De-Yu Meng

List of Publications by Year
in descending order

148 papers	14,015 citations	87723 38 h-index	29081 104 g-index
149 all docs	149 docs citations	149 times ranked	9467 citing authors

#	Article	IF	Citations
1	Beyond a Gaussian Denoiser: Residual Learning of Deep CNN for Image Denoising. IEEE Transactions on Image Processing, 2017, 26, 3142-3155.	6.0	4,738
2	Infrared Patch-Image Model for Small Target Detection in a Single Image. IEEE Transactions on Image Processing, 2013, 22, 4996-5009.	6.0	658
3	Weighted Nuclear Norm Minimization and Its Applications to Low Level Vision. International Journal of Computer Vision, 2017, 121, 183-208.	10.9	566
4	Progressive Image Deraining Networks: A Better and Simpler Baseline. , 2019, , .		470
5	Co-Saliency Detection via a Self-Paced Multiple-Instance Learning Framework. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2017, 39, 865-878.	9.7	441
6	Hyperspectral Image Restoration Via Total Variation Regularized Low-Rank Tensor Decomposition. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 1227-1243.	2.3	276
7	Hyperspectral Image Classification With Markov Random Fields and a Convolutional Neural Network. IEEE Transactions on Image Processing, 2018, 27, 2354-2367.	6.0	252
8	Robust Multi-Exposure Image Fusion: A Structural Patch Decomposition Approach. IEEE Transactions on Image Processing, 2017, 26, 2519-2532.	6.0	250
9	Semi-Supervised Transfer Learning for Image Rain Removal. , 2019, , .		243
10	Decomposable Nonlocal Tensor Dictionary Learning for Multispectral Image Denoising. , 2014, , .		237
11	Convolutional Sparse Coding for Image Super-Resolution. , 2015, , .		225
12	Hyperspectral Image Classification With Convolutional Neural Network and Active Learning. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 4604-4616.	2.7	214
13	Kronecker-Basis-Representation Based Tensor Sparsity and Its Applications to Tensor Recovery. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 1888-1902.	9.7	191
14	A Model-Driven Deep Neural Network for Single Image Rain Removal. , 2020, , .		187
15	Easy Samples First. , 2014, , .		173
16	Multispectral and Hyperspectral Image Fusion by MS/HS Fusion Net. , 2019, , .		172
17	Multispectral Images Denoising by Intrinsic Tensor Sparsity Regularization. , 2016, , .		166
18	Robust Low-Rank Matrix Factorization Under General Mixture Noise Distributions. IEEE Transactions on Image Processing, 2016, 25, 4677-4690.	6.0	145

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19	Infrared small-dim target detection based on Markov random field guided noise modeling. Pattern Recognition, 2018, 76, 463-475.	5.1	143
20	Joint Convolutional Analysis and Synthesis Sparse Representation for Single Image Layer Separation. , 2017, , .		141
21	Robust Matrix Factorization with Unknown Noise. , 2013, , .		137
22	Total Variation Regularized Tensor RPCA for Background Subtraction From Compressive Measurements. IEEE Transactions on Image Processing, 2016, 25, 4075-4090.	6.0	135
23	Denoising Hyperspectral Image With Non-i.i.d. Noise Structure. IEEE Transactions on Cybernetics, 2018, 48, 1054-1066.	6.2	134
24	Video Rain Streak Removal by Multiscale Convolutional Sparse Coding. , 2018, , .		128
25	Robust Online Matrix Factorization for Dynamic Background Subtraction. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 1726-1740.	9.7	117
26	Nonconvex-Sparsity and Nonlocal-Smoothness-Based Blind Hyperspectral Unmixing. IEEE Transactions on Image Processing, 2019, 28, 2991-3006.	6.0	117
27	Improve robustness of sparse PCA by L1-norm maximization. Pattern Recognition, 2012, 45, 487-497.	5.1	115
28	Leveraging Prior-Knowledge for Weakly Supervised Object Detection Under a Collaborative Self-Paced Curriculum Learning Framework. International Journal of Computer Vision, 2019, 127, 363-380.	10.9	114
29	Active Self-Paced Learning for Cost-Effective and Progressive Face Identification. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2018, 40, 7-19.	9.7	110
30	Few-Example Object Detection with Model Communication. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2019, 41, 1641-1654.	9.7	104
31	Should We Encode Rain Streaks in Video as Deterministic or Stochastic?. , 2017, , .		103
32	MHF-Net: An Interpretable Deep Network for Multispectral and Hyperspectral Image Fusion. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 1457-1473.	9.7	95
33	Dual Adversarial Network: Toward Real-World Noise Removal and Noise Generation. Lecture Notes in Computer Science, 2020, , 41-58.	1.0	90
34	A Self-Paced Multiple-Instance Learning Framework for Co-Saliency Detection. , 2015, , .		89
35	A theoretical understanding of self-paced learning. Information Sciences, 2017, 414, 319-328.	4.0	87
36	Integration of 3-dimensional discrete wavelet transform and Markov random field for hyperspectral image classification. Neurocomputing, 2017, 226, 90-100.	3.5	87

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37	<inline-formula> <tex-math notation="LaTeX">L_{1} </tex-math></inline-formula>-Norm Low-Rank Matrix Factorization by Variational Bayesian Method. IEEE Transactions on Neural Networks and Learning Systems, 2015, 26, 825-839.	7.2	82
38	Cross-Attention in Coupled Unmixing Nets for Unsupervised Hyperspectral Super-Resolution. Lecture Notes in Computer Science, 2020, , 208-224.	1.0	79
39	Multimodal GANs: Toward Crossmodal Hyperspectralâ€"Multispectral Image Segmentation. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 5103-5113.	2.7	71
40	Fast and Efficient Strategies for Model Selection of Gaussian Support Vector Machine. IEEE Transactions on Systems, Man, and Cybernetics, 2009, 39, 1292-1307.	5.5	70
41	Enhanced 3DTV Regularization and Its Applications on HSI Denoising and Compressed Sensing. IEEE Transactions on Image Processing, 2020, 29, 7889-7903.	6.0	69
42	TSASNet: Tooth segmentation on dental panoramic X-ray images by Two-Stage Attention Segmentation Network. Knowledge-Based Systems, 2020, 206, 106338.	4.0	66
43	Single Image Deraining Using Bilateral Recurrent Network. IEEE Transactions on Image Processing, 2020, 29, 6852-6863.	6.0	65
44	Low-Rank Matrix Factorization under General Mixture Noise Distributions. , 2015, , .		59
45	Compressive Sensing of Hyperspectral Images via Joint Tensor Tucker Decomposition and Weighted Total Variation Regularization. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 2457-2461.	1.4	59
46	InfAR dataset: Infrared action recognition at different times. Neurocomputing, 2016, 212, 36-47.	3.5	58
47	Deep self-paced learning for person re-identification. Pattern Recognition, 2018, 76, 739-751.	5.1	57
48	Deep Spatial-Spectral Global Reasoning Network for Hyperspectral Image Denoising. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	2.7	49
49	Discriminative Feature Learning With Foreground Attention for Person Re-Identification. IEEE Transactions on Image Processing, 2019, 28, 4671-4684.	6.0	48
50	From Rain Generation to Rain Removal. , 2021, , .		47
51	Spatial and Temporal Image Fusion via Regularized Spatial Unmixing. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 1362-1366.	1.4	45
52	Robust Low-Dose CT Sinogram Preprocessing via Exploiting Noise-Generating Mechanism. IEEE Transactions on Medical Imaging, 2017, 36, 2487-2498.	5.4	44
53	A Generalized Model for Robust Tensor Factorization With Noise Modeling by Mixture of Gaussians. IEEE Transactions on Neural Networks and Learning Systems, 2018, 29, 5380-5393.	7.2	44
54	Bridging the Ultimate Semantic Gap. , 2015, , .		43

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55	Scaled Simplex Representation for Subspace Clustering. IEEE Transactions on Cybernetics, 2021, 51, 1493-1505.	6.2	43
56	Fast and Accurate Content-based Semantic Search in 100M Internet Videos. , 2015, , .		39
57	Investigating Bi-Level Optimization for Learning and Vision From a Unified Perspective: A Survey and Beyond. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 10045-10067.	9.7	37
58	A Novel Sparsity Measure for Tensor Recovery. , 2015, , .		34
59	Decomposition-Based Evolutionary Multiobjective Optimization to Self-Paced Learning. IEEE Transactions on Evolutionary Computation, 2019, 23, 288-302.	7.5	32
60	Spectral-Fidelity Convolutional Neural Networks for Hyperspectral Pansharpening. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 5898-5914.	2.3	32
61	Sparsity-Enhanced Convolutional Decomposition: A Novel Tensor-Based Paradigm for Blind Hyperspectral Unmixing. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	2.7	32
62	Iterative quality enhancement via residual-artifact learning networks for low-dose CT. Physics in Medicine and Biology, 2018, 63, 215004.	1.6	31
63	Distance Metric Learning via Iterated Support Vector Machines. IEEE Transactions on Image Processing, 2017, 26, 4937-4950.	6.0	29
64	Weakly Supervised Lesion Detection From Fundus Images. IEEE Transactions on Medical Imaging, 2019, 38, 1501-1512.	5.4	29
65	PanCSC-Net: A Model-Driven Deep Unfolding Method for Pansharpening. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-13.	2.7	28
66	Low-Dose Dynamic Cerebral Perfusion Computed Tomography Reconstruction via Kronecker-Basis-Representation Tensor Sparsity Regularization. IEEE Transactions on Medical Imaging, 2017, 36, 2546-2556.	5.4	27
67	An Efficient Iterative Cerebral Perfusion CT Reconstruction via Low-Rank Tensor Decomposition With Spatialâ€"Temporal Total Variation Regularization. IEEE Transactions on Medical Imaging, 2019, 38, 360-370.	5.4	27
68	Hyperspectral and Multispectral Image Fusion via Nonlocal Low-Rank Tensor Decomposition and Spectral Unmixing. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 7654-7671.	2.7	27
69	Online Rain/Snow Removal From Surveillance Videos. IEEE Transactions on Image Processing, 2021, 30, 2029-2044.	6.0	27
70	Robust Online CSI Estimation in a Complex Environment. IEEE Transactions on Wireless Communications, 2022, 21, 8322-8336.	6.1	26
71	A Dual-Network Progressive Approach to Weakly Supervised Object Detection. , 2017, , .		25
72	A new quality assessment criterion for nonlinear dimensionality reduction. Neurocomputing, 2011, 74, 941-948.	3.5	22

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73	FastMMD: Ensemble of Circular Discrepancy for Efficient Two-Sample Test. Neural Computation, 2015, 27, 1345-1372.	1.3	22
74	Spectral-Spatial Hyperspectral Image Classification via Robust Low-Rank Feature Extraction and Markov Random Field. Remote Sensing, 2019, 11, 1565.	1.8	21
75	Single image rain streaks removal: a review and an exploration. International Journal of Machine Learning and Cybernetics, 2020, 11, 853-872.	2.3	21
76	Nonlinear Dimensionality Reduction of Data Lying on the Multicluster Manifold. IEEE Transactions on Systems, Man, and Cybernetics, 2008, 38, 1111-1122.	5.5	19
77	Robust Tensor Factorization with Unknown Noise. , 2016, , .		19
78	Robust subspace clustering via penalized mixture of Gaussians. Neurocomputing, 2018, 278, 4-11.	3.5	19
79	Structural residual learning for single image rain removal. Knowledge-Based Systems, 2021, 213, 106595.	4.0	19
80	Uncertainty Guided Multi-Scale Attention Network for Raindrop Removal From a Single Image. IEEE Transactions on Image Processing, 2021, 30, 4828-4839.	6.0	19
81	PM-GANs: Discriminative Representation Learning for Action Recognition Using Partial-Modalities. Lecture Notes in Computer Science, 2018, , 389-406.	1.0	19
82	Momentum Batch Normalization for Deep Learning with Small Batch Size. Lecture Notes in Computer Science, 2020, , 224-240.	1.0	19
83	TSGCNet: Discriminative Geometric Feature Learning with Two-Stream Graph Convolutional Network for 3D Dental Model Segmentation. , 2021, , .		19
84	DICDNet: Deep Interpretable Convolutional Dictionary Network for Metal Artifact Reduction in CT Images. IEEE Transactions on Medical Imaging, 2022, 41, 869-880.	5.4	19
85	A new semi-supervised learning model combined with Cox and SP-AFT models in cancer survival analysis. Scientific Reports, 2017, 7, 13053.	1.6	18
86	SPLBoost: An Improved Robust Boosting Algorithm Based on Self-Paced Learning. IEEE Transactions on Cybernetics, 2021, 51, 1556-1570.	6.2	17
87	Immune checkpoint inhibitors-related myocarditis in patients with cancer: an analysis of international spontaneous reporting systems. BMC Cancer, 2021, 21, 38.	1.1	17
88	Rectifying Supporting Regions With Mixed and Active Supervision for Rib Fracture Recognition. IEEE Transactions on Medical Imaging, 2020, 39, 3843-3854.	5.4	17
89	A dynamic CNN pruning method based on matrix similarity. Signal, Image and Video Processing, 2021, 15, 381-389.	1.7	16
90	Instance Annotation via Optimal BoW for Weakly Supervised Object Localization. IEEE Transactions on Cybernetics, 2017, 47, 1313-1324.	6.2	15

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91	Descriptor Selection via Log-Sum Regularization for the Biological Activities of Chemical Structure. International Journal of Molecular Sciences, 2018, 19, 30.	1.8	15
92	Infrared and Visible Cross-Modal Image Retrieval Through Shared Features. IEEE Transactions on Circuits and Systems for Video Technology, 2021, 31, 4485-4496.	5.6	15
93	Robust Multiview Subspace Learning With Nonindependently and Nonidentically Distributed Complex Noise. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 1070-1083.	7.2	14
94	Improving geodesic distance estimation based on locally linear assumption. Pattern Recognition Letters, 2008, 29, 862-870.	2.6	13
95	Robust sparse principal component analysis. Science China Information Sciences, 2014, 57, 1-14.	2.7	13
96	Pairwise learning for medical image segmentation. Medical Image Analysis, 2021, 67, 101876.	7.0	13
97	InDuDoNet: An Interpretable Dual Domain Network for CT Metal Artifact Reduction. Lecture Notes in Computer Science, 2021, , 107-118.	1.0	13
98	Two-Stream Graph Convolutional Network for Intra-Oral Scanner Image Segmentation. IEEE Transactions on Medical Imaging, 2022, 41, 826-835.	5.4	13
99	Incremental Alignment Manifold Learning. Journal of Computer Science and Technology, 2011, 26, 153-165.	0.9	12
100	Towards Efficient Learning of Optimal Spatial Bag-of-Words Representations. , 2014, , .		12
101	Remote Sensing Image Denoising via Low-Rank Tensor Approximation and Robust Noise Modeling. Remote Sensing, 2020, 12, 1278.	1.8	12
102	Infrared Action Detection in the Dark via Cross-Stream Attention Mechanism. IEEE Transactions on Multimedia, 2022, 24, 288-300.	5.2	12
103	Some New Trends of Deep Learning Research. Chinese Journal of Electronics, 2019, 28, 1087-1091.	0.7	12
104	Dual-Pyramidal Image Inpainting With Dynamic Normalization. IEEE Transactions on Circuits and Systems for Video Technology, 2022, 32, 5975-5988.	5.6	11
105	Survey on rain removal from videos or a single image. Science China Information Sciences, 2022, 65, 1.	2.7	11
106	A block coordinate descent approach for sparse principal component analysis. Neurocomputing, 2015, 153, 180-190.	3.5	10
107	On Convergence Properties of Implicit Self-paced Objective. Information Sciences, 2018, 462, 132-140.	4.0	10
108	Full-Spectrum-Knowledge-Aware Tensor Model for Energy-Resolved CT Iterative Reconstruction. IEEE Transactions on Medical Imaging, 2020, 39, 2831-2843.	5.4	10

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109	Detecting Intrinsic Loops Underlying Data Manifold. IEEE Transactions on Knowledge and Data Engineering, 2013, 25, 337-347.	4.0	9
110	Multi-view stereo via depth map fusion: A coordinate decent optimization method. Neurocomputing, 2016, 178, 46-61.	3.5	8
111	Context-Based Multiscale Unified Network for Missing Data Reconstruction in Remote Sensing Images. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	8
112	Variational Bayes' Method for Functions with Applications to Some Inverse Problems. SIAM Journal of Scientific Computing, 2021, 43, A355-A383.	1.3	8
113	Robust low-rank tensor factorization by cyclic weighted median. Science China Information Sciences, 2015, 58, 1-11.	2.7	7
114	A co-training approach to the classification of local climate zones with multi-source data. , 2017, , .		7
115	Hyperspectral Image Restoration under Complex Multi-Band Noises. Remote Sensing, 2018, 10, 1631.	1.8	7
116	Plenty is Plague: Fine-Grained Learning for Visual Question Answering. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, 44, 697-709.	9.7	7
117	Discovering influential factors in variational autoencoders. Pattern Recognition, 2020, 100, 107166.	5.1	7
118	Contrast-Medium Anisotropy-Aware Tensor Total Variation Model for Robust Cerebral Perfusion CT Reconstruction With Low-Dose Scans. IEEE Transactions on Computational Imaging, 2020, 6, 1375-1388.	2.6	7
119	Multinetwork Collaborative Feature Learning for Semisupervised Person Reidentification. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 4826-4839.	7.2	7
120	Neighbor Matching for Semi-supervised Learning. Lecture Notes in Computer Science, 2021, , 439-449.	1.0	7
121	Learning An Explicit Weighting Scheme for Adapting Complex HSI Noise. , 2021, , .		7
122	A Tensor-Based Online RPCA Model for Compressive Background Subtraction. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 10668-10682.	7.2	7
123	Passage method for nonlinear dimensionality reduction of data on multi-cluster manifolds. Pattern Recognition, 2013, 46, 2175-2186.	5.1	6
124	Learning dictionary from signals under global sparsity constraint. Neurocomputing, 2013, 119, 308-318.	3.5	6
125	A Multiobjective Approach Based on Gaussian Mixture Clustering for Sparse Reconstruction. IEEE Access, 2019, 7, 22684-22697.	2.6	6
126	Color and direction-invariant nonlocal self-similarity prior and its application to color image denoising. Science China Information Sciences, 2020, 63, 1.	2.7	6

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127	Continuous Multi-Angle Remote Sensing and Its Application in Urban Land Cover Classification. Remote Sensing, 2021, 13, 413.	1.8	6
128	Unsupervised Representation Learning for Tissue Segmentation in Histopathological Images: From Global to Local Contrast. IEEE Transactions on Medical Imaging, 2022, 41, 3611-3623.	5.4	6
129	Multilinear Multitask Learning by Rank-Product Regularization. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 1336-1350.	7.2	5
130	Noise-Generating-Mechanism-Driven Unsupervised Learning for Low-Dose CT Sinogram Recovery. IEEE Transactions on Radiation and Plasma Medical Sciences, 2022, 6, 404-414.	2.7	5
131	Understanding self-paced learning under Concave Conjugacy Theory. Communications in Information and Systems, 2018, 18, 1-35.	0.3	5
132	A deep variational Bayesian framework for blind image deblurring. Knowledge-Based Systems, 2022, 249, 109008.	4.0	5
133	Evaluation of a Spatial Relationship by the Concept of Intrinsic Spatial Distance. Geographical Analysis, 2013, 45, 380-400.	1.9	4
134	Following the entire solution path of sparse principal component analysis by coordinate-pairwise algorithm. Data and Knowledge Engineering, 2013, 88, 25-36.	2.1	4
135	Unsupervised Learning of Local Discriminative Representation for Medical Images. Lecture Notes in Computer Science, 2021, , 373-385.	1.0	4
136	Fast Aerial Image Geolocalization Using the Projective-Invariant Contour Feature. Remote Sensing, 2021, 13, 490.	1.8	4
137	Hyperspectral Image Restoration Combining Intrinsic Image Characterization With Robust Noise Modeling. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 1628-1644.	2.3	4
138	Efficient Pyramidal GAN for Versatile Missing Data Reconstruction in Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	2.7	4
139	Dirichlet Process Mixture of Generalized Inverted Dirichlet Distributions for Positive Vector Data With Extended Variational Inference. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 6089-6102.	7.2	3
140	[Invited Paper] Strategies for Searching Video Content with Text Queries or Video Examples. ITE Transactions on Media Technology and Applications, 2016, 4, 227-238.	0.3	3
141	MLR-SNet: Transferable LR Schedules for Heterogeneous Tasks. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2022, , 1-16.	9.7	3
142	A Probabilistic Formulation for Meta-Weight-Net. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 1194-1208.	7.2	2
143	Contrast-medium anisotropy-aware tensor total variation model for robust cerebral perfusion CT reconstruction with weak radiation: a preliminary study. , 2019, , .		2
144	The strong convergence of visual classification method and its applications. Information Sciences, 2013, 249, 85-95.	4.0	1

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145	Joint recognition / segmentation with cascaded multi-level feature classification and confidence propagation. , 2013, , .		1
146	Densityâ€based region search with arbitrary shape for object localisation. IET Computer Vision, 2015, 9, 943-949.	1.3	1
147	Text-to-video: a semantic search engine for internet videos. International Journal of Multimedia Information Retrieval, 2016, 5, 3-18.	3.6	1
148	Photon Counting Computed Tomography Image Restoration via Mixture Gaussian Noise Model: Initial Study. , 2018, , .		0