure Categorization. , 2021, , .		0
7	Automation of Vulnerability Classification from its Description using Machine Learning. , 2020, , .		27
8	CAFM: A 3D Morphable Model for Animals. , 2020, , .		2
9	Single-molecule localization by voxel-wise regression using convolutional neural network. Results in Optics, 2020, 1, 100019.	0.9	0
10	Information geometry of modal linear regression. Information Geometry, 2019, 2, 43-75.	0.8	4
11	Design Optimization of Magnetic Material Distribution by Using Encoder-Decoder with Additive Mixing for Design Conditions. , 2019, , .		0
12	Application of Conditional Variational Auto-Encoder to Magnetic Circuit Design with Magnetic Field Computation. , 2019, , .		1
13	Development of Encoder-Decoder Predicting Search Process of Level-set Method in Magnetic Circuit Design. , 2019, , .		1
14	Retrieved Image Refinement by Bootstrap Outlier Test. Lecture Notes in Computer Science, 2019, , 505-517.	1.0	1
15	Sleep State Analysis Using Calcium Imaging Data by Non-negative Matrix Factorization. Lecture Notes in Computer Science, 2019, , 102-113.	1.0	3
16	Real-time botnet detection using nonnegative tucker decomposition. , 2019, , .		5
17	Learning Scale and Shift-Invariant Dictionary for Sparse Representation. Lecture Notes in Computer Science, 2019, , 472-483.	1.0	0
18	On a Convergence Property of a Geometrical Algorithm for Statistical Manifolds. Communications in Computer and Information Science, 2019, , 262-272.	0.4	3

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19	Distributed Energy Management for Comprehensive Utilization of Residential Photovoltaic Outputs. IEEE Transactions on Smart Grid, 2018, 9, 1216-1227.	6.2	44
20	Localizing Current Dipoles from EEG Data Using a Birth–Death Process. , 2018, , .		0
21	Temporal Interpolation of Gridded Solar Radiation Data for Evaluation of PV Fluctuations. Energy Procedia, 2018, 155, 259-268.	1.8	5
22	Information Geometric Perspective of Modal Linear Regression. Lecture Notes in Computer Science, 2018, , 535-545.	1.0	2
23	Estimation of neural connections from partially observed neural spikes. Neural Networks, 2018, 108, 172-191.	3.3	3
24	EEG dipole source localization with information criteria for multiple particle filters. Neural Networks, 2018, 108, 68-82.	3.3	4
25	Geometrical Formulation of the Nonnegative Matrix Factorization. Lecture Notes in Computer Science, 2018, , 525-534.	1.0	2
26	Neural network with unbounded activation functions is universal approximator. Applied and Computational Harmonic Analysis, 2017, 43, 233-268.	1.1	154
27	Double sparsity for multi-frame super resolution. Neurocomputing, 2017, 240, 115-126.	3.5	16
28	Local Intrinsic Dimension Estimation by Generalized Linear Modeling. Neural Computation, 2017, 29, 1838-1878.	1.3	2
29	Time-Varying Transition Probability Matrix Estimation and Its Application to Brand Share Analysis. PLoS ONE, 2017, 12, e0169981.	1.1	6
30	Change-point detection in a sequence of bags-of-data. , 2016, , .		0
31	Reproducing Statistical Property of Short-term Fluctuation in Wind Power Profiles. Energy Procedia, 2016, 99, 130-136.	1.8	1
32	MDL Criterion for NMF with Application to Botnet Detection. Lecture Notes in Computer Science, 2016, , 570-578.	1.0	1
33	Nonparametric e-Mixture Estimation. Neural Computation, 2016, 28, 2687-2725.	1.3	9
34	Doubly sparse structure in image super resolution. , 2016, , .		2
35	Graph structure modeling for multi-neuronal spike data. Journal of Physics: Conference Series, 2016, 699, 012012.	0.3	0
36	Optical detection of neuron connectivity by random access two-photon microscopy. Journal of Neuroscience Methods, 2016, 263, 48-56.	1.3	8

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37	Matrix Factorization for Image Processing. SpringerBriefs in Statistics, 2016, , 73-92.	0.3	0
38	Non-parametric e-mixture of Density Functions. Lecture Notes in Computer Science, 2016, , 3-10.	1.0	1
39	An Entropy Estimator Based on Polynomial Regression with Poisson Error Structure. Lecture Notes in Computer Science, 2016, , 11-19.	1.0	1
40	Analytical estimation of the convergence point of populations. , 2015, , .		15
41	Non-parametric entropy estimators based on simple linear regression. Computational Statistics and Data Analysis, 2015, 89, 72-84.	0.7	9
42	Multi-frame image super resolution based on sparse coding. Neural Networks, 2015, 66, 64-78.	3.3	34
43	Change-Point Detection in a Sequence of Bags-of-Data. IEEE Transactions on Knowledge and Data Engineering, 2015, 27, 2632-2644.	4.0	2
44	mmpp: A Package for Calculating Similarity and Distance Metrics for Simple and Marked Temporal Point Processes. R Journal, 2015, 7, 237.	0.7	7
45	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
46	Patchworking Multiple Pairwise Distances for Learning with Distance Matrices. Lecture Notes in Computer Science, 2015, , 287-294.	1.0	0
47	Intrinsic Graph Structure Estimation Using Graph Laplacian. Neural Computation, 2014, 26, 1455-1483.	1.3	4
48	Gray-box modeling for prediction and control of molten steel temperature in tundish. Journal of Process Control, 2014, 24, 375-382.	1.7	40
49	A Nonparametric Clustering Algorithm with a Quantile-Based Likelihood Estimator. Neural Computation, 2014, 26, 2074-2101.	1.3	3
50	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.	0.3	13
51	Sampling Hidden Parameters from Oracle Distribution. Lecture Notes in Computer Science, 2014, , 539-546.	1.0	0
52	An Algorithm for Directed Graph Estimation. Lecture Notes in Computer Science, 2014, , 145-152.	1.0	0
53	A Versatile Clustering Method for Electricity Consumption Pattern Analysis in Households. IEEE Transactions on Smart Grid, 2013, 4, 1048-1057.	6.2	56
54	Information estimators for weighted observations. Neural Networks, 2013, 46, 260-275.	3.3	11

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55	Entropy-based sliced inverse regression. Computational Statistics and Data Analysis, 2013, 67, 105-114.	0.7	5
56	Learning Ancestral Atom via Sparse Coding. IEEE Journal on Selected Topics in Signal Processing, 2013, 7, 586-594.	7.3	3
57	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.	1.6	9
58	Regions of Unusually High Flexibility Occur Frequently in Human Genomic DNA. Bioscience, Biotechnology and Biochemistry, 2013, 77, 612-617.	0.6	1
59	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
60	High-Performance Prediction of Molten Steel Temperature in Tundish through Gray-Box Model. ISIJ International, 2013, 53, 76-80.	0.6	14
61	Pairwise Similarity for Line Extraction from Distorted Images. Lecture Notes in Computer Science, 2013, , 250-257.	1.0	0
62	A Tree Search Approach to Sparse Coding. Lecture Notes in Computer Science, 2012, , 472-477.	1.0	0
63	Multiple Kernel Learning with Gaussianity Measures. Neural Computation, 2012, 24, 1853-1881.	1.3	5
64	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, â€œHigh 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
65	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
66	A generalisation of independence in statistical models for categorical distribution. International Journal of Data Mining, Modelling and Management, 2012, 4, 172.	0.1	5
67	Automatic extraction of basic electricity consumption patterns in household. , 2012, , .		1
68	A Statistical Model for Predicting the Liquid Steel Temperature in Ladle and Tundish by Bootstrap Filter. ISIJ International, 2012, 52, 1086-1091.	0.6	19
69	Nonnegative Matrix Factorization via Generalized Product Rule and Its Application for Classification. Lecture Notes in Computer Science, 2012, , 263-271.	1.0	0
70	Robust Hypersurface Fitting Based on Random Sampling Approximations. Lecture Notes in Computer Science, 2012, , 520-527.	1.0	1
71	Calibration of radially symmetric distortion based on linearity in the calibrated image. , 2011, , .		0
72	An Estimation of Generalized Bradley-Terry Models Based on the <i>em</i> Algorithm. Neural Computation, 2011, 23, 1623-1659.	1.3	4

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73	A Measure of Credibility of Solar Power Prediction. , 2011, , .		0
74	Extraction of Basic Patterns of Household Energy Consumption. , 2011, , .		0
75	Improved methods for dewarping images in convex mirrors in fine art: applications to van Eyck and Parmigianino. , 2011, , .		2
76	Speaker recognition using multiple kernel learning based on conditional entropy minimization. , 2011, , .		2
77	A Computationally Efficient Information Estimator for Weighted Data. Lecture Notes in Computer Science, 2011, , 301-308.	1.0	3
78	Robust Hyperplane Fitting Based on k-th Power Deviation and α-Quantile. Lecture Notes in Computer Science, 2011, , 278-285.	1.0	1
79	Stochastic simulation of biological reactions, and its applications for studying actin polymerization. Physical Biology, 2010, 7, 046010.	0.8	6
80	Self-Calibration of Radially Symmetric Distortion by Model Selection. , 2010, , .		4
81	A Grouped Ranking Model for Item Preference Parameter. Neural Computation, 2010, 22, 2417-2451.	1.3	4
82	A Conditional Entropy Minimization Criterion for Dimensionality Reduction and Multiple Kernel Learning. Neural Computation, 2010, 22, 2887-2923.	1.3	17
83	Multiple Kernel Learning by Conditional Entropy Minimization. , 2010, , .		5
84	Estimation of a rotationally symmetric mirror shape from a frontal image of the mirror. , 2010, , .		0
85	A Generalization of Independence in Naive Bayes Model. Lecture Notes in Computer Science, 2010, , 153-161.	1.0	8
86	Item Preference Parameters from Grouped Ranking Observations. Lecture Notes in Computer Science, 2009, , 875-882.	1.0	2
87	An Information Theoretic Perspective of the Sparse Coding. Lecture Notes in Computer Science, 2009, , 84-93.	1.0	2
88	Model Selection and Information Criterion. , 2009, , 333-354.		2
89	Neuromagnetic responses to chords are modified by preceding musical scale. Neuroscience Research, 2008, 60, 50-55.	1.0	5
90	Robust Boosting Algorithm Against Mislabeling in Multiclass Problems. Neural Computation, 2008, 20, 1596-1630.	1.3	19

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91	Robust Loss Functions for Boosting. Neural Computation, 2007, 19, 2183-2244.	1.3	43
92	A modified EM algorithm for mixture models based on Bregman divergence. Annals of the Institute of Statistical Mathematics, 2007, 59, 3-25.	0.5	12
93	Part 6: Geometrical Structure of Boosting Algorithm. New Generation Computing, 2006, 25, 117-141.	2.5	1
94	Robust Estimation for Mixture of Probability Tables based on Î²-likelihood. , 2006, , .		1
95	Geometrical Properties of Nu Support Vector Machines with Different Norms. Neural Computation, 2005, 17, 2508-2529.	1.3	17
96	A Gaussian Process Robust Regression. Progress of Theoretical Physics Supplement, 2005, 157, 280-283.	0.2	0
97	Nonlinear PCA/ICA for the Structure from Motion Problem. Lecture Notes in Computer Science, 2004, , 750-757.	1.0	0
98	The Most Robust Loss Function for Boosting. Lecture Notes in Computer Science, 2004, , 496-501.	1.0	13
99	Improving Generalization Performance of Natural Gradient Learning Using Optimized Regularization by NIC. Neural Computation, 2004, 16, 355-382.	1.3	16
100	Information Geometry of U-Boost and Bregman Divergence. Neural Computation, 2004, 16, 1437-1481.	1.3	139
101	A robust approach to independent component analysis of signals with high-level noise measurements. IEEE Transactions on Neural Networks, 2003, 14, 631-645.	4.8	52
102	Independent component analysis for unaveraged single-trial MEG data decomposition and single-dipole source localization. Neurocomputing, 2002, 49, 255-277.	3.5	40
103	On-line learning in changing environments with applications in supervised and unsupervised learning. Neural Networks, 2002, 15, 743-760.	3.3	48
104	Support vector machines with different norms: motivation, formulations and results. Pattern Recognition Letters, 2001, 22, 1263-1272.	2.6	33
105	Multiplicative nonholonomic/Newton-like algorithm. Chaos, Solitons and Fractals, 2001, 12, 785-793.	2.5	8
106	Sequential Extraction of Minor Components. Neural Processing Letters, 2001, 13, 195-201.	2.0	19
107	An approach to blind source separation based on temporal structure of speech signals. Neurocomputing, 2001, 41, 1-24.	3.5	502
108	A Statistical Study of On-line Learning. , 1999, , 63-92.		11

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109	Statistical analysis of learning dynamics. Signal Processing, 1999, 74, 3-28.	2.1	22
110	Statistical inference: learning in artificial neural networks. Trends in Cognitive Sciences, 1998, 2, 4-10.	4.0	8
111	Statistical analysis of regularization constant â€" From Bayes, MDL and NIC points of view. Lecture Notes in Computer Science, 1997, , 284-293.	1.0	2
112	Asymptotic statistical theory of overtraining and cross-validation. IEEE Transactions on Neural Networks, 1997, 8, 985-996.	4.8	274
113	An Integral Representation of Functions Using Three-layered Networks and Their Approximation Bounds. Neural Networks, 1996, 9, 947-956.	3.3	34
114	Approximation bounds of three-layered neural networksâ€"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
115	A Numerical Study on Learning Curves in Stochastic Multilayer Feedforward Networks. Neural Computation, 1996, 8, 1085-1106.	1.3	51
116	Network information criterion-determining the number of hidden units for an artificial neural network model. IEEE Transactions on Neural Networks, 1994, 5, 865-872.	4.8	499
117	Statistical Theory of Learning Curves under Entropic Loss Criterion. Neural Computation, 1993, 5, 140-153.	1.3	113
118	Effects of Norms on Learning Properties of Support Vector Machines. , 0, , .		0