

Andrea Garzelli

List of Publications by Year in descending order

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152
papers

6,400
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186265

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h-index

144013

57
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156
all docs

156
docs citations

156
times ranked

2594
citing authors

#	ARTICLE	IF	CITATIONS
1	A dark target Kalman filter algorithm for aerosol property retrievals in urban environment using multispectral images. Urban Climate, 2022, 43, 101135.	5.7	7
2	Full-Resolution Quality Assessment of Pansharpening: Theoretical and hands-on approaches. IEEE Geoscience and Remote Sensing Magazine, 2022, 10, 168-201.	9.6	26
3	Advantages of Nonlinear Intensity Components for Contrast-Based Multispectral Pansharpening. Remote Sensing, 2022, 14, 3301.	4.0	5
4	A Benchmarking Protocol for Pansharpening: Dataset, Preprocessing, and Quality Assessment. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 6102-6118.	4.9	67
5	A New Benchmark Based on Recent Advances in Multispectral Pansharpening: Revisiting Pansharpening With Classical and Emerging Pansharpening Methods. IEEE Geoscience and Remote Sensing Magazine, 2021, 9, 53-81.	9.6	175
6	Performance of pansharpening methods varying with input data formats. , 2021, , .		1
7	Large-Scale Monitoring of New Built-Up Areas from Joint Use of Sentinel-1/2 Images. , 2021, , .		2
8	Reproducibility of Pansharpening Methods and Quality Indexes versus Data Formats. Remote Sensing, 2021, 13, 4399.	4.0	6
9	Comparison of Machine Learning Methods Applied to SAR Images for Forest Classification in Mediterranean Areas. Remote Sensing, 2020, 12, 369.	4.0	39
10	HEAD: a robust high-resolution satellite image-based aerosol optical depth retrieval algorithm in the blue wavelength range using Kalman filters. , 2020, , .		1
11	Impact of a spatial decorrelation of the noise on the estimation accuracy of temporal changes in the scene from a couple of single-look SAR images. , 2020, , .		3
12	GAN generation of synthetic multispectral satellite images. , 2020, , .		19
13	Automatic Fine Alignment of Multispectral and Panchromatic Images. , 2020, , .		1
14	Fast Reproducible Pansharpening Based on Instrument and Acquisition Modeling: AWLP Revisited. Remote Sensing, 2019, 11, 2315.	4.0	49
15	Reproducibility of Spectral and Radiometric Normalized Similarity Indices for Multiband Images. , 2019, , .		0
16	Geometrically Accurate Change Mapping From Vhr Sar Images. , 2019, , .		6
17	Fast multispectral pansharpening based on a hyper-ellipsoidal color space. , 2019, , .		2
18	Monitoring of changes in vegetation status through integration of time series of hypersharpened Sentinel-2 red-edge bands and information-theoretic textural features of Sentinel-1 SAR backscatter. , 2019, , .		1

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19	Change Detection in Multitemporal Images Through Single- and Multi-scale Approaches. <i>Signals and Communication Technology</i> , 2018, , 325-355.	0.5	5
20	Spatial Consistency for Full-Scale Assessment of Pansharpening. , 2018, , .		15
21	Urban Footprint from VHR SAR Images: Toward a Fully Operational Procedure. , 2018, , .		1
22	Multispectral Pansharpening with Radiative Transfer-Based Detail-Injection Modeling for Preserving Changes in Vegetation Cover. <i>Remote Sensing</i> , 2018, 10, 1308.	4.0	38
23	Blind Correction of Local Misalignments Between Multispectral and Panchromatic Images. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2018, 15, 1625-1629.	3.1	15
24	Efficient nonparametric extraction of urban footprint from VHR SAR images. , 2018, , .		1
25	High-resolution satellite aerosol optical depth retrieval and its variability over highly industrialized hotspots in the Po Valley, Italy. , 2018, , .		1
26	Deployment of pansharpening for correction of local misalignments between MS and Pan. , 2018, , .		0
27	Intersensor Statistical Matching for Pansharpening: Theoretical Issues and Practical Solutions. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017, 55, 4682-4695.	6.3	66
28	Sensitivity of Pansharpening Methods to Temporal and Instrumental Changes Between Multispectral and Panchromatic Data Sets. <i>IEEE Transactions on Geoscience and Remote Sensing</i> , 2017, 55, 308-319.	6.3	49
29	Haze Correction for Contrast-Based Multispectral Pansharpening. <i>IEEE Geoscience and Remote Sensing Letters</i> , 2017, 14, 2255-2259.	3.1	86
30	Robust change detection from COSMO-SkyMed and RADARSAT-2 multitemporal images. , 2017, , .		0
31	Optimizing SAR change detection based on log-ratio features. , 2017, , .		6
32	A Support Vector Machine Hydrometeor Classification Algorithm for Dual-Polarization Radar. <i>Atmosphere</i> , 2017, 8, 134.	2.3	15
33	Computational efficient unsupervised coastline detection from single-polarization 1-look SAR images of complex coastal environments. , 2017, , .		1
34	Benefits of haze removal for modulation-based pansharpening. , 2017, , .		1
35	A Review of Image Fusion Algorithms Based on the Super-Resolution Paradigm. <i>Remote Sensing</i> , 2016, 8, 797.	4.0	73
36	Leveraging Multiscale Hessian-Based Enhancement With a Novel Exudate Inpainting Technique for Retinal Vessel Segmentation. <i>IEEE Journal of Biomedical and Health Informatics</i> , 2016, 20, 1129-1138.	6.3	105

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37	Spatial Methods for Multispectral Pansharpening: Multiresolution Analysis Demystified. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 2563-2576.	6.3	95
38	Automatic image classification for the urinoculture screening. Computers in Biology and Medicine, 2016, 70, 12-22.	7.0	20
39	A segmentation-based approach to SAR change detection and mapping. Proceedings of SPIE, 2016, , .	0.8	2
40	ABLE: An Automated Bacterial Load Estimator for the Urinoculture Screening. , 2016, , .		3
41	Building height retrieval from WorldView-2 multi-angular images. , 2015, , .		0
42	A fast and reliable change detection feature from bi-temporal amplitude SAR images. Proceedings of SPIE, 2015, , .	0.8	0
43	OPTIMA: advanced methods for the analysis, integration and optimization of PRISMA mission products. Proceedings of SPIE, 2015, , .	0.8	0
44	Large area robust identification of snow cover from multitemporal COSMO-SkyMed images. , 2015, , .		0
45	Hydrometeor classification for X-band dual polarization radar on-board civil aircrafts. , 2015, , .		1
46	A Critical Comparison Among Pansharpening Algorithms. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 2565-2586.	6.3	943
47	Are spectral or spatial methods better for pansharpening? An evaluation for four sample methods based on spatial modulation of pixel spectra. , 2015, , .		0
48	Pansharpening of Multispectral Images Based on Nonlocal Parameter Optimization. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 2096-2107.	6.3	98
49	A critical comparison of pansharpening algorithms. , 2014, , .		25
50	Efficient MMSE pansharpening based on non-local optimization. , 2014, , .		0
51	Full scale assessment of pansharpening methods and data products. Proceedings of SPIE, 2014, , .	0.8	13
52	Snow cover area identification by using a change detection method applied to COSMO-SkyMed images. Journal of Applied Remote Sensing, 2014, 8, 084684.	1.3	6
53	Pansharpening of hyperspectral images: a critical analysis of requirements and assessment on simulated PRISMA data. , 2013, , .		5
54	Nonparametric Change Detection in Multitemporal SAR Images Based on Mean-Shift Clustering. IEEE Transactions on Geoscience and Remote Sensing, 2013, 51, 2022-2031.	6.3	74

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55	Ndsa measurements between two counter rotating leo satellites: Performance evaluation at global scale in Ku, K and M bands. , 2013, , .		0
56	Detail-preserving change detection from amplitude SAR images. , 2013, , .		2
57	Development and validation of multitemporal image analysis methodologies for multirisk monitoring of critical structures and infrastructures. , 2012, , .		2
58	Robust unsupervised nonparametric change detection of SAR images. , 2012, , .		4
59	Advantages of Laplacian pyramids over "À trous" wavelet transforms for pansharpening of multispectral images. Proceedings of SPIE, 2012, , .	0.8	16
60	Screening of Spotlight CSK images for large area monitoring and detection of infrastructures. , 2012, , .		0
61	Fast classified pansharpening with spectral and spatial distortion optimization. , 2012, , .		1
62	A robust change detection feature for Cosmo-SkyMed detected SAR images. , 2011, , .		6
63	Effects of multitemporal scene changes on pansharpening fusion. , 2011, , .		6
64	Effects of the Spatial Enhancement of Hyperspectral Images on the Distribution of Spectral Classes. , 2011, , 301-327.		1
65	A Theoretical Analysis of the Effects of Aliasing and Misregistration on Pansharpened Imagery. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 446-453.	10.8	111
66	Multispectral pansharpening based on pixel modulation: state of the art and new results. Proceedings of SPIE, 2011, , .	0.8	3
67	Analysis of the Effects of Pansharpening in Change Detection on VHR Images. IEEE Geoscience and Remote Sensing Letters, 2010, 7, 53-57.	3.1	105
68	A theoretical evaluation of aliasing and misregistration effects on pansharpening methods. Proceedings of SPIE, 2010, , .	0.8	0
69	Recent achievements in lossless compression of hyperspectral data. , 2010, , .		0
70	Fetch limited sea scattering spectral model for HF-OTH skywave radar. , 2010, , .		0
71	Hyperspectral pansharpening based on modulation of pixel spectra. , 2010, , .		8
72	On the effects of pan-sharpening to target detection. , 2009, , .		6

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73	Target Detection With Semisupervised Kernel Orthogonal Subspace Projection. IEEE Transactions on Geoscience and Remote Sensing, 2009, 47, 3822-3833.	6.3	50
74	Hypercomplex Quality Assessment of Multi/Hyperspectral Images. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 662-665.	3.1	232
75	Semi-supervised Kernel Target Detection in Hyperspectral Images. , 2009, , .		0
76	Fast weighted least squares pan-sharpening. Proceedings of SPIE, 2009, , .	0.8	1
77	Optimal MMSE Pan Sharpening of Very High Resolution Multispectral Images. IEEE Transactions on Geoscience and Remote Sensing, 2008, 46, 228-236.	6.3	434
78	Weighted Least Squares Pan-Sharpener of Very High Resolution Multispectral Images. , 2008, , .		6
79	Semi-Supervised Kernel Orthogonal Subspace Projection. , 2008, , .		3
80	Multispectral and Panchromatic Data Fusion Assessment Without Reference. Photogrammetric Engineering and Remote Sensing, 2008, 74, 193-200.	0.6	625
81	Information-theoretic multitemporal features for change analysis from SAR images. Proceedings of SPIE, 2008, , .	0.8	2
82	Low-complexity and error-resilient hyperspectral image compression based on distributed source coding. Proceedings of SPIE, 2008, , .	0.8	1
83	Fusion of multispectral and panchromatic images as an optimisation problem. , 2008, , 223-250.		7
84	Robust change analysis of SAR data through information-theoretic multitemporal features. , 2007, , .		8
85	A new method for quality assessment of hyperspectral images. , 2007, , .		2
86	Introducing training and parameter tuning for KOSP classification of hyperspectral images. Proceedings of SPIE, 2007, , .	0.8	2
87	Spatial enhancement of hyperion hyperspectral data through ALI panchromatic image. , 2007, , .		14
88	Remote sensing image fusion using the curvelet transform. Information Fusion, 2007, 8, 143-156.	19.1	653
89	Panchromatic sharpening of remote sensing images using a multiscale Kalman filter. Pattern Recognition, 2007, 40, 3568-3577.	8.1	43
90	Context-Sensitive Pan-Sharpener of Multispectral Images. , 2007, , 121-125.		4

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91	PAN-sharpening of very high resolution multispectral images using genetic algorithms. International Journal of Remote Sensing, 2006, 27, 3273-3292.	2.9	51
92	Information-Theoretic Assessment of Fusion of Multispectral and Panchromatic Images. , 2006, , .		3
93	Fusion of Panchromatic and Multispectral Images by Genetic Algorithms. , 2006, , .		27
94	Comparison of kernel-based methods for spectral signature detection and classification of hyperspectral images. , 2006, , .		1
95	A New Method for MS + Pan Image Fusion Assessment Without Reference. , 2006, , .		8
96	Can multiresolution fusion techniques improve classification accuracy?. , 2006, , .		16
97	<title>Near-lossless compression of hyperspectral data through classified spectral prediction</title>. , 2005, , .		1
98	<title>Exploiting the distributed source coding paradigm for low-complexity compression of hyperspectral images</title>. , 2005, 5915, 120.		0
99	Fusion of microwave and optical images through intensity modulation by SAR textural features. , 2005, 5980, 99.		0
100	Interband structure modeling for Pan-sharpening of very high-resolution multispectral images. Information Fusion, 2005, 6, 213-224.	19.1	84
101	<title>Digital watermarking of 3D meshes</title>. , 2004, , .		6
102	Landsat ETM+ and SAR image fusion based on generalized intensity Modulation. IEEE Transactions on Geoscience and Remote Sensing, 2004, 42, 2832-2839.	6.3	113
103	A Global Quality Measurement of Pan-Sharpended Multispectral Imagery. IEEE Geoscience and Remote Sensing Letters, 2004, 1, 313-317.	3.1	502
104	Quicklook coherence estimation from multilook SAR imagery. , 2004, , .		0
105	Spectral information extraction from very high resolution images through multiresolution fusion. , 2004, , .		1
106	Land cover classification of built-up areas through enhanced fuzzy nearest-mean reclustering of textural features from X- and C-band polarimetric SAR data. , 2004, , .		3
107	Integration of Landsat and SAR images based on intensity modulation. , 2004, , .		1
108	Interband detail modeling for multiresolution fusion of very high resolution multispectral images. , 2004, , .		3

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109	Coherence estimation from multilook incoherent sar imagery. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 2531-2539.	6.3	39
110	Interband structure modeling for oversampled multiresolution analysis-based Pan-sharpening of very high resolution multispectral images. , 2003, , .		2
111	<title>SAR image analysis of the sea surface by local fractal dimension estimation</title>. , 2003, , .		1
112	Performance assessment of voice and video transmission in a simulated UMTS environment. , 2003, 4793, 119.		0
113	Context-driven fusion of high spatial and spectral resolution images based on oversampled multiresolution analysis. IEEE Transactions on Geoscience and Remote Sensing, 2002, 40, 2300-2312.	6.3	679
114	<title>Improving wireless video communication without feedback information</title>. , 2001, , .		0
115	Error resilient transmission of H. 263 video for mobile communications. European Transactions on Telecommunications, 2001, 12, 181-187.	1.2	0
116	Multi-resolution estimation of fractal dimension from noisy images. Journal of Electronic Imaging, 2001, 10, 339.	0.9	9
117	Improved group-of-block synchronization for robust transmission of H.263 video over slow-fading channels. Journal of Electronic Imaging, 2001, 10, 1016.	0.9	0
118	<title>Improving wavelet-based merging of panchromatic and multispectral images by contextual information</title>. , 2001, , .		12
119	Wavelet and multirate denoising for signal-dependent noise. , 2000, , .		1
120	<title>Comparative analysis of H.263 resilience techniques for H.223-based video transmission over slow-fading channels</title>. , 2000, 4122, 68.		0
121	Sensor modeling and data processing for airport simulation. , 2000, , .		2
122	Two-layer hierarchical coding for MPEG-2 video. Electronics Letters, 2000, 36, 1696.	1.0	1
123	<title>Multiresolution estimation of fractal dimension from images affected by signal-dependent noise</title>. , 1999, 3813, 251.		0
124	Classification of polarimetric SAR images using adaptive neighbourhood structures. International Journal of Remote Sensing, 1999, 20, 1669-1675.	2.9	12
125	<title>Unequal error protection for H.263 video over indoor DECT channel</title>. , 1999, 3814, 43.		0
126	Fractal analysis and validation of a sea-surface fractal model for SAR imagery. , 1999, 3868, 612.		1

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127	Decimated geometric filter for edge-preserving smoothing of non-white image noise. Pattern Recognition Letters, 1998, 19, 89-96.	4.2	7
128	<title>Multiresolution approach to oil spill detection in ERS-1 SAR images</title>. , 1998, , .		3
129	Evaluating time correlation of speckle in ERS-1 SAR images. , 1998, , .		2
130	<title>Real-time error concealment for MPEG2-compatible data-partitioning scalable video codecs</title>. , 1998, , .		0
131	<title>Adaptive two-layer MPEG-2 codec for video transmission over ATM</title>. , 1997, 3164, 419.		0
132	<title>Nonstationary parametric models of a VBR coder for packet video on ATM networks</title>. , 1997, , .		0
133	Segmentation of multispectral SAR images for archaeological studies. , 1996, 2818, 210.		1
134	<title>Adaptive segmentation of multiband polarimetric SAR images for the identification of archaeological resources</title>. , 1996, 2960, 148.		0
135	<title>Intraframe compression of radar image sequences for ship traffic control applications</title>. , 1996, , .		0
136	<title>Multiscale geometric filter based on the wavelet transform</title>. , 1996, , .		1
137	Demodulation and decoding for diversity mobile radio systems. IET Communications, 1995, 142, 315.	1.0	0
138	Detection of ship wakes in SAR images using morphological operators. Computers and Geosciences, 1995, 21, 1201-1203.	4.2	4
139	Radar image processing for ship-traffic control. Image and Vision Computing, 1995, 13, 119-128.	4.5	8
140	A new selective ARQ scheme with a finite buffer. European Transactions on Telecommunications, 1995, 6, 365-373.	1.2	0
141	<title>Minimum distortion quantizer for fixed-rate 64-subband video coding</title>. , 1995, , .		0
142	New modified stop-and-wait ARQ protocols for mobile communications. Wireless Personal Communications, 1994, 1, 117-126.	2.7	6
143	A coarse-to-fine algorithm for fast median filtering of image data with a huge number of levels. Signal Processing, 1994, 39, 33-41.	3.7	8
144	Some digital receivers for the GSM pan-European cellular communication system. IET Communications, 1994, 141, 168.	1.0	11

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145	Complete processing system that uses fuzzy logic for ship detection in SAR images. IET Radar, Sonar & Navigation, 1994, 141, 181.	2.1	5
146	Simplified Viterbi processors for the GSM Pan-European cellular communication system. IEEE Transactions on Vehicular Technology, 1994, 43, 870-878.	6.3	30
147	Type-II hybrid ARQ protocol using concatenated codes. IEE Proceedings, Part I: Communications, Speech and Vision, 1993, 140, 346.	0.2	0
148	New diversity receiver for mobile communications. Electronics Letters, 1993, 29, 2168.	1.0	0
149	Generalised stop-and-wait protocol. Electronics Letters, 1992, 28, 861.	1.0	6
150	Context-driven image fusion of multispectral and panchromatic data based on a redundant wavelet representation. , 0, , .		5
151	An MTF-based spectral distortion minimizing model for pan-sharpening of very high resolution multispectral images of urban areas. , 0, , .		93
152	Multiresolution fusion of multispectral and panchromatic images through the curvelet transform. , 0, , .		12