Hongyan Zhang

List of Publications by Year
in descending order

123 papers	6,631 citations	92079 37 h-index	63582 80 g-index
124 all docs	124 docs citations	124 times ranked	5561 citing authors

#	Article	IF	Citations
1	Hyperspectral Image Restoration Using Low-Rank Matrix Recovery. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 4729-4743.	6.4	672
2	Total-Variation-Regularized Low-Rank Matrix Factorization for Hyperspectral Image Restoration. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 178-188.	6.4	493
3	Image super-resolution: The techniques, applications, and future. Signal Processing, 2016, 128, 389-408.	3.9	408
4	A super-resolution reconstruction algorithm for surveillance images. Signal Processing, 2010, 90, 848-859.	3.9	284
5	A Nonlocal Weighted Joint Sparse Representation Classification Method for Hyperspectral Imagery. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2056-2065.	4.9	251
6	Recovering Quantitative Remote Sensing Products Contaminated by Thick Clouds and Shadows Using Multitemporal Dictionary Learning. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 7086-7098.	6.4	238
7	Hyperspectral Image Denoising via Noise-Adjusted Iterative Low-Rank Matrix Approximation. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 3050-3061.	4.9	214
8	Hyperspectral Anomaly Detection by the Use of Background Joint Sparse Representation. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 2523-2533.	4.9	202
9	Total Variation Regularized Reweighted Sparse Nonnegative Matrix Factorization for Hyperspectral Unmixing. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 3909-3921.	6.4	192
10	Spectralâ€“Spatial Sparse Subspace Clustering for Hyperspectral Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 3672-3684.	6.4	187
11	Hyperspectral Image Classification by Nonlocal Joint Collaborative Representation With a Locally Adaptive Dictionary. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 3707-3719.	6.4	178
12	Hyperspectral Image Denoising Using Local Low-Rank Matrix Recovery and Global Spatialâ€“Spectral Total Variation. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 713-729.	4.9	170
13	Hyperspectral Image Restoration Using Low-Rank Tensor Recovery. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 4589-4604.	4.9	142
14	A super-resolution reconstruction algorithm for hyperspectral images. Signal Processing, 2012, 92, 2082-2096.	3.9	138
15	A Practical Compressed Sensing-Based Pan-Sharpening Method. IEEE Geoscience and Remote Sensing Letters, 2012, 9, 629-633.	3.1	133
16	Adjustable Model-Based Fusion Method for Multispectral and Panchromatic Images. IEEE Transactions on Systems, Man, and Cybernetics, 2012, 42, 1693-1704.	5.3	130
17	Hyperspectral Image Denoising With Total Variation Regularization and Nonlocal Low-Rank Tensor Decomposition. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 3071-3084.	6.4	122
18	Two-Step Sparse Coding for the Pan-Sharpening of Remote Sensing Images. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1792-1805.	4.9	120

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19	Laplacian-Regularized Low-Rank Subspace Clustering for Hyperspectral Image Band Selection. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 1723-1740.	6.4	101
20	A Large-Scale Benchmark Data Set for Evaluating Pansharpening Performance: Overview and Implementation. IEEE Geoscience and Remote Sensing Magazine, 2021, 9, 18-52.	10.3	100
21	Cloud/shadow detection based on spectral indices for multi/hyperspectral optical remote sensing imagery. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 144, 235-253.	11.2	97
22	Sparsity-Regularized Robust Non-Negative Matrix Factorization for Hyperspectral Unmixing. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 4267-4279.	4.9	96
23	Non-local Meets Global: An Integrated Paradigm for Hyperspectral Image Restoration. IEEE Transactions on Pattern Analysis and Machine Intelligence, 2020, PP, 1-1.	15.3	90
24	A New Sparse Subspace Clustering Algorithm for Hyperspectral Remote Sensing Imagery. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 43-47.	3.1	85
25	Remote Sensing Image Spatiotemporal Fusion Using a Generative Adversarial Network. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 4273-4286.	6.4	84
26	Sub-Pixel Mapping Based on a MAP Model With Multiple Shifted Hyperspectral Imagery. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 580-593.	4.9	79
27	Accessing the temporal and spectral features in crop type mapping using multi-temporal Sentinel-2 imagery: A case study of Yiâ€™an County, Heilongjiang province, China. Computers and Electronics in Agriculture, 2020, 176, 105618.	7.9	77
28	Super-Resolution Reconstruction for Multi-Angle Remote Sensing Images Considering Resolution Differences. Remote Sensing, 2014, 6, 637-657.	4.1	68
29	An Online Coupled Dictionary Learning Approach for Remote Sensing Image Fusion. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1284-1294.	4.9	65
30	ESCNet: An End-to-End Superpixel-Enhanced Change Detection Network for Very-High-Resolution Remote Sensing Images. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 28-42.	12.6	52
31	Hyperspectral Image Clustering: Current achievements and future lines. IEEE Geoscience and Remote Sensing Magazine, 2021, 9, 35-67.	10.3	51
32	Hyperspectral Image Denoising Using Factor Group Sparsity-Regularized Nonconvex Low-Rank Approximation. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16.	6.4	48
33	Total Variation Regularized Collaborative Representation Clustering With a Locally Adaptive Dictionary for Hyperspectral Imagery. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 166-180.	6.4	46
34	Weighted Sparse Graph Based Dimensionality Reduction for Hyperspectral Images. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 686-690.	3.1	44
35	Superpixel-based spatial-spectral dimension reduction for hyperspectral imagery classification. Neurocomputing, 2019, 360, 138-150.	6.2	41
36	Supervised Segmentation of Very High Resolution Images by the Use of Extended Morphological Attribute Profiles and a Sparse Transform. IEEE Geoscience and Remote Sensing Letters, 2014, 11, 1409-1413.	3.1	38

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37	Transition Is a Process: Pair-to-Video Change Detection Networks for Very High Resolution Remote Sensing Images. IEEE Transactions on Image Processing, 2023, 32, 57-71.	10.2	38
38	Kernel Sparse Subspace Clustering with a Spatial Max Pooling Operation for Hyperspectral Remote Sensing Data Interpretation. Remote Sensing, 2017, 9, 335.	4.1	37
39	A Localâ€“Global Dual-Stream Network for Building Extraction From Very-High-Resolution Remote Sensing Images. IEEE Transactions on Neural Networks and Learning Systems, 2022, 33, 1269-1283.	12.6	37
40	Adaptive Anisotropic Diffusion Method for Polarimetric SAR Speckle Filtering. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 1041-1050.	4.9	35
41	Pansharpening with a Guided Filter Based on Three-Layer Decomposition. Sensors, 2016, 16, 1068.	4.0	34
42	A Remote Sensing Image Fusion Method Based on the Analysis Sparse Model. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 439-453.	4.9	32
43	Seamless and automated rapeseed mapping for large cloudy regions using time-series optical satellite imagery. ISPRS Journal of Photogrammetry and Remote Sensing, 2022, 184, 45-62.	11.2	32
44	LR-Net: Low-Rank Spatial-Spectral Network for Hyperspectral Image Denoising. IEEE Transactions on Image Processing, 2021, 30, 8743-8758.	10.2	30
45	LESSFormer: Local-Enhanced Spectral-Spatial Transformer for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16.	6.4	30
46	Hyperspectral Image Denoising with a Combined Spatial and Spectral Weighted Hyperspectral Total Variation Model. Canadian Journal of Remote Sensing, 2016, 42, 53-72.	2.3	29
47	An automated early-season method to map winter wheat using time-series Sentinel-2 data: A case study of Shandong, China. Computers and Electronics in Agriculture, 2021, 182, 105962.	7.9	29
48	Double Low-Rank Matrix Decomposition for Hyperspectral Image Denoising and Destriping. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-19.	6.4	29
49	A piece-wise approach to removing the nonlinear and irregular stripes in MODIS data. International Journal of Remote Sensing, 2014, 35, 44-53.	3.0	27
50	Semisupervised Sparse Subspace Clustering Method With a Joint Sparsity Constraint for Hyperspectral Remote Sensing Images. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 989-999.	4.9	27
51	Hyperspectral Image Restoration by Tensor Fibered Rank Constrained Optimization and Plug-and-Play Regularization. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-17.	6.4	27
52	Subspace Clustering for Hyperspectral Images via Dictionary Learning With Adaptive Regularization. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-17.	6.4	26
53	EMS-GCN: An End-to-End Mixhop Superpixel-Based Graph Convolutional Network for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16.	6.4	25
54	Breaking the resolution barrier: A low-to-high network for large-scale high-resolution land-cover mapping using low-resolution labels. ISPRS Journal of Photogrammetry and Remote Sensing, 2022, 192, 244-267.	11.2	25

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55	Large-Scale Semantic 3-D Reconstruction: Outcome of the 2019 IEEE GRSS Data Fusion Contestâ€"Part A. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 922-935.	4.9	23
56	A Robust Sparse Representation Model for Hyperspectral Image Classification. Sensors, 2017, 17, 2087.	4.0	22
57	Nonlocal Means Regularized Sketched Reweighted Sparse and Low-Rank Subspace Clustering for Large Hyperspectral Images. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 4164-4178.	6.4	22
58	Spatial domain bridge transfer : An automated paddy rice mapping method with no training data required and decreased image inputs for the large cloudy area. Computers and Electronics in Agriculture, 2021, 181, 105978.	7.9	22
59	A Nonlinear Multiple Feature Learning Classifier for Hyperspectral Images With Limited Training Samples. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 2728-2738.	4.9	21
60	Robust Registration by Rank Minimization for Multiangle Hyper/Multispectral Remotely Sensed Imagery. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2443-2457.	4.9	20
61	Unsupervised Spectralâ€"Spatial Semantic Feature Learning for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-14.	6.4	20
62	Joint Sparsity Based Sparse Subspace Clustering for Hyperspectral Images. , 2018, , .		19
63	Sparsity-Based Clustering for Large Hyperspectral Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 10410-10424.	6.4	19
64	Hider: A Hyperspectral Image Denoising Transformer With Spatialâ€"Spectral Constraints for Hybrid Noise Removal. IEEE Transactions on Neural Networks and Learning Systems, 2024, 35, 8797-8811.	12.6	18
65	Reweighted mass center based object-oriented sparse subspace clustering for hyperspectral images. Journal of Applied Remote Sensing, 2016, 10, 046014.	1.3	17
66	A Gather-to-Guide Network for Remote Sensing Semantic Segmentation of RGB and Auxiliary Image. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-15.	6.4	17
67	Double Attention Based Multilevel One-Dimensional Convolution Neural Network for Hyperspectral Image Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 3771-3787.	4.9	16
68	Hybrid-Hypergraph Regularized Multiview Subspace Clustering for Hyperspectral Images. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16.	6.4	15
69	The Outcome of the 2021 IEEE GRSS Data Fusion Contestâ€"Track MSD: Multitemporal Semantic Change Detection. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 1643-1655.	4.9	15
70	A Blind Super-Resolution Reconstruction Method Considering Image Registration Errors. International Journal of Fuzzy Systems, 2015, 17, 353-364.	4.0	14
71	Support Vector Machine Classification of Crop Lands Using Sentinel-2 Imagery. , 2018, , .		14
72	Sketch-Based Subspace Clustering of Hyperspectral Images. Remote Sensing, 2020, 12, 775.	4.1	14

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73	Heterogeneous Regularization-Based Tensor Subspace Clustering for Hyperspectral Band Selection. IEEE Transactions on Neural Networks and Learning Systems, 2023, 34, 9259-9273.	12.6	14
74	Multi-temporal cloud detection based on robust PCA for optical remote sensing imagery. Computers and Electronics in Agriculture, 2021, 188, 106342.	7.9	13
75	The Outcome of the 2021 IEEE GRSS Data Fusion Contest - Track DSE: Detection of Settlements Without Electricity. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 12375-12385.	4.9	12
76	Correntropy-Based Autoencoder-Like NMF With Total Variation for Hyperspectral Unmixing. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	11
77	Squaring weighted low-rank subspace clustering for hyperspectral image band selection. , 2016, , .		10
78	Study on Urban Heat Island Intensity Level Identification Based on an Improved Restricted Boltzmann Machine. International Journal of Environmental Research and Public Health, 2018, 15, 186.	2.7	10
79	Unified Framework for the Joint Super-Resolution and Registration of Multiangle Multi/Hyperspectral Remote Sensing Images. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2020, 13, 2369-2384.	4.9	9
80	A Structural Subspace Clustering Approach for Hyperspectral Band Selection. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-15.	6.4	9
81	A Superpixel Guided Sample Selection Neural Network for Handling Noisy Labels in Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 9486-9503.	6.4	9
82	Multi-Level Fusion of the Multi-Receptive Fields Contextual Networks and Disparity Network for Pairwise Semantic Stereo. , 2019, , .		8
83	Cloud Removal of Optical Remote Sensing Imagery with Multitemporal Sar-Optical Data Using X-Mtgan. , 2019, , .		8
84	Anisotropic Spatialâ€“Spectral Total Variation Regularized Double Low-Rank Approximation for HSI Denoising and Destriping. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-19.	6.4	8
85	Spectral-spatial clustering of hyperspectral remote sensing image with sparse subspace clustering model. , 2015, , .		7
86	Automated Paddy Rice Extent Extraction with Time Stacks of Sentinel Data: A Case Study in Jianghan Plain, Hubei, China. , 2018, , .		7
87	Coupled Higher-Order Tensor Factorization for Hyperspectral and LiDAR Data Fusion and Classification. Remote Sensing, 2019, 11, 1959.	4.1	7
88	A Mutual Information Domain Adaptation Network for Remotely Sensed Semantic Segmentation. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-16.	6.4	7
89	Change Cross-Detection Based on Label Improvements and Multi-Model Fusion for Multi-Temporal Remote Sensing Images. , 2021, , .		6
90	Cross-Domain Meta-Learning Under Dual-Adjustment Mode for Few-Shot Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2023, 61, 1-16.	6.4	6

#	Article	IF	Citations
91	A Multi-Model Fusion of Convolution Neural Network and Random Forest for Detecting Settlements Without Electricity. , 2021, , .		5
92	Remote Sensing Image Spatiotemporal Fusion via a Generative Adversarial Network With One Prior Image Pair. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-17.	6.4	5
93	Blind single-image-based thin cloud removal using a cloud perception integrated fast Fourier convolutional network. ISPRS Journal of Photogrammetry and Remote Sensing, 2023, 206, 63-86.	11.2	5
94	UANet: An Uncertainty-Aware Network for Building Extraction From Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62, 1-13.	6.4	5
95	Garlic Mapping for Sentinel-2 Time-Series Data Using a Random Forest Classifier. , 2019, , .		4
96	Background joint sparse representation for hyperspectral image subpixel anomaly detection. , 2014, , .		3
97	A noise-adjusted iterative randomized singular value decomposition method for hyperspectral image denoising. , 2014, , .		3
98	Hyperspectral unmixing using total variation regularized reweighted sparse non-negative matrix factorization. , 2016, , .		3
99	Sketched Sparse Subspace Clustering For Large-Scale Hyperspectral Images. , 2020, , .		3
100	Multiyear Automated Mapping and Price Analysis of Garlic in Main Planting Areas of China Using Time-Series Remote Sensing Images. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2022, 15, 5222-5233.	4.9	3
101	A Spatialâ€“Spectral Transformer Network With Total Variation Loss for Hyperspectral Image Denoising. IEEE Geoscience and Remote Sensing Letters, 2023, 20, 1-5.	3.1	3
102	A MAP Approach for Joint Image Registration, Blur Identification and Super Resolution. , 2009, , .		2
103	Landmark-Based Large-Scale Sparse Subspace Clustering Method for Hyperspectral Images. , 2019, , .		2
104	Remote Sensing Image Spatio-Temporal Fusion via a Generative Adversarial Network Through One Prior Image Pair. , 2020, , .		2
105	A New Comprehensive Drought Index Based on Response Adjustment for Vegetation Types. , 2021, , .		2
106	Robust superresolution of multiangle-multispectral remote sensing images based on rank minimization. , 2016, , .		1
107	Quality improvement of hyperspectral remote sensing images: A technical overview. , 2016, , .		1
108	Learning Discriminative Global and Local Features for Building Extraction from Aerial Images. , 2020, , .		1

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109	GLoCNet: Robust Feature Matching With Globalâ€“Local Consistency Network for Remote Sensing Image Registration. IEEE Transactions on Geoscience and Remote Sensing, 2023, 61, 1-13.	6.4	1
110	Mapping annual center-pivot irrigated cropland in Brazil during the 1985â€“2021 period with cloud platforms and deep learning. ISPRS Journal of Photogrammetry and Remote Sensing, 2023, 205, 227-245.	11.2	1
111	An Unsupervised Dehazing Network With Hybrid Prior Constraints for Hyperspectral Image. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62, 1-15.	6.4	1
112	G2LDIE: Global-to-Local Dynamic Information Enhancement Framework for Weakly Supervised Building Extraction From Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62, 1-14.	6.4	1
113	Classifiction for hyperspectral imagery based on nonlocal weighted joint sparsity model. , 2012, , .		0
114	A unified sub-pixel mapping model integrating spectral unmixing for hyperspectral imagery. , 2013, , .		0
115	Efficient superpixel-oriented multi-task joint sparse representation classification for hyperspectral imagery. , 2015, , .		0
116	Integrated research on land cover changes and the consequent influences: A case study of the western part of Tiaoxi Basin. , 2018, , .		0
117	Land Cover Mapping Based On Multi-Branch Fusion Of Object-Based And Pixel-Based Segmentation With Filtered Labels. , 2020, , .		0
118	Correction to â€œCorrentropy-Based Autoencoder-Like NMF With Total Variation for Hyperspectral Unmixingâ€, IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-1.	3.1	0
119	SOSSF: Landsat-8 Image Synthesis on the Blending of Sentinel-1 and MODIS Data. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62, 1-19.	6.4	0
120	Multitarget Domain Adaptation Building Instance Extraction of Remote Sensing Imagery With Domain-Common Approximation Learning. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62, 1-16.	6.4	0
121	Harmony in diversity: Content cleansing change detection framework for very-high-resolution remote-sensing images. ISPRS Journal of Photogrammetry and Remote Sensing, 2024, 218, 1-19.	11.2	0
122	PSFormer: Pyramid Superpixel Transformer for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2024, 62, 1-16.	6.4	0
123	Pretrain a Remote Sensing Foundation Model by Promoting Intra-instance Similarity. IEEE Transactions on Geoscience and Remote Sensing, 2024, , 1-1.	6.4	0