RafaÅ, Zdunek

List of Publications by Year
in descending order

77 papers	2,848 citations	393982 19 h-index	301761 39 g-index
95 all docs	95 docs citations	95 times ranked	2270 citing authors

#	Article	IF	Citations
1	Symmetric Nonnegative Matrix Factorization: Algorithms and Applications to Probabilistic Clustering. IEEE Transactions on Neural Networks, 2011, 22, 2117-2131.	4.8	202
2	Hierarchical ALS Algorithms for Nonnegative Matrix and 3D Tensor Factorization. , 2007, , 169-176.		180
3	Nonnegative Matrix and Tensor Factorization [Lecture Notes]. IEEE Signal Processing Magazine, 2008, 25, 142-145.	4.6	118
4	Multilayer nonnegative matrix factorisation. Electronics Letters, 2006, 42, 947.	0.5	107
5	Smooth nonnegative matrix and tensor factorizations for robust multi-way data analysis. Signal Processing, 2015, 113, 234-249.	2.1	87
6	Nonnegative matrix factorization with constrained second-order optimization. Signal Processing, 2007, 87, 1904-1916.	2.1	83
7	MULTILAYER NONNEGATIVE MATRIX FACTORIZATION USING PROJECTED GRADIENT APPROACHES. International Journal of Neural Systems, 2007, 17, 431-446.	3.2	75
8	Kaczmarz extended algorithm for tomographic image reconstruction from limited-data. Mathematics and Computers in Simulation, 2004, 65, 579-598.	2.4	74
9	Extended SMART Algorithms for Non-negative Matrix Factorization. Lecture Notes in Computer Science, 2006, , 548-562.	1.0	56
10	Improved M-FOCUSS Algorithm With Overlapping Blocks for Locally Smooth Sparse Signals. IEEE Transactions on Signal Processing, 2008, 56, 4752-4761.	3.2	53
11	Non-Negative Tensor Factorization using Alpha and Beta Divergences. , 2007, , .		46
12	Improved FOCUSS Method With Conjugate Gradient Iterations. IEEE Transactions on Signal Processing, 2009, 57, 399-404.	3.2	42
13	Fast Nonnegative Matrix Factorization Algorithms Using Projected Gradient Approaches for Large-Scale Problems. Computational Intelligence and Neuroscience, 2008, 2008, 1-13.	1.1	40
14	Regularized Alternating Least Squares Algorithms for Non-negative Matrix/Tensor Factorization. Lecture Notes in Computer Science, 2007, , 793-802.	1.0	39
15	Electromyography and mechanomyography signal recognition: Experimental analysis using multi-way array decomposition methods. Biocybernetics and Biomedical Engineering, 2017, 37, 103-113.	3.3	34
16	Nonnegative matrix factorization with quadratic programming. Neurocomputing, 2008, 71, 2309-2320.	3.5	32
17	Multichannel EEG brain activity pattern analysis in time–frequency domain with nonnegative matrix factorization support. International Congress Series, 2007, 1301, 266-269.	0.2	29
18	Novel Multi-layer Non-negative Tensor Factorization with Sparsity Constraints. Lecture Notes in Computer Science, 2007, , 271-280.	1.0	23

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19	Advances in Nonnegative Matrix and Tensor Factorization. Computational Intelligence and Neuroscience, 2008, 2008, 1-3.	1.1	19
20	Electromagnetic geotomography-selection of measuring frequency. IEEE Sensors Journal, 2005, 5, 242-250.	2.4	18
21	Flexible Component Analysis for Sparse, Smooth, Nonnegative Coding or Representation. Lecture Notes in Computer Science, 2007, , 811-820.	1.0	17
22	Initialization of Nonnegative Matrix Factorization with Vertices of Convex Polytope. Lecture Notes in Computer Science, 2012, , 448-455.	1.0	12
23	Blind Image Separation Using Nonnegative Matrix Factorization with Gibbs Smoothing. Lecture Notes in Computer Science, 2007, , 519-528.	1.0	11
24	Regularized nonnegative matrix factorization: Geometrical interpretation and application to spectral unmixing. International Journal of Applied Mathematics and Computer Science, 2014, 24, 233-247.	1.5	10
25	From basis components to complex structural patterns. , 2013, , .		9
26	Segmented convex-hull algorithms for near-separable NMF and NTF. Neurocomputing, 2019, 331, 150-164.	3.5	9
27	Improved Convolutive and Under-Determined Blind Audio Source Separation with MRF Smoothing. Cognitive Computation, 2013, 5, 493-503.	3.6	8
28	Recognition of Pharmacological Bi-Heterocyclic Compounds by Using Terahertz Time Domain Spectroscopy and Chemometrics. Sensors, 2019, 19, 3349.	2.1	8
29	Data Clustering with Semi-binary Nonnegative Matrix Factorization. Lecture Notes in Computer Science, 2008, , 705-716.	1.0	8
30	CG-M-FOCUSS and Its Application to Distributed Compressed Sensing. Lecture Notes in Computer Science, 2008, , 237-245.	1.0	8
31	Distributed Nonnegative Matrix Factorization with HALS Algorithm on MapReduce. Lecture Notes in Computer Science, 2017, , 211-222.	1.0	7
32	Nonnegative factorization of spectrogram for local damage detection of belt conveyor gearboxes. IFAC-PapersOnLine, 2017, 50, 4714-4718.	0.5	7
33	Fast Recursive Nonnegative Standard and Hierarchical Tucker Decomposition. IEEE Signal Processing Letters, 2019, 26, 1265-1269.	2.1	7
34	Distributed and Randomized Tensor Train Decomposition for Feature Extraction. , 2019, , .		7
35	Alternating direction method for approximating smooth feature vectors in Nonnegative Matrix Factorization. , 2014, , .		6
36	Linked CP tensor decomposition algorithms for shared and individual feature extraction. Signal Processing: Image Communication, 2019, 73, 37-52.	1.8	6

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37	UMTS Base Station Location Planning with Invasive Weed Optimization. Lecture Notes in Computer Science, 2010, , 698-705.	1.0	6
38	Approximation of Feature Vectors in Nonnegative Matrix Factorization with Gaussian Radial Basis Functions. Lecture Notes in Computer Science, 2012, , 616-623.	1.0	6
39	Image Classification with Nonnegative Matrix Factorization Based on Spectral Projected Gradient. Springer Series in Bio-/neuroinformatics, 2015, , 31-50.	0.1	5
40	Distributed geometric nonnegative matrix factorization and hierarchical alternating least squares–based nonnegative tensor factorization with the MapReduce paradigm. Concurrency Computation Practice and Experience, 2018, 30, e4473.	1.4	5
41	Image Completion with Hybrid Interpolation in Tensor Representation. Applied Sciences (Switzerland), 2020, 10, 797.	1.3	5
42	Fast hierarchical tucker decomposition with single-mode preservation and tensor subspace analysis for feature extraction from augmented multimodal data. Neurocomputing, 2021, 445, 231-243.	3.5	5
43	B-Spline Smoothing of Feature Vectors in Nonnegative Matrix Factorization. Lecture Notes in Computer Science, 2014, , 72-81.	1.0	5
44	Incremental Nonnegative Tucker Decomposition with Block-Coordinate Descent and Recursive Approaches. Symmetry, 2022, 14, 113.	1.1	5
45	Regularized Active Set Least Squares Algorithm for Nonnegative Matrix Factorization in Application to Raman Spectra Separation. Lecture Notes in Computer Science, 2011, , 492-499.	1.0	4
46	Unsupervised verification of laser-induced breakdown spectroscopy dataset clustering. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2016, 126, 84-92.	1.5	4
47	Randomized Nonnegative Tensor Factorization for Feature Extraction from High-dimensional Signals. , 2018, , .		4
48	Sparse Super Symmetric Tensor Factorization. Lecture Notes in Computer Science, 2007, , 781-790.	1.0	4
49	Regularized NNLS Algorithms for Nonnegative Matrix Factorization with Application to Text Document Clustering. Advances in Intelligent and Soft Computing, 2011, , 757-766.	0.2	4
50	On–Off Scheduling for Electric Vehicle Charging in Two-Links Charging Stations Using Binary Optimization Approaches. Sensors, 2021, 21, 7149.	2.1	4
51	Detection of Subsurface Bubbles with Discrete Electromagnetic Geotomography. Electronic Notes in Discrete Mathematics, 2005, 20, 535-553.	0.4	3
52	Tomographic image reconstruction from limited-view projections with Wiener filtered focuss algorithm. , 2008, , .		3
53	Classification of Copper Minerals by Handheld Laser-Induced Breakdown Spectroscopy and Nonnegative Tensor Factorisation. Sensors, 2020, 20, 5152.	2.1	3
54	Modified HALS Algorithm for Image Completion and Recommendation System. Advances in Intelligent Systems and Computing, 2018, , 17-27.	0.5	3

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55	Image Completion with Smooth Nonnegative Matrix Factorization. Lecture Notes in Computer Science, 2018, , 62-72.	1.0	3
56	Improved Modeling of Highly Loaded UMTS Network with Nonnegative Constraints. , 2006, , .		2
57	On image reconstruction algorithms for binary electromagnetic geotomography. Theoretical Computer Science, 2008, 406, 160-170.	0.5	2
58	Hyperspectral image unmixing with Nonnegative Matrix Factorization. , 2012, , .		2
59	Spectral Signal Unmixing with Interior-Point Nonnegative Matrix Factorization. Lecture Notes in Computer Science, 2012, , 65-72.	1.0	2
60	Trust-Region Algorithm for Nonnegative Matrix Factorization with Alpha- and Beta-divergences. Lecture Notes in Computer Science, 2012, , 226-235.	1.0	2
61	Distributed Nonnegative Matrix Factorization with HALS Algorithm on Apache Spark. Lecture Notes in Computer Science, 2018, , 333-342.	1.0	2
62	Image completion with approximate convex hull tensor decomposition. Signal Processing: Image Communication, 2021, 95, 116276.	1.8	2
63	Image Completion with Nonnegative Matrix Factorization Under Separability Assumption. Lecture Notes in Computer Science, 2018, , 116-126.	1.0	2
64	GNMF with Newton-Based Methods. Lecture Notes in Computer Science, 2013, , 90-97.	1.0	2
65	Nesterovâ€™s Iterations for NMF-Based Supervised Classification of Texture Patterns. Lecture Notes in Computer Science, 2012, , 478-485.	1.0	2
66	Automatic tuning of hyperparameters for NMF-based face recognition system. , 2016, , .		1
67	Feature-Fusion HALS-based Algorithm for Linked CP Decomposition Model in Application to Joint EMG/MMG Signal Classification. , 2018, , .		1
68	Image Completion with Filtered Alternating Least Squares Tucker Decomposition. , 2019, , .		1
69	Sequential Coordinate-Wise DNMF for Face Recognition. Lecture Notes in Computer Science, 2010, , 563-570.	1.0	1
70	Uni-orthogonal Nonnegative Tucker Decomposition for Supervised Image Classification. Lecture Notes in Computer Science, 2011, , 88-97.	1.0	1
71	Extraction of Dynamic Nonnegative Features from Multidimensional Nonstationary Signals. Lecture Notes in Computer Science, 2016, , 557-566.	1.0	1
72	Trust-Region Strategy with Cauchy Point for Nonnegative Tensor Factorization with Beta-Divergence. Smart Innovation, Systems and Technologies, 2020, , 315-325.	0.5	1

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73	\<title\>Use of computed tomography methods for investigating electromagnetic wave attenuation distribution in the Earth\</title\>. , 2001, , .		0
74	Erratum for â€˜Multilayer nonnegative matrix factorisationâ€™. Electronics Letters, 2007, 43, 425.	0.5	0
75	Nonnegative Tensor Factorization with Smoothness Constraints. Lecture Notes in Computer Science, 2008, , 300-307.	1.0	0
76	Projected Gradient Algorithms. , 0, , 267-294.		0
77	XRAY Algorithm for Separable Nonnegative Tensor Factorization. Lecture Notes in Computer Science, 2017, , 246-256.	1.0	0