

# Bruno Aiazzi

## List of Publications by Year in descending order

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145  
papers

5,362  
citations

186265

28  
h-index

161849

54  
g-index

149  
all docs

149  
docs citations

149  
times ranked

1925  
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance of pansharpening methods varying with input data formats. , 2021, , .		1
2	Reproducibility of Pansharpening Methods and Quality Indexes versus Data Formats. Remote Sensing, 2021, 13, 4399.	4.0	6
3	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
4	Automatic Fine Alignment of Multispectral and Panchromatic Images. , 2020, , .		1
5	An Investigation on the Prime and Twin Prime Number Functions by Periodical Binary Sequences and Symmetrical Runs in a Modified Sieve Procedure. Symmetry, 2019, 11, 775.	2.2	3
6	Influence of the System MTF on the On-Board Lossless Compression of Hyperspectral Raw Data. Remote Sensing, 2019, 11, 791.	4.0	7
7	Reproducibility of Spectral and Radiometric Normalized Similarity Indices for Multiband Images. , 2019, , .		0
8	Change Detection in Multitemporal Images Through Single- and Multi-scale Approaches. Signals and Communication Technology, 2018, , 325-355.	0.5	5
9	Multispectral Pansharpening with Radiative Transfer-Based Detail-Injection Modeling for Preserving Changes in Vegetation Cover. Remote Sensing, 2018, 10, 1308.	4.0	38
10	Blind Correction of Local Misalignments Between Multispectral and Panchromatic Images. IEEE Geoscience and Remote Sensing Letters, 2018, 15, 1625-1629.	3.1	15
11	Deployment of pansharpening for correction of local misalignments between MS and Pan. , 2018, , .		0
12	Sensitivity of Pansharpening Methods to Temporal and Instrumental Changes Between Multispectral and Panchromatic Data Sets. IEEE Transactions on Geoscience and Remote Sensing, 2017, 55, 308-319.	6.3	49
13	Spatial Methods for Multispectral Pansharpening: Multiresolution Analysis Demystified. IEEE Transactions on Geoscience and Remote Sensing, 2016, 54, 2563-2576.	6.3	95
14	OPTIMA: advanced methods for the analysis, integration and optimization of PRISMA mission products. Proceedings of SPIE, 2015, , .	0.8	0
15	Large area robust identification of snow cover from multitemporal COSMO-SkyMed images. , 2015, , .		0
16	Hyper-Sharpener: A First Approach on SIM-GA Data. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2015, 8, 3008-3024.	4.9	170
17	Full-Scale Assessment of Pansharpening Through Polynomial Fitting of Multiscale Measurements. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 6344-6355.	6.3	36
18	Hyper-sharpening of hyperspectral data: A first approach. , 2014, , .		2

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19	Full scale assessment of pansharpening methods and data products. Proceedings of SPIE, 2014, , .	0.8	13
20	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
21	SAR Image Classification Through Information-Theoretic Textural Features, MRF Segmentation, and Object-Oriented Learning Vector Quantization. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2014, 7, 1116-1126.	4.9	38
22	Pansharpening of hyperspectral images: a critical analysis of requirements and assessment on simulated PRISMA data. , 2013, , .		5
23	Bi-cubic interpolation for shift-free pan-sharpening. ISPRS Journal of Photogrammetry and Remote Sensing, 2013, 86, 65-76.	11.1	62
24	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
25	Information-theoretic assessment of on-board near-lossless compression of hyperspectral data. Journal of Applied Remote Sensing, 2013, 7, 074597.	1.3	1
26	Spectral Distortion in Lossy Compression of Hyperspectral Data. Journal of Electrical and Computer Engineering, 2012, 2012, 1-8.	0.9	25
27	Multiresolution map despeckling of COSMO-SkyMed images. , 2012, , .		0
28	Development and validation of multitemporal image analysis methodologies for multirisk monitoring of critical structures and infrastructures. , 2012, , .		2
29	Robust unsupervised nonparametric change detection of SAR images. , 2012, , .		4
30	Advantages of Laplacian pyramids over "Ã trous" wavelet transforms for pansharpening of multispectral images. Proceedings of SPIE, 2012, , .	0.8	16
31	Influence of spatial resolution on pan-sharpening results. , 2012, , .		4
32	Fast classified pansharpening with spectral and spatial distortion optimization. , 2012, , .		1
33	An experimental setup for multiresolution despeckling of COSMO-SkyMed image products. Proceedings of SPIE, 2012, , .	0.8	1
34	Unsupervised estimation of signal-dependent CCD camera noise. Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.7	13
35	Quality Issues for Compression of Hyperspectral Imagery Through Spectrally Adaptive DPCM. , 2012, , 115-147.		3
36	An unsupervised method for quality assessment of despeckling: an evaluation on COSMO-SkyMed data. Proceedings of SPIE, 2011, , .	0.8	3

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37	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
38	Multispectral pansharpening based on pixel modulation: state of the art and new results. Proceedings of SPIE, 2011, , .	0.8	3
39	A theoretical evaluation of aliasing and misregistration effects on pansharpening methods. Proceedings of SPIE, 2010, , .	0.8	0
40	Recent achievements in lossless compression of hyperspectral data. , 2010, , .		0
41	A Comparison Between Global and Context-Adaptive Pansharpening of Multispectral Images. IEEE Geoscience and Remote Sensing Letters, 2009, 6, 302-306.	3.1	168
42	Lossless Compression of Hyperspectral Images Using Multiband Lookup Tables. IEEE Signal Processing Letters, 2009, 16, 481-484.	3.6	19
43	Signal-dependent noise modelling and estimation of new-generation imaging spectrometers. , 2009, , .		29
44	Lossless Compression of Hyperspectral Imagery Via Lookup Tables and Classified Linear Spectral Prediction. , 2008, , .		0
45	Satellite-based enhancement of archaeological marks through data fusion techniques. Proceedings of SPIE, 2008, , .	0.8	2
46	Multispectral and Panchromatic Data Fusion Assessment Without Reference. Photogrammetric Engineering and Remote Sensing, 2008, 74, 193-200.	0.6	625
47	Information-theoretic multitemporal features for change analysis from SAR images. Proceedings of SPIE, 2008, , .	0.8	2
48	Image fusion through multiresolution oversampled decompositions. , 2008, , 27-66.		13
49	Robust change analysis of SAR data through information-theoretic multitemporal features. , 2007, , .		8
50	<title>An information-theoretic feature for identifying changes in multitemporal SAR images: an evaluation for the detection of flooded areas</title>. , 2007, , .		2
51	Assessment of quality parameters for a new-generation hyperspectral imager. , 2007, , .		0
52	Interband distortion allocation in lossy compression of hyperspectral imagery: impact on global distortion metrics and discrimination of materials. , 2007, , .		0
53	Crisp and Fuzzy Adaptive Spectral Predictions for Lossless and Near-Lossless Compression of Hyperspectral Imagery. IEEE Geoscience and Remote Sensing Letters, 2007, 4, 532-536.	3.1	45
54	Improving Component Substitution Pansharpening Through Multivariate Regression of MS \$+\$Pan Data. IEEE Transactions on Geoscience and Remote Sensing, 2007, 45, 3230-3239.	6.3	862

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55	Context-Sensitive Pan-Sharpener of Multispectral Images. , 2007, , 121-125.		4
56	Quality Assessment of Remote-Sensing Multi-Band Optical Images. , 2007, , 355-375.		0
57	Information-Theoretic Assessment of Fusion of Multispectral and Panchromatic Images. , 2006, , .		3
58	Near-Lossless Compression of Hyperspectral Imagery Through Crisp/Fuzzy Adaptive DPCM. , 2006, , 147-177.		5
59	Enhanced Gram-Schmidt Spectral Sharpening Based on Multivariate Regression of MS and Pan Data. , 2006, , .		21
60	Automated Content Extraction from SAR Data. , 2006, , .		1
61	A modified band add-on spectral angle mapper (BAO-SAM) distance metrics: a new tool to evaluate lossy compression of hyperspectral imagery. , 2006, , .		0
62	MTF-tailored Multiscale Fusion of High-resolution MS and Pan Imagery. Photogrammetric Engineering and Remote Sensing, 2006, 72, 591-596.	0.6	680
63	Distortion Characterization of Compressed Hyperspectral Imagery through Band Add-On Modified Spectral Angle Mapper Distance Metrics. , 2006, , .		0
64	A New Method for MS + Pan Image Fusion Assessment Without Reference. , 2006, , .		8
65	<title>Near-lossless compression of hyperspectral data through classified spectral prediction</title>. , 2005, , .		1
66	Virtually Lossless Compression of Astrophysical Images. Eurasip Journal on Advances in Signal Processing, 2005, 2005, 1.	1.7	8
67	<title>Virtually lossless compression of scientific data: an application to astrophysical images</title>. , 2005, , .		0
68	Fusion of microwave and optical images through intensity modulation by SAR textural features. , 2005, 5980, 99.		0
69	Filtering of Interferometric SAR Phase Images as a Fuzzy Matching-Pursuit Blind Estimation. Eurasip Journal on Advances in Signal Processing, 2005, 2005, 1.	1.7	6
70	Information-theoretic assessment of ASTER super-spectral imagery. , 2005, , .		2
71	Information-theoretic assessment of multi-dimensional signals. Signal Processing, 2005, 85, 903-916.	3.7	9
72	Information-theoretic heterogeneity measurement for SAR imagery. IEEE Transactions on Geoscience and Remote Sensing, 2005, 43, 619-624.	6.3	40

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73	Spatial resolution enhancement of ASTER thermal bands. , 2005, , .		19
74	<title>Advanced methods for onboard lossless compression of hyperspectral data</title>. , 2004, , .		3
75	<title>Tradeoff between radiometric and spectral distortion in lossy compression of hyperspectral imagery</title>. , 2004, 5208, 141.		3
76	Information-theoretic textural features of SAR images: an assessment for land cover classification. , 2004, , .		0
77	Quicklook coherence estimation from multilook SAR imagery. , 2004, , .		0
78	Fuzzy predictor calculation for on-board lossless compression of hyperspectral imagery by adaptive DPCM. , 2004, 5238, 266.		0
79	Spectral information extraction from very high resolution images through multiresolution fusion. , 2004, , .		1
80	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
81	Interband detail modeling for multiresolution fusion of very high resolution multispectral images. , 2004, , .		3
82	Image fusion—the ARSIS concept and some successful implementation schemes. ISPRS Journal of Photogrammetry and Remote Sensing, 2003, 58, 4-18.	11.1	299
83	Coherence estimation from multilook incoherent sar imagery. IEEE Transactions on Geoscience and Remote Sensing, 2003, 41, 2531-2539.	6.3	39
84	Land cover classification of urban and sub-urban areas via fuzzy nearest-mean reclustering of SAR features. , 2003, , .		1
85	Lossy compression of multispectral remote-sensing images through multiresolution data fusion techniques. , 2003, , .		4
86	Interband structure modeling for oversampled multiresolution analysis-based Pan-sharpening of very high resolution multispectral images. , 2003, , .		2
87	Effects of nonuniform spectral sampling in hyperspectral sensors. , 2003, , .		0
88	Quality issues for hyperspectral data dissemination: radiometric and spectral distortions in lossy compression. , 2003, , .		0
89	<title>Context modeling for joint spectral and radiometric distortion minimization in pyramid-based fusion of MS and P image data</title>. , 2003, , .		3
90	NEAR-LOSSLESS COMPRESSION OF REMOTE-SENSING DATA. , 2003, , 503-532.		1

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91	Near-lossless image compression by adaptive prediction: new developments and comparison of algorithms. , 2003, 4793, 1.		0
92	Fuzzy nearest mean reclustering of SAR pixel features: assessments on land use classification. , 2003, 4883, 113.		0
93	Context modeling for near-lossless image coding. IEEE Signal Processing Letters, 2002, 9, 77-80.	3.6	32
94	<title>Near-lossless compression of multi/hyperspectral image data through a fuzzy-matching-pursuit interband prediction</title>. , 2002, , .		5
95	Estimating noise and information of multispectral imagery. Optical Engineering, 2002, 41, 656.	1.0	40
96	<title>New trends in despeckling: undecimated-wavelet shrinkage and fuzzy matching-pursuits estimation</title>. , 2002, , .		0
97	<title>Blind estimation of interferometric SAR phase images through fuzzy matching-pursuits</title>. , 2002, , .		0
98	Fuzzy logic-based matching pursuits for lossless predictive coding of still images. IEEE Transactions on Fuzzy Systems, 2002, 10, 473-483.	9.8	24
99	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
100	Near-lossless image compression by relaxation-labelled prediction. Signal Processing, 2002, 82, 1619-1631.	3.7	34
101	Information-theoretic assessment of sampled hyperspectral imagers. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 1447-1458.	6.3	42
102	Near-lossless compression of 3-D optical data. IEEE Transactions on Geoscience and Remote Sensing, 2001, 39, 2547-2557.	6.3	84
103	<title>Heterogeneity-driven hybrid denoising</title>. , 2001, 4304, 209.		0
104	<title>Relative error-constrained compression for synthetic aperture radar data</title>. , 2001, , .		0
105	<title>Quality issues in remote sensing image compression: near-lossless coding of optical and microwave data</title>. , 2001, , .		1
106	Multi-resolution estimation of fractal dimension from noisy images. Journal of Electronic Imaging, 2001, 10, 339.	0.9	9
107	<title>Information-theoretic assessment of imaging systems via data compression</title>. , 2001, , .		0
108	<title>Quality issues for archival of ancient documents</title>. , 2000, , .		1

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109	<title>Near-lossless image compression: a key to high-quality data distribution</title>. , 2000, , .		0
110	Wavelet and multirate denoising for signal-dependent noise. , 2000, , .		1
111	<title>Near-lossless compression by relaxation-labeled 3D prediction</title>. , 2000, 4310, 53.		0
112	<title>Lossless image compression by adaptive contextual encoding</title>. , 2000, , .		0
113	<title>Hybrid despeckling filter driven by a novel homogeneity feature</title>. , 2000, , .		2
114	<title>Fuzzy blending of relaxation-labeled predictors for high-performance lossless image compression</title>. , 2000, 3962, 41.		0
115	<title>Wavelet and pyramid techniques for multisensor data fusion: a performance comparison varying with scale ratios</title>. , 1999, , .		24
116	Lossless compression of multi/hyper-spectral imagery based on a 3-D fuzzy prediction. IEEE Transactions on Geoscience and Remote Sensing, 1999, 37, 2287-2294.	6.3	81
117	<title>Multiresolution estimation of fractal dimension from images affected by signal-dependent noise</title>. , 1999, 3813, 251.		0
118	Estimation based on entropy matching for generalized Gaussian PDF modeling. IEEE Signal Processing Letters, 1999, 6, 138-140.	3.6	67
119	<title>Signal-dependent noise modeling for adaptive multiresolution local-statistics filtering</title>. , 1999, , .		3
120	<title>Trends in lossless image compression: adaptive vs. classified prediction and context modeling for entropy coding</title>. , 1999, , .		0
121	<title>Unsupervised assessment and pyramidal filtering of colored speckle</title>. , 1999, , .		2
122	<title>Lossless compression of multispectral images based on a bidirectional spectral prediction</title>. , 1999, , .		1
123	Multiresolution local-statistics speckle filtering based on a ratio Laplacian pyramid. IEEE Transactions on Geoscience and Remote Sensing, 1998, 36, 1466-1476.	6.3	75
124	<title>Fuzzy clustering and soft switching of linear regression models for reversible image compression</title>. , 1998, , .		0
125	<title>Assessment of pyramid-based multisensor image data fusion</title>. , 1998, , .		35
126	Pyramid-based multiresolution adaptive filters for additive and multiplicative image noise. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 1998, 45, 1092-1097.	2.2	18



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127	<title>Reversible compression of 2D and 3D data through a fuzzy linear prediction with context-based arithmetic coding</title>. , 1998, , .		1
128	<title>Multiresolution texture analysis of SAR images</title>. , 1998, , .		0
129	<title>Virtually lossless compression of medical images through classified prediction and context-based arithmetic coding</title>. , 1998, 3653, 1033.		0
130	<title>Lossless image compression based on recursive nonlinear interpolation</title>. , 1997, 3164, 413.		5
131	<title>Pyramid-based multisensor image data fusion</title>. , 1997, , .		4
132	<title>Multifiltering approach to adaptive speckle reduction in textured SAR images</title>. , 1997, , .		2
133	Lossless image compression by quantization feedback in a content-driven enhanced Laplacian pyramid. IEEE Transactions on Image Processing, 1997, 6, 831-843.	9.8	50
134	A pyramid-based error-bounded encoder: An evaluation on X-ray chest images. Signal Processing, 1997, 59, 173-187.	3.7	25
135	<title>Lossless image compression based on a generalized recursive interpolation</title>. , 1996, , .		0
136	<title>Pyramid approach to fusion of Landsat TM and SPOT-PAN data to yield multispectral high-resolution images for environmental archaeology</title>. , 1996, 2960, 153.		2
137	<title>Lossless compression of medical images based on an enhanced generalized multidimensional S-Transform</title>. , 1996, , .		0
138	A reduced Laplacian pyramid for lossless and progressive image communication. IEEE Transactions on Communications, 1996, 44, 18-22.	7.8	40
139	<title>Multiresolution adaptive noise filtering based on Laplacian pyramids</title>. , 1996, , .		3
140	Content-driven pyramid compression of medical images for error-free archival and progressive transmission. European Transactions on Telecommunications, 1995, 6, 301-310.	1.2	1
141	A distributed implementation of fuzzy clustering and switching of linear regression models for lossless compression of imagery and 3D data. , 0, , .		0
142	Quality assessment of decision-driven pyramid-based fusion of high resolution multispectral with panchromatic image data. , 0, , .		12
143	An MTF-based spectral distortion minimizing model for pan-sharpening of very high resolution multispectral images of urban areas. , 0, , .		93
144	SAR image segmentation through information-theoretic heterogeneity features and tree-structured Markov random fields. , 0, , .		5

#	ARTICLE	IF	CITATIONS
145	Low-complexity lossless/near-lossless compression of hyperspectral imagery through classified linear spectral prediction. , 0, , .		8