

# Jon Atli Benediktsson

## List of Publications by Year in descending order

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453  
papers

34,534  
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3933

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176  
g-index

462  
all docs

462  
docs citations

462  
times ranked

14895  
citing authors

#	ARTICLE	IF	CITATIONS
1	Random Forests for land cover classification. Pattern Recognition Letters, 2006, 27, 294-300.	4.2	1,610
2	Recent advances in techniques for hyperspectral image processing. Remote Sensing of Environment, 2009, 113, S110-S122.	11.0	1,452
3	Classification of hyperspectral data from urban areas based on extended morphological profiles. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 480-491.	6.3	1,189
4	Advances in Spectral-Spatial Classification of Hyperspectral Images. Proceedings of the IEEE, 2013, 101, 652-675.	21.3	1,082
5	Deep Learning for Hyperspectral Image Classification: An Overview. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 6690-6709.	6.3	977
6	Spectral and Spatial Classification of Hyperspectral Data Using SVMs and Morphological Profiles. IEEE Transactions on Geoscience and Remote Sensing, 2008, 46, 3804-3814.	6.3	930
7	Neural Network Approaches Versus Statistical Methods In Classification Of Multisource Remote Sensing Data. IEEE Transactions on Geoscience and Remote Sensing, 1990, 28, 540-552.	6.3	757
8	A new approach for the morphological segmentation of high-resolution satellite imagery. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 309-320.	6.3	715
9	SVM- and MRF-Based Method for Accurate Classification of Hyperspectral Images. IEEE Geoscience and Remote Sensing Letters, 2010, 7, 736-740.	3.1	651
10	Classification and feature extraction for remote sensing images from urban areas based on morphological transformations. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 1940-1949.	6.3	642
11	Morphological Attribute Profiles for the Analysis of Very High Resolution Images. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 3747-3762.	6.3	626
12	Spectral-Spatial Hyperspectral Image Classification With Edge-Preserving Filtering. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 2666-2677.	6.3	614
13	Spectral-Spatial Classification of Hyperspectral Imagery Based on Partitional Clustering Techniques. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 2973-2987.	6.3	590
14	Advances in Hyperspectral Image Classification: Earth Monitoring with Statistical Learning Methods. IEEE Signal Processing Magazine, 2014, 31, 45-54.	5.6	580
15	Segmentation and classification of hyperspectral images using watershed transformation. Pattern Recognition, 2010, 43, 2367-2379.	8.1	506
16	Generative Adversarial Networks for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 5046-5063.	6.3	497
17	Generalized Composite Kernel Framework for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 4816-4829.	6.3	439
18	Feature Extraction for Hyperspectral Imagery: The Evolution From Shallow to Deep: Overview and Toolbox. IEEE Geoscience and Remote Sensing Magazine, 2020, 8, 60-88.	9.6	373

#	ARTICLE	IF	CITATIONS
19	Feature Selection Based on Hybridization of Genetic Algorithm and Particle Swarm Optimization. IEEE Geoscience and Remote Sensing Letters, 2015, 12, 309-313.	3.1	364
20	Big Data for Remote Sensing: Challenges and Opportunities. Proceedings of the IEEE, 2016, 104, 2207-2219.	21.3	351
21	Classification of Hyperspectral Images by Using Extended Morphological Attribute Profiles and Independent Component Analysis. IEEE Geoscience and Remote Sensing Letters, 2011, 8, 542-546.	3.1	340
22	Extended profiles with morphological attribute filters for the analysis of hyperspectral data. International Journal of Remote Sensing, 2010, 31, 5975-5991.	2.9	339
23	Fusion of Support Vector Machines for Classification of Multisensor Data. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 3858-3866.	6.3	329
24	Classification of Hyperspectral Images by Exploiting Spectral-Spatial Information of Superpixel via Multiple Kernels. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 6663-6674.	6.3	326
25	Hyperspectral Image Classification With Independent Component Discriminant Analysis. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 4865-4876.	6.3	325
26	A Survey on Spectral-Spatial Classification Techniques Based on Attribute Profiles. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 2335-2353.	6.3	312
27	Multisource and Multitemporal Data Fusion in Remote Sensing: A Comprehensive Review of the State of the Art. IEEE Geoscience and Remote Sensing Magazine, 2019, 7, 6-39.	9.6	302
28	Consensus theoretic classification methods. IEEE Transactions on Systems, Man, and Cybernetics, 1992, 22, 688-704.	0.9	298
29	Hyperspectral Anomaly Detection With Attribute and Edge-Preserving Filters. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 5600-5611.	6.3	291
30	Spectral-Spatial Hyperspectral Image Classification via Multiscale Adaptive Sparse Representation. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 7738-7749.	6.3	286
31	Multiple Feature Learning for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 1592-1606.	6.3	282
32	Linear Versus Nonlinear PCA for the Classification of Hyperspectral Data Based on the Extended Morphological Profiles. IEEE Geoscience and Remote Sensing Letters, 2012, 9, 447-451.	3.1	273
33	PCA-Based Edge-Preserving Features for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 7140-7151.	6.3	273
34	Sensitivity of Support Vector Machines to Random Feature Selection in Classification of Hyperspectral Data. IEEE Transactions on Geoscience and Remote Sensing, 2010, 48, 2880-2889.	6.3	263
35	New Frontiers in Spectral-Spatial Hyperspectral Image Classification: The Latest Advances Based on Mathematical Morphology, Markov Random Fields, Segmentation, Sparse Representation, and Deep Learning. IEEE Geoscience and Remote Sensing Magazine, 2018, 6, 10-43.	9.6	255
36	An efficient method for segmentation of images based on fractional calculus and natural selection. Expert Systems With Applications, 2012, 39, 12407-12417.	7.6	251

#	ARTICLE	IF	CITATIONS
37	Segmentation and Classification of Hyperspectral Images Using Minimum Spanning Forest Grown From Automatically Selected Markers. IEEE Transactions on Systems, Man, and Cybernetics, 2010, 40, 1267-1279.	5.0	250
38	Feature Extraction of Hyperspectral Images With Image Fusion and Recursive Filtering. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 3742-3752.	6.3	248
39	A spatialâ€“spectral kernel-based approach for the classification of remote-sensing images. Pattern Recognition, 2012, 45, 381-392.	8.1	245
40	Multiple classifiers applied to multisource remote sensing data. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 2291-2299.	6.3	244
41	Automatic Retinal Oximetry. , 2006, 47, 5011.		241
42	Spectralâ€“Spatial Classification of Hyperspectral Images With a Superpixel-Based Discriminative Sparse Model. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 4186-4201.	6.3	229
43	Classification of multisource and hyperspectral data based on decision fusion. IEEE Transactions on Geoscience and Remote Sensing, 1999, 37, 1367-1377.	6.3	223
44	Multilevel Image Segmentation Based on Fractional-Order Darwinian Particle Swarm Optimization. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 2382-2394.	6.3	212
45	Advanced directional mathematical morphology for the detection of the road network in very high resolution remote sensing images. Pattern Recognition Letters, 2010, 31, 1120-1127.	4.2	210
46	Kernel Principal Component Analysis for the Classification of Hyperspectral Remote Sensing Data over Urban Areas. Eurasip Journal on Advances in Signal Processing, 2009, 2009, .	1.7	207
47	Decision Fusion for the Classification of Urban Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2006, 44, 2828-2838.	6.3	205
48	Nonlinear Multiple Kernel Learning With Multiple-Structure-Element Extended Morphological Profiles for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 3235-3247.	6.3	203
49	Land-Cover Mapping by Markov Modeling of Spatialâ€“Contextual Information in Very-High-Resolution Remote Sensing Images. Proceedings of the IEEE, 2013, 101, 631-651.	21.3	200
50	Exploiting Spectral and Spatial Information in Hyperspectral Urban Data With High Resolution. IEEE Geoscience and Remote Sensing Letters, 2004, 1, 322-326.	3.1	196
51	Multiple Kernel Learning for Hyperspectral Image Classification: A Review. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 6547-6565.	6.3	194
52	Challenges and Opportunities of Multimodality and Data Fusion in Remote Sensing. Proceedings of the IEEE, 2015, 103, 1585-1601.	21.3	165
53	Semisupervised Self-Learning for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 4032-4044.	6.3	164
54	Spectralâ€“Spatial Classification of Hyperspectral Images Based on Hidden Markov Random Fields. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 2565-2574.	6.3	159

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55	Remotely Sensed Image Classification Using Sparse Representations of Morphological Attribute Profiles. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 5122-5136.	6.3	157
56	Parallel consensual neural networks. IEEE Transactions on Neural Networks, 1997, 8, 54-64.	4.2	151
57	Multiple Spectral-Spatial Classification Approach for Hyperspectral Data. IEEE Transactions on Geoscience and Remote Sensing, 2010, , .	6.3	150
58	Intrinsic Image Decomposition for Feature Extraction of Hyperspectral Images. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 2241-2253.	6.3	148
59	Hyperspectral Image Classification via Multiple-Feature-Based Adaptive Sparse Representation. IEEE Transactions on Instrumentation and Measurement, 2017, 66, 1646-1657.	4.7	147
60	Automatic Design of Convolutional Neural Network for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 7048-7066.	6.3	145
61	Spectral Unmixing for the Classification of Hyperspectral Images at a Finer Spatial Resolution. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 521-533.	10.8	139
62	Classification of Remote Sensing Optical and LiDAR Data Using Extended Attribute Profiles. IEEE Journal on Selected Topics in Signal Processing, 2012, 6, 856-865.	10.8	139
63	Model-Based Fusion of Multi- and Hyperspectral Images Using PCA and Wavelets. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 2652-2663.	6.3	135
64	Support Tensor Machines for Classification of Hyperspectral Remote Sensing Imagery. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 3248-3264.	6.3	131
65	Extinction Profiles for the Classification of Remote Sensing Data. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 5631-5645.	6.3	122
66	On the decomposition of Mars hyperspectral data by ICA and Bayesian positive source separation. Neurocomputing, 2008, 71, 2194-2208.	5.9	121
67	Mapping of hyperspectral AVIRIS data using machine-learning algorithms. Canadian Journal of Remote Sensing, 2009, 35, S106-S116.	2.4	120
68	Spectral-Spatial Adaptive Sparse Representation for Hyperspectral Image Denoising. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 373-385.	6.3	119
69	Hyperspectral Image Classification Via Shape-Adaptive Joint Sparse Representation. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 556-567.	4.9	108
70	Spectral-Spatial Classification of Hyperspectral Data Based on a Stochastic Minimum Spanning Forest Approach. IEEE Transactions on Image Processing, 2012, 21, 2008-2021.	9.8	107
71	Classification of Remote Sensing Images From Urban Areas Using a Fuzzy Possibilistic Model. IEEE Geoscience and Remote Sensing Letters, 2006, 3, 40-44.	3.1	106
72	An Unsupervised Technique Based on Morphological Filters for Change Detection in Very High Resolution Images. IEEE Geoscience and Remote Sensing Letters, 2008, 5, 433-437.	3.1	106

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73	Automatic Generation of Standard Deviation Attribute Profiles for Spectralâ€“Spatial Classification of Remote Sensing Data. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 293-297.	3.1	106
74	A Novel Technique for Optimal Feature Selection in Attribute Profiles Based on Genetic Algorithms. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 3514-3528.	6.3	105
75	Extended Random Walker-Based Classification of Hyperspectral Images. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 144-153.	6.3	104
76	Extinction Profiles Fusion for Hyperspectral Images Classification. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 1803-1815.	6.3	104
77	Effective Denoising and Classification of Hyperspectral Images Using Curvelet Transform and Singular Spectrum Analysis. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 119-133.	6.3	102
78	Automatic Framework for Spectralâ€“Spatial Classification Based on Supervised Feature Extraction and Morphological Attribute Profiles. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2147-2160.	4.9	101
79	Land Cover Change Detection Techniques: Very-high-resolution optical images: A review. IEEE Geoscience and Remote Sensing Magazine, 2022, 10, 44-63.	9.6	101
80	Automatic Spectralâ€“Spatial Classification Framework Based on Attribute Profiles and Supervised Feature Extraction. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 5771-5782.	6.3	100
81	Conjugate-gradient neural networks in classification of multisource and very-high-dimensional remote sensing data. International Journal of Remote Sensing, 1993, 14, 2883-2903.	2.9	99
82	A Novel Feature Selection Approach Based on FODPSO and SVM. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 2935-2947.	6.3	98
83	Automatic retinal vessel extraction based on directional mathematical morphology and fuzzy classification. Pattern Recognition Letters, 2014, 47, 164-171.	4.2	97
84	Feature extraction for multisource data classification with artificial neural networks. International Journal of Remote Sensing, 1997, 18, 727-740.	2.9	96
85	Automatic selection of molecular descriptors using random forest: Application to drug discovery. Expert Systems With Applications, 2017, 72, 151-159.	7.6	96
86	Hybrid consensus theoretic classification. IEEE Transactions on Geoscience and Remote Sensing, 1997, 35, 833-843.	6.3	95
87	Pansharpener With Matting Model. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 5088-5099.	6.3	94
88	Hyperspectral Image Classification With Rotation Random Forest Via KPCA. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2017, 10, 1601-1609.	4.9	93
89	Change Detection in VHR Images Based on Morphological Attribute Profiles. IEEE Geoscience and Remote Sensing Letters, 2013, 10, 636-640.	3.1	92
90	Fusion of Multiple Edge-Preserving Operations for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 10336-10349.	6.3	92

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91	Multiple Classifier Systems in Remote Sensing: From Basics to Recent Developments. , 2007, , 501-512.		91
92	A Novel MKL Model of Integrating LiDAR Data and MSI for Urban Area Classification. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 5312-5326.	6.3	90
93	A classifier ensemble based on fusion of support vector machines for classifying hyperspectral data. International Journal of Image and Data Fusion, 2010, 1, 293-307.	1.7	89
94	A Novel Approach for Multispectral Satellite Image Classification Based on the Bat Algorithm. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 599-603.	3.1	88
95	Landslide Inventory Mapping From Bitemporal High-Resolution Remote Sensing Images Using Change Detection and Multiscale Segmentation. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 1520-1532.	4.9	87
96	Change Detection From Very-High-Spatial-Resolution Optical Remote Sensing Images: Methods, applications, and future directions. IEEE Geoscience and Remote Sensing Magazine, 2021, 9, 68-101.	9.6	85
97	Very High-Resolution Remote Sensing: Challenges and Opportunities [Point of View]. Proceedings of the IEEE, 2012, 100, 1907-1910.	21.3	84
98	Oxygen Saturation in Human Retinal Vessels Is Higher in Dark Than in Light. , 2009, 50, 2308.		82
99	Spectral and Spatial Classification of Hyperspectral Images Based on ICA and Reduced Morphological Attribute Profiles. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 6223-6240.	6.3	81
100	Classification and feature extraction of AVIRIS data. IEEE Transactions on Geoscience and Remote Sensing, 1995, 33, 1194-1205.	6.3	79
101	Novel Land Cover Change Detection Method Based on k-Means Clustering and Adaptive Majority Voting Using Bitemporal Remote Sensing Images. IEEE Access, 2019, 7, 34425-34437.	4.2	79
102	Hyperspectral Image Classification With Squeeze Multibias Network. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 1291-1301.	6.3	79
103	Lunar impact crater identification and age estimation with Changâ€™E™E data by deep and transfer learning. Nature Communications, 2020, 11, 6358.	12.8	79
104	A Novel Automatic Change Detection Method for Urban High-Resolution Remotely Sensed Imagery Based on Multiindex Scene Representation. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 609-625.	6.3	77
105	Deep Convolutional Capsule Network for Hyperspectral Image Spectral and Spectral-Spatial Classification. Remote Sensing, 2019, 11, 223.	4.0	77
106	Detection and Correction of Mislabeled Training Samples for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 5673-5686.	6.3	75
107	Hyperspectral Unmixing on GPUs and Multi-Core Processors: A Comparison. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2013, 6, 1386-1398.	4.9	73
108	On Understanding Big Data Impacts in Remotely Sensed Image Classification Using Support Vector Machine Methods. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 4634-4646.	4.9	71

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109	Probabilistic Fusion of Pixel-Level and Superpixel-Level Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 7416-7430.	6.3	71
110	From Subpixel to Superpixel: A Novel Fusion Framework for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 4398-4411.	6.3	71
111	Spatial Density Peak Clustering for Hyperspectral Image Classification With Noisy Labels. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 5085-5097.	6.3	71
112	A Marker-Based Approach for the Automated Selection of a Single Segmentation From a Hierarchical Set of Image Segmentations. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2012, 5, 262-272.	4.9	70
113	Quantitative Quality Evaluation of Pansharpened Imagery: Consistency Versus Synthesis. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 1247-1259.	6.3	70
114	Classification of Pansharpened Urban Satellite Images. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2012, 5, 281-297.	4.9	69
115	Spectral-Spatial Hyperspectral Image Classification Using Subspace-Based Support Vector Machines and Adaptive Markov Random Fields. Remote Sensing, 2016, 8, 355.	4.0	69
116	Land-cover classification using both hyperspectral and LiDAR data. International Journal of Image and Data Fusion, 2015, 6, 189-215.	1.7	66
117	Evaluation of Kernels for Multiclass Classification of Hyperspectral Remote Sensing Data. , 0, , .		65
118	Spectral-Spatial Classification of Multispectral Images Using Kernel Feature Space Representation. IEEE Geoscience and Remote Sensing Letters, 2014, 11, 288-292.	3.1	65
119	The effect of classifier agreement on the accuracy of the combined classifier in decision level fusion. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 2539-2546.	6.3	64
120	Spectral and spatial classification of hyperspectral data using SVMs and morphological profiles. , 2007, , .		64
121	Hyperspectral Image Denoising Using First Order Spectral Roughness Penalty in Wavelet Domain. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2458-2467.	4.9	63
122	Novel Adaptive Histogram Trend Similarity Approach for Land Cover Change Detection by Using Bitemporal Very-High-Resolution Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2019, 57, 9554-9574.	6.3	63
123	Unsupervised methods for the classification of hyperspectral images with low spatial resolution. Pattern Recognition, 2013, 46, 1556-1568.	8.1	61
124	Hyperspectral Data Classification Using Extended Extinction Profiles. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 1641-1645.	3.1	61
125	Class-Specific Sparse Multiple Kernel Learning for Spectral-Spatial Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 7351-7365.	6.3	60
126	Remotely sensed big data: evolution in model development for information extraction [point of view]. Proceedings of the IEEE, 2019, 107, 2294-2301.	21.3	60



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127	Joint bilateral filtering and spectral similarity-based sparse representation: A generic framework for effective feature extraction and data classification in hyperspectral imaging. Pattern Recognition, 2018, 77, 316-328.	8.1	59
128	Model-Based Satellite Image Fusion. IEEE Transactions on Geoscience and Remote Sensing, 2008, 46, 1336-1346.	6.3	58
129	Integration of Segmentation Techniques for Classification of Hyperspectral Images. IEEE Geoscience and Remote Sensing Letters, 2014, 11, 342-346.	3.1	58
130	Random-Walker-Based Collaborative Learning for Hyperspectral Image Classification. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 212-222.	6.3	58
131	Iterative Training Sample Expansion to Increase and Balance the Accuracy of Land Classification From VHR Imagery. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 139-150.	6.3	57
132	Gaussian Pyramid Based Multiscale Feature Fusion for Hyperspectral Image Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2018, 11, 3312-3324.	4.9	56
133	Extended Random Walker for Shadow Detection in Very High Resolution Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 867-876.	6.3	55
134	Classification of hyperspectral data using extended attribute profiles based on supervised and unsupervised feature extraction techniques. International Journal of Image and Data Fusion, 2012, 3, 269-298.	1.7	54
135	Scheduling-Guided Automatic Processing of Massive Hyperspectral Image Classification on Cloud Computing Architectures. IEEE Transactions on Cybernetics, 2021, 51, 3588-3601.	9.5	54
136	Multiple Morphological Profiles From Multicomponent-Base Images for Hyperspectral Image Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 4653-4669.	4.9	53
137	Random forest classification of multisource remote sensing and geographic data. , 0, , .		52
138	Set-to-Set Distance-Based Spectralâ€“Spatial Classification of Hyperspectral Images. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 7122-7134.	6.3	52
139	Adaptive Markov Random Fields for Joint Unmixing and Segmentation of Hyperspectral Images. IEEE Transactions on Image Processing, 2013, 22, 5-16.	9.8	51
140	Adaptive Spectralâ€“Spatial Compression of Hyperspectral Image With Sparse Representation. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 671-682.	6.3	51
141	Multisource remote sensing data classification based on consensus and pruning. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 932-936.	6.3	49
142	Hyperspectral image denoising using 3D wavelets. , 2012, , .		49
143	A Study on the Effectiveness of Different Independent Component Analysis Algorithms for Hyperspectral Image Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 2183-2199.	4.9	47
144	Ensemble Classification Algorithm for Hyperspectral Remote Sensing Data. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 762-766.	3.1	46

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145	MTF-Based Deblurring Using a Wiener Filter for CS and MRA Pansharpening Methods. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 2255-2269.	4.9	46
146	Post-Processing Approach for Refining Raw Land Cover Change Detection of Very High-Resolution Remote Sensing Images. Remote Sensing, 2018, 10, 472.	4.0	46
147	Classification of hyperspectral data from urban areas using morphological preprocessing and independent component analysis. , 0, , .		45
148	Glaucoma Filtration Surgery and Retinal Oxygen Saturation. , 2009, 50, 5247.		45
149	Morphological Profiles Based on Differently Shaped Structuring Elements for Classification of Images With Very High Spatial Resolution. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 4644-4652.	4.9	45
150	Oil Spill Detection via Multitemporal Optical Remote Sensing Images: A Change Detection Perspective. IEEE Geoscience and Remote Sensing Letters, 2017, 14, 324-328.	3.1	45
151	Decolorization-Based Hyperspectral Image Visualization. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 4346-4360.	6.3	44
152	Deep Hashing Learning for Visual and Semantic Retrieval of Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2021, 59, 9661-9672.	6.3	43
153	Almost translation invariant wavelet transformations for speckle reduction of sar images. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 2404-2408.	6.3	42
154	Deep TEC: Deep Transfer Learning with Ensemble Classifier for Road Extraction from UAV Imagery. Remote Sensing, 2020, 12, 245.	4.0	42
155	Segmentation and Classification of Hyperspectral Data using Watershed. , 2008, , .		41
156	Advances in Very-High-Resolution Remote Sensing [Scanning the Issue]. Proceedings of the IEEE, 2013, 101, 566-569.	21.3	40
157	Mapping Urban Areas in China Using Multisource Data With a Novel Ensemble SVM Method. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 4258-4273.	6.3	40
158	Kernel Principal Component Analysis for Feature Reduction in Hyperspectrale Images Analysis. , 2006, , .		39
159	Automatic Extraction of Ellipsoidal Features for Planetary Image Registration. IEEE Geoscience and Remote Sensing Letters, 2012, 9, 95-99.	3.1	39
160	Generalized Differential Morphological Profiles for Remote Sensing Image Classification. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 1736-1751.	4.9	39
161	Hyperspectral Image Denoising With Group Sparse and Low-Rank Tensor Decomposition. IEEE Access, 2018, 6, 1380-1390.	4.2	38
162	Object-Oriented Key Point Vector Distance for Binary Land Cover Change Detection Using VHR Remote Sensing Images. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 6524-6533.	6.3	38

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163	Simple Multiscale UNet for Change Detection With Heterogeneous Remote Sensing Images. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	3.1	38
164	Retrieval of the Height of Buildings From WorldView-2 Multi-Angular Imagery Using Attribute Filters and Geometric Invariant Moments. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2012, 5, 71-79.	4.9	37
165	On the influence of feature reduction for the classification of hyperspectral images based on the extended morphological profile. International Journal of Remote Sensing, 2010, 31, 5921-5939.	2.9	36
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