Javier Plaza

List of Publications by Year
in descending order

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152	8,409	76196	56606
papers	citations	40	83
		h-index	g-index

153	153	153	5439
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	GPU-Friendly Neural Networks for Remote Sensing Scene Classification. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	6
2	Endmember Estimation From Hyperspectral Images Using Geometric Distances. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	5
3	Fast Orthogonal Projection for Hyperspectral Unmixing. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-13.	2.7	6
4	Hyperspectral Anomaly Detection With Relaxed Collaborative Representation. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 1-17.	2.7	19
5	Multibranch Selective Kernel Networks for Hyperspectral Image Classification. IEEE Geoscience and Remote Sensing Letters, 2021, 18, 1089-1093.	1.4	28
6	U-IMG2DSM: Unpaired Simulation of Digital Surface Models With Generative Adversarial Networks. IEEE Geoscience and Remote Sensing Letters, 2021, 18, 1288-1292.	1.4	15
7	FLOP-Reduction Through Memory Allocations Within CNN for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 5938-5952.	2.7	29
8	Ghostnet for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 10378-10393.	2.7	73
9	Analysis of Remotely Sensed Images Through Social Media. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 3026-3039.	2.3	2
10	Endmember Estimation with Maximum Distance Analysis. Remote Sensing, 2021, 13, 713.	1.8	13
11	On the Evaluation of Machine Learning Algorithms for Hyperspectral Image Classification on a Heterogeneous Computing Device. , 2021, , .		0
12	Distributed Deep Learning for Remote Sensing Data Interpretation. Proceedings of the IEEE, 2021, 109, 1320-1349.	16.4	16
13	Subspace Optimal Transport for Spatial Bias Correction of Social Media Data: A Case Study of 2013 Boulder Flood Event. , 2021, , .		1
14	Neighboring Region Dropout for Hyperspectral Image Classification. IEEE Geoscience and Remote Sensing Letters, 2020, 17, 1032-1036.	1.4	11
15	Skip-Connected Covariance Network for Remote Sensing Scene Classification. IEEE Transactions on Neural Networks and Learning Systems, 2020, 31, 1461-1474.	7.2	146
16	A Single Model CNN for Hyperspectral Image Denoising. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 2516-2529.	2.7	87
17	Neural Ordinary Differential Equations for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 1718-1734.	2.7	14
18	A New GPU Implementation of Support Vector Machines for Fast Hyperspectral Image Classification. Remote Sensing, 2020, 12, 1257.	1.8	32

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19	Scalable recurrent neural network for hyperspectral image classification. Journal of Supercomputing, 2020, 76, 8866-8882.	2.4	44
20	Training deep neural networks: a static load balancing approach. Journal of Supercomputing, 2020, 76, 9739-9754.	2.4	10
21	Training Capsnets via Active Learning for Hyperspectral Image Classification. , 2020, , .		2
22	Spatial Downscaling for Global Precipitation Measurement Using a Geographically and Temporally Weighted Regression Model. , 2020, , .		0
23	Radiometric Calibration of Fengyun-3D Mersi-II Satellite: A Case Study in Lake Qinghai, China. , 2020, , .		3
24	Spatial Bias Correction of Social Media Data by Exploiting Remote Sensing Knowledge in Data-Deficient Regions. , 2020, , .		1
25	Deep Pyramidal Residual Networks for Spectralâ€“Spatial Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 740-754.	2.7	347
26	Cloud Deep Networks for Hyperspectral Image Analysis. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 9832-9848.	2.7	23
27	GPU Parallel Implementation of Dual-Depth Sparse Probabilistic Latent Semantic Analysis for Hyperspectral Unmixing. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2019, 12, 3156-3167.	2.3	11
28	Remote Sensing Image Superresolution Using Deep Residual Channel Attention. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 9277-9289.	2.7	67
29	An Efficient and Scalable Framework for Processing Remotely Sensed Big Data in Cloud Computing Environments. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 4294-4308.	2.7	61
30	Visual Attention-Driven Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 8065-8080.	2.7	185
31	Hyperspectral Image Classification Using Random Occlusion Data Augmentation. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 1751-1755.	1.4	86
32	Remote Sensing Single-Image Superresolution Based on a Deep Compendium Model. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 1432-1436.	1.4	45
33	Open Multi-Processing Acceleration for Unsupervised Land Cover Categorization Using Probabilistic Latent Semantic Analysis. , 2019, , .		0
34	Solving Deep Neural Networks with Ordinary Differential Equations for Remotely Sensed Hyperspectral Image Classification. , 2019, , .		1
35	Efficient Convolutional Neural Network for Spectral-Spatial Hyperspectral Denoising. , 2019, , .		2
36	Multi-Task Learning with Low-Rank Matrix Factorization for Hyperspectral Nonlinear Unmixing. , 2019, , .		8

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37	Deep learning classifiers for hyperspectral imaging: A review. ISPRS Journal of Photogrammetry and Remote Sensing, 2019, 158, 279-317.	4.9	580
38	Feature Extraction With Multiscale Covariance Maps for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 755-769.	2.7	182
39	Capsule Networks for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 2145-2160.	2.7	261
40	Lowâ€“High-Power Consumption Architectures for Deep-Learning Models Applied to Hyperspectral Image Classification. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 776-780.	1.4	31
41	Estudio Comparativo de TÃ©cnicas de ClasificaciÃ³n de ImÃ¡genes Hiperespectrales. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2019, 16, 129.	0.6	14
42	A real-time unsupervised background extraction-based target detection method for hyperspectral imagery. Journal of Real-Time Image Processing, 2018, 15, 597-615.	2.2	18
43	Multicore Real-Time Implementation of a Full Hyperspectral Unmixing Chain. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 744-748.	1.4	7
44	A New Spatialâ€“Spectral Feature Extraction Method for Hyperspectral Images Using Local Covariance Matrix Representation. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 3534-3546.	2.7	153
45	GPU Parallel Implementation of Spatially Adaptive Hyperspectral Image Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 1131-1143.	2.3	57
46	A new deep convolutional neural network for fast hyperspectral image classification. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 145, 120-147.	4.9	418
47	An Investigation on Self-Normalized Deep Neural Networks for Hyperspectral Image Classification. , 2018, , .		5
48	Hyperspectral Image Classification Using Parallel Autoencoding Diabolo Networks on Multi-Core and Many-Core Architectures. Electronics (Switzerland), 2018, 7, 411.	1.8	7
49	Inter-Sensor Regression Analysis for Operational Sentinel-2 and Sentinel-3 Data Products. , 2018, , .		0
50	Remote Sensing Image Fusion Using Hierarchical Multimodal Probabilistic Latent Semantic Analysis. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 4982-4993.	2.3	54
51	Evaluation of Different Regularization Methods for the Extreme Learning Machine Applied to Hyperspectral Images. , 2018, , .		1
52	Special issue on advances in real-time image processing for remote sensing. Journal of Real-Time Image Processing, 2018, 15, 435-438.	2.2	4
53	Deep&Dense Convolutional Neural Network for Hyperspectral Image Classification. Remote Sensing, 2018, 10, 1454.	1.8	85
54	Multimodal Probabilistic Latent Semantic Analysis for Sentinel-1 and Sentinel-2 Image Fusion. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 1347-1351.	1.4	30

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55	A New Deep Generative Network for Unsupervised Remote Sensing Single-Image Super-Resolution. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 6792-6810.	2.7	129
56	Active Learning With Convolutional Neural Networks for Hyperspectral Image Classification Using a New Bayesian Approach. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 6440-6461.	2.7	210
57	Stacked Nonnegative Sparse Autoencoders for Robust Hyperspectral Unmixing. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 1427-1431.	1.4	76
58	Estimating Nonlinearities in p-Linear Hyperspectral Mixtures. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 6586-6595.	2.7	6
59	Remote Sensing Scene Classification Using Multilayer Stacked Covariance Pooling. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 6899-6910.	2.7	232
60	Fast dimensionality reduction and classification of hyperspectral images with extreme learning machines. Journal of Real-Time Image Processing, 2018, 15, 439-462.	2.2	35
61	Hyperspectral Unmixing Based on Dual-Depth Sparse Probabilistic Latent Semantic Analysis. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 6344-6360.	2.7	44
62	Parallel Implementation of Spatialâ€“Spectral Endmember Extraction on Graphic Processing Units. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 1247-1255.	2.3	10
63	Robust Matrix Discriminative Analysis for Feature Extraction From Hyperspectral Images. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 2002-2011.	2.3	32
64	Social Media: New Perspectives to Improve Remote Sensing for Emergency Response. Proceedings of the IEEE, 2017, 105, 1900-1912.	16.4	45
65	Advanced Spectral Classifiers for Hyperspectral Images: A review. IEEE Geoscience and Remote Sensing Magazine, 2017, 5, 8-32.	4.9	893
66	Fusion of Hyperspectral and LiDAR Data Using Sparse and Low-Rank Component Analysis. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 6354-6365.	2.7	87
67	Efficient implementation of morphological index for building/shadow extraction from remotely sensed images. Journal of Supercomputing, 2017, 73, 482-494.	2.4	9
68	Cloud implementation of the K-means algorithm for hyperspectral image analysis. Journal of Supercomputing, 2017, 73, 514-529.	2.4	86
69	Advances in Hyperspectral Image and Signal Processing: A Comprehensive Overview of the State of the Art. IEEE Geoscience and Remote Sensing Magazine, 2017, 5, 37-78.	4.9	533
70	Onboard payload-data dimensionality reduction. , 2017, , .		2
71	Impervious surface extraction from multispectral images using morphological attribute profiles and spectral mixture analysis. , 2017, , .		0
72	Spatial weighted sparse regression for hyperspectral image unmixing. , 2017, , .		2

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73	Multicore implementation of the multi-scale adaptive deep pyramid matching model for remotely sensed image classification. , 2017, , .		3
74	On the optimization of memory access to increase the performance of spatial preprocessing techniques on graphics processing units. , 2016, , .		1
75	Fast spatial-spectral preprocessing for endmember extraction and spectral unmixing using graphic processing units. , 2016, , .		1
76	GPU Implementation of Spatialâ€“Spectral Preprocessing for Hyperspectral Unmixing. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 1671-1675.	1.4	8
77	Spatial-spectral preprocessing for endmember extraction on GPU's. Proceedings of SPIE, 2016, , .	0.8	0
78	An iterative enhancement of higher order nonlinear mixture model for accurate hyperspectral unmixing. , 2016, , .		0
79	Fast Spatial Preprocessing for Spectral Unmixing of Hyperspectral Data on Graphics Processing Units. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 952-961.	2.3	15
80	Nonlinear Hyperspectral Unmixing Using Nonlinearity Order Estimation and Polytope Decomposition. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 2644-2654.	2.3	35
81	GPU implementation of spatial preprocessing for spectral unmixing of hyperspectral data. , 2015, , .		4
82	Nonlinear Method of Reduction of Dimensionality Based on Artificial Neural Network and Hardware Implementation. , 2015, , 69-79.		0
83	Integrating multiple nonlinear estimators into hyperspectral unmixing. , 2014, , .		3
84	On the minimum volume simplex enclosure problem for estimating a linear mixing model. Journal of Global Optimization, 2013, 56, 957-970.	1.1	7
85	A New Minimum-Volume Enclosing Algorithm for Endmember Identification and Abundance Estimation in Hyperspectral Data. IEEE Transactions on Geoscience and Remote Sensing, 2012, 50, 2744-2757.	2.7	47
86	On Endmember Identification in Hyperspectral Images Without Pure Pixels: A Comparison of Algorithms. Journal of Mathematical Imaging and Vision, 2012, 42, 163-175.	0.8	78
87	On the incorporation of spatial information to endmember identification algorithms without the pure pixel assumption. , 2011, , .		1
88	Recent Developments in Endmember Extraction and Spectral Unmixing. , 2011, , 235-267.		58
89	Parallel Hyperspectral Image and Signal Processing [Applications Corner]. IEEE Signal Processing Magazine, 2011, 28, 119-126.	4.6	114
90	Parallel implementation of linear and nonlinear spectral unmixing of remotely sensed hyperspectral images. , 2011, , .		4

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91	Parallel heterogeneous CBIR system for efficient hyperspectral image retrieval using spectral mixture analysis. Concurrency Computation Practice and Experience, 2010, 22, 1138-1159.	1.4	9
92	Improving the Performance of Hyperspectral Image and Signal Processing Algorithms Using Parallel, Distributed and Specialized Hardware-Based Systems. Journal of Signal Processing Systems, 2010, 61, 293-315.	1.4	45
93	Spectral Mixture Analysis of Hyperspectral Scenes Using Intelligently Selected Training Samples. IEEE Geoscience and Remote Sensing Letters, 2010, 7, 371-375.	1.4	31
94	Improving the scalability of hyperspectral imaging applications on heterogeneous platforms using adaptive run-time data compression. Computers and Geosciences, 2010, 36, 1283-1291.	2.0	5
95	Automatic selection of informative samples for SVM-based classification of hyperspectral data using limited training sets. , 2010, , .		3
96	Impact of Vector Ordering Strategies on Morphological Unmixing of Remotely Sensed Hyperspectral Images. , 2010, , .		2
97	Near real-time endmember extraction from remotely sensed hyperspectral data using NVidia GPUs. , 2010, , .		3
98	Minimum volume simplicial enclosure for spectral unmixing of remotely sensed hyperspectral data. , 2010, , .		3
99	Comparative analysis of training strategies for neural network-based spectral unmixing of laboratory-simulated forest hyperspectral scenes. , 2010, , .		0
100	Incorporation of spatial constraints into spectral mixture analysis of remotely sensed hyperspectral data. , 2009, , .		39
101	Multi-Channel Morphological Profiles for Classification of Hyperspectral Images Using Support Vector Machines. Sensors, 2009, 9, 196-218.	2.1	44
102	Improving the scalability of parallel algorithms for hyperspectral image analysis using adaptive message compression. , 2009, , .		0
103	On the use of small training sets for neural network-based characterization of mixed pixels in remotely sensed hyperspectral images. Pattern Recognition, 2009, 42, 3032-3045.	5.1	92
104	Spatial-spectral endmember extraction from hyperspectral imagery using multi-band morphology and volume optimization. , 2009, , .		1
105	Parallel implementation of endmember extraction algorithms using NVidia graphical processing units. , 2009, , .		9
106	Endmember extraction from hyperspectral imagery using a parallel ensemble approach with consensus analysis. , 2009, , .		2
107	<title>Lossy hyperspectral image compression tuned for spectral mixture analysis applications on NVidia graphics processing units</title>. Proceedings of SPIE, 2009, , .	0.8	2
108	A fast sequential endmember extraction algorithm based on unconstrained linear spectral unmixing. , 2009, , .		2

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109	<title>Comparative analysis of different implementations of a parallel algorithm for automatic target detection and classification of hyperspectral images</title>. , 2009, , .		15
110	<title>Massively parallel processing of remotely sensed hyperspectral images</title>. , 2009, , .		3
111	Endmember extraction algorithms from hyperspectral images. Annals of Geophysics, 2009, 49, .	0.5	11
112	Parallel morphological/neural processing of hyperspectral images using heterogeneous and homogeneous platforms. Cluster Computing, 2008, 11, 17-32.	3.5	14
113	An experimental comparison of parallel algorithms for hyperspectral analysis using heterogeneous and homogeneous networks of workstations. Parallel Computing, 2008, 34, 92-114.	1.3	36
114	Morphological feature extraction and spectral unmixing of hyperspectral images. , 2008, , .		1
115	Parallel Morphological Classification of Hyperspectral Imagery Using Extended Opening and Closing by Reconstruction Operations. , 2008, , .		7
116	Parallel Processing of Remotely Sensed Hyperspectral Images On Heterogeneous Networks of Workstations Using HeteroMPI. International Journal of High Performance Computing Applications, 2008, 22, 386-407.	2.4	17
117	Parallel Classification of Hyperspectral Images Using Neural Networks. Studies in Computational Intelligence, 2008, , 193-216.	0.7	6
118	Parallel Detection of Targets in Hyperspectral Images Using Heterogeneous Networks of Workstations. , 2007, , .		4
119	Joint linear/nonlinear spectral unmixing of hyperspectral image data. , 2007, , .		23
120	Efficient Multi-Band Texture Analysis for Remotely Sensed Data Interpretation in Urban Areas. , 2007, , .		10
121	Parallel CBIR System for Efficient Hyperspectral Image Retrieval from Heterogeneous Networks of Workstations. , 2007, , .		6
122	Impact of platform heterogeneity on the design of parallel algorithms for morphological processing of high-dimensional image data. Journal of Supercomputing, 2007, 40, 81-107.	2.4	38
123	Parallel Implementation of Morphological Neural Networks for Hyperspectral Image Analysis. Chapman & Hall/CRC Computer and Information Science Series, 2007, , 131-150.	0.4	0
124	Parallel Wildland Fire Monitoring and Tracking Using Remotely Sensed Data. Chapman & Hall/CRC Computer and Information Science Series, 2007, , 151-182.	0.4	0
125	Parallel Implementation of Endmember Extraction Algorithms From Hyperspectral Data. IEEE Geoscience and Remote Sensing Letters, 2006, 3, 334-338.	1.4	50
126	Parallel Morphological/Neural Classification of Remote Sensing Images Using Fully Heterogeneous and Homogeneous Commodity Clusters. , 2006, , .		8

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127	Distributed Computing for Efficient Hyperspectral Imaging Using Fully Heterogeneous Networks of Workstations. , 2006, , .		0
128	Parallel Implementation of Hyperspectral Image Processing Algorithms. , 2006, , .		2
129	Commodity cluster and hardware-based massively parallel implementations of hyperspectral imaging algorithms. , 2006, , .		3
130	Commodity cluster-based parallel processing of hyperspectral imagery. Journal of Parallel and Distributed Computing, 2006, 66, 345-358.	2.7	182
131	High-performance computing in remotely sensed hyperspectral imaging: the Pixel Purity Index algorithm as a case study. , 2006, , .		4
132	AMEEPAR: Parallel Morphological Algorithm for Hyperspectral Image Classification on Heterogeneous Networks of Workstations. Lecture Notes in Computer Science, 2006, , 24-31.	1.0	12
133	Parallel Segmentation of Multi-Channel Images Using Multi-Dimentional Mathematical Morphology. , 2006, , 270-291.		1
134	An experimental evaluation of endmember generation algorithms. , 2005, 5995, 599501.		6
135	On the generation of training samples for neural network-based mixed pixel classification. , 2005, , .		5
136	Dimensionality reduction and classification of hyperspectral image data using sequences of extended morphological transformations. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 466-479.	2.7	354
137	Mapping oil spills on sea water using spectral mixture analysis of hyperspectral image data. , 2005, , .		15
138	Analysis of the behavior of a neural network model in the identification and quantification of hyperspectral signatures applied to the determination of water quality. , 2004, 5584, 174.		5
139	Nonlinear neural-network-based mixture model for estimating the concentration of nitrogen salts in turbid inland waters using hyperspectral imagery. , 2004, 5584, 165.		11
140	A Quantitative and Comparative Analysis of Endmember Extraction Algorithms From Hyperspectral Data. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 650-663.	2.7	528
141	A new approach to mixed pixel classification of hyperspectral imagery based on extended morphological profiles. Pattern Recognition, 2004, 37, 1097-1116.	5.1	114
142	Hyperspectral image analysis by scale-orientation morphological profiles. , 2004, 5238, 432.		2
143	Nonlinear mixture models for analyzing laboratory simulated-forest hyperspectral data. , 2004, , .		11
144	Spatial/spectral endmember extraction by multidimensional morphological operations. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 2025-2041.	2.7	426

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145	A new method for target detection in hyperspectral imagery based on extended morphological profiles. , 0, , .		11
146	H-COMP: a tool for quantitative and comparative analysis of endmember identification algorithms. , 0, , .		14
147	Spatial/spectral analysis of hyperspectral image data. , 0, , .		17
148	On the Use of Cluster Computing Architectures for Implementation of Hyperspectral Image Analysis Algorithms. , 0, , .		8
149	Efficient information extraction from hyperspectral imagery using networks of workstations. , 0, , .		1
150	Automated generation of semi-labeled training samples for nonlinear neural network-based abundance estimation in hyperspectral data. , 0, , .		9
151	Parallel Hyperspectral Image Processing on Commodity Graphics Hardware. , 0, , .		9
152	Parallel Segmentation of Multi-Channel Images Using Multi-Dimensional Mathematical Morphology. , 0, , 321-340.		1