

# Eduardo B Da Silva

## List of Publications by Year in descending order

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178  
papers

2,932  
citations

394286

19  
h-index

315616

38  
g-index

184  
all docs

184  
docs citations

184  
times ranked

1774  
citing authors

#	ARTICLE	IF	CITATIONS
1	Automatic detection of <i>Aedes aegypti</i> breeding grounds based on deep networks with spatio-temporal consistency. <i>Computers, Environment and Urban Systems</i> , 2022, 93, 101754.	3.3	8
2	Fault detection and classification in oil wells and production/service lines using random forest. <i>Journal of Petroleum Science and Engineering</i> , 2021, 197, 107879.	2.1	44
3	Variational Methods for Machine Learning with Applications to Deep Networks. , 2021, , .		7
4	A Comparative Analysis of Object Detection Metrics with a Companion Open-Source Toolkit. <i>Electronics (Switzerland)</i> , 2021, 10, 279.	1.8	296
5	A fault detector/classifier for closed-ring power generators using machine learning. <i>Reliability Engineering and System Safety</i> , 2021, 212, 107614.	5.1	10
6	Automatic event identification and extraction from daily drilling reports using an expert system and artificial intelligence. <i>Journal of Petroleum Science and Engineering</i> , 2021, 205, 108939.	2.1	11
7	Multimodal soccer highlight identification using a sparse subset of frames integrating long-term sliding windows. <i>Information Sciences</i> , 2021, 578, 702-724.	4.0	4
8	Domain-Transformable Sparse Representation for Anomaly Detection in Moving-Camera Videos. <i>IEEE Transactions on Image Processing</i> , 2020, 29, 1329-1343.	6.0	15
9	A Survey on Performance Metrics for Object-Detection Algorithms. , 2020, , .		464
10	The JPEG Pleno Light Field Coding Standard 4D-Transform Mode: How to Design an Efficient 4D-Native Codec. <i>IEEE Access</i> , 2020, 8, 170807-170829.	2.6	16
11	Toward Visualization and Searching: A Dual-Purpose Video Coding Framework. <i>IEEE Access</i> , 2020, 8, 14860-14874.	2.6	0
12	A morphological approach to the automatic detection of dark fringes of birefringence images obtained in a multipass rheometer. <i>Rheologica Acta</i> , 2020, 59, 177-200.	1.1	0
13	Rate-Distortion Performance and Incremental Transmission Scheme of Compressive Sensed Measurements in Wireless Sensor Networks. <i>Sensors</i> , 2019, 19, 266.	2.1	4
14	Application of Machine Learning to Evaluate Unbalance Severity in Rotating Machines. <i>Mechanisms and Machine Science</i> , 2019, , 144-160.	0.3	6
15	Anomaly detection with a moving camera using multiscale video analysis. <i>Multidimensional Systems and Signal Processing</i> , 2019, 30, 311-342.	1.7	10
16	A visible-light and infrared video database for performance evaluation of video/image fusion methods. <i>Multidimensional Systems and Signal Processing</i> , 2019, 30, 119-143.	1.7	20
17	JPEG Pleno light field coding technologies. , 2019, , .		23
18	Performance analysis of JPEG Pleno light field coding. , 2019, , .		12

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19	Anomaly Detection in Moving-Camera Video Sequences Using Principal Subspace Analysis. IEEE Transactions on Circuits and Systems I: Regular Papers, 2018, 65, 1003-1015.	3.5	15
20	Assessment of radiation dose received by nuclear plant personnel through a video-based surveillance system. Progress in Nuclear Energy, 2018, 103, 51-59.	1.3	1
21	Anomaly detection with a moving camera using spatio-temporal codebooks. Multidimensional Systems and Signal Processing, 2018, 29, 1025-1054.	1.7	13
22	Quality of Experience in a Stereoscopic Multiview Environment. IEEE Transactions on Multimedia, 2018, 20, 1-14.	5.2	11
23	Plenoptic imaging: Representation and processing. , 2018, , 75-111.		9
24	Improved similarity-based modeling for the classification of rotating-machine failures. Journal of the Franklin Institute, 2018, 355, 1913-1930.	1.9	48
25	A Study on the 4D Sparsity of JPEG Pleno Light Fields Using the Discrete Cosine Transform. , 2018, , .		7
26	Moving-Camera Video Surveillance in Cluttered Environments Using Deep Features. , 2018, , .		3
27	A 4D DCT-Based Lenslet Light Field Codec. , 2018, , .		41
28	Fusion of Infrared and Visible-Light Videos Using Motion-Compensated Temporal Sub-Band Decompositions. , 2018, , .		0
29	Recurrent pattern matching based stereo image coding using linear predictors. Multidimensional Systems and Signal Processing, 2017, 28, 1393-1416.	1.7	5
30	Weak Classifier for Density Estimation in Eye Localization and Tracking. IEEE Transactions on Image Processing, 2017, 26, 3410-3424.	6.0	9
31	Detection of abandoned objects using robust subspace recovery with intrinsic video alignment. , 2017, , .		3
32	Online video-based sequence synchronization for moving camera object detection. , 2017, , .		2
33	A geometric space-view redundancy descriptor for light fields: Predicting the compression potential of the JPEG Pleno light field datasets. , 2017, , .		4
34	Prediction Techniques for Image and Video Coding. , 2017, , 7-33.		1
35	Compression of Depth Maps Using Predictive Coding. , 2017, , 65-95.		0
36	Image and Video Coding Standards. , 2017, , 35-64.		0

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37	Design of Seasonal Adjustment Filter Robust to Variations in the Seasonal Behaviour of Time Series. Journal of Official Statistics, 2017, 33, 155-186.	0.1	0
38	Feature-based video coding: Designing an RD efficient and search friendly framework. , 2016, , .		1
39	Efficient plenoptic imaging representation: Why do we need it?. , 2016, , .		19
40	Light field HEVC-based image coding using locally linear embedding and self-similarity compensated prediction. , 2016, , .		45
41	Light field imaging coding: Performance assessment methodology and standards benchmarking. , 2016, , .		14
42	A morphological approach to the automatic detection of dark fringes applied to birefringence images. , 2016, , .		1
43	The influence of feature vector on the classification of mechanical faults using neural networks. , 2016, , .		13
44	Image Coding Using Generalized Predictors Based on Sparsity and Geometric Transformations. IEEE Transactions on Image Processing, 2016, 25, 4046-4060.	6.0	6
45	Audio anomaly detection on rotating machinery using image signal processing. , 2016, , .		8
46	An objective 3D quality assessment model to adjust stereo camera baseline. , 2015, , .		2
47	Abandoned object detection using operator-space pursuit. , 2015, , .		7
48	Sparse least-squares prediction for intra image coding. , 2015, , .		6
49	On the detection of abandoned objects with a moving camera using robust subspace recovery and sparse representation. , 2015, , .		7
50	Intra Predictive Depth Map Coding Using Flexible Block Partitioning. IEEE Transactions on Image Processing, 2015, 24, 4055-4068.	6.0	21
51	Enhanced motion cues for automatic depth extraction for 2D-to-3D video conversion. , 2014, , .		0
52	An annotated video database for abandoned-object detection in a cluttered environment. , 2014, , .		10
53	Single image super-resolution using sparse representations with structure constraints. , 2014, , .		4
54	Frames in Signal Processing. Academic Press Library in Signal Processing, 2014, 1, 561-590.	0.8	0

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55	High-precision frequency estimation of real sinusoids with reduced computational complexity using a model-based matched-spectrum approach. , 2014, 34, 67-73.		11
56	On the design of maximally incoherent sensing matrices for compressed sensing using orthogonal bases and its extension for biorthogonal bases case. , 2014, 27, 12-22.		13
57	FIR Filter Design Based on Successive Approximation of Vectors. IEEE Transactions on Signal Processing, 2014, 62, 3833-3848.	3.2	12
58	The Compression of Electric Signal Waveforms for Smart Grids: State of the Art and Future Trends. IEEE Transactions on Smart Grid, 2014, 5, 291-302.	6.2	119
59	Image coding using Variable-Size Transforms and a full binary tree recursive optimization. , 2014, , .		0
60	Special issue on "Challenges, trends and solutions for 3-D imaging techniques" Multidimensional Systems and Signal Processing, 2013, 24, 219-220.	1.7	0
61	Multiscale Image Fusion Using the Undecimated Wavelet Transform With Spectral Factorization and Nonorthogonal Filter Banks. IEEE Transactions on Image Processing, 2013, 22, 1005-1017.	6.0	83
62	On fault classification in rotating machines using fourier domain features and neural networks. , 2013, , .		11
63	Quality perception in 3D interactive environments. , 2013, , .		1
64	Video compression using 3D multiscale recurrent patterns. , 2013, , .		1
65	Turning Laminaria digitata seaweed into a resource for sustainable and ecological removal of trivalent chromium ions from aqueous solutions. Clean Technologies and Environmental Policy, 2013, 15, 955-965.	2.1	6
66	Lossy and lossless image encoding using multi-scale recurrent pattern matching. IET Image Processing, 2013, 7, 556-566.	1.4	3
67	A novel iterative calibration approach for thermal infrared cameras. , 2013, , .		17
68	Predictive depth map coding for efficient virtual view synthesis. , 2013, , .		4
69	Impact of encoding configurations on the perceived quality of high definition videoconference sequences. , 2012, , .		1
70	Infrared-visible image fusion using the undecimated wavelet transform with spectral factorization and target extraction. , 2012, , .		8
71	Efficient depth map coding using linear residue approximation and a flexible prediction framework. , 2012, , .		6
72	Guest Editorial Special Issue on ISCAS 2011. IEEE Transactions on Circuits and Systems I: Regular Papers, 2012, 59, 905-905.	3.5	0

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73	Efficient Recurrent Pattern Matching Video Coding. IEEE Transactions on Circuits and Systems for Video Technology, 2012, 22, 1161-1173.	5.6	4
74	A generic post-deblocking filter for block based image compression algorithms. Signal Processing: Image Communication, 2012, 27, 985-997.	1.8	19
75	Recursive Algorithms for Bias and Gain Nonuniformity Correction in Infrared Videos. IEEE Transactions on Image Processing, 2012, 21, 4758-4769.	6.0	27
76	How far can one compress digital fault records? Analysis of a matching pursuit-based algorithm. , 2012, 22, 288-297.		7
77	A Controlled Filtering Method for Estimating Harmonics of Off-Nominal Frequencies. IEEE Transactions on Smart Grid, 2012, 3, 38-49.	6.2	35
78	Compression of touchless multiview fingerprints. , 2011, , .		3
79	Stereo image coding using dynamic template-matching prediction. , 2011, , .		4
80	Enhanced demodulation-based technique for estimating the parameters of fundamental component in power systems. IET Generation, Transmission and Distribution, 2011, 5, 979.	1.4	16
81	Successive Approximation Wavelet Coding of AVIRIS Hyperspectral Images. IEEE Journal on Selected Topics in Signal Processing, 2011, 5, 370-385.	7.3	8
82	No-Reference Blur Assessment of Digital Pictures Based on Multifeature Classifiers. IEEE Transactions on Image Processing, 2011, 20, 64-75.	6.0	149
83	Adaptive least squares prediction for stereo image coding. , 2011, , .		7
84	Successive approximation FIR filter design. , 2011, , .		0
85	Computational complexity reduction methods for multiscale recurrent pattern algorithms. , 2011, , .		1
86	On the statistics of matching pursuit angles. Signal Processing, 2010, 90, 3164-3184.	2.1	10
87	Facial fiducial points detection using discriminative filtering on principal components. , 2010, , .		5
88	Intra-prediction for color image coding using YUV correlation. , 2010, , .		11
89	Waveform speech coding using multiscale recurrent patterns. , 2010, , .		2
90	Compressing depth maps using multiscale recurrent pattern image coding. Electronics Letters, 2010, 46, 340.	0.5	11

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91	Scanned Compound Document Encoding Using Multiscale Recurrent Patterns. IEEE Transactions on Image Processing, 2010, 19, 2712-2724.	6.0	21
92	Multiscale recurrent pattern matching approach for depth map coding. , 2010, , .		6
93	Improving multiscale recurrent pattern image coding with least-squares prediction mode. , 2009, , .		15
94	On the empirical rate-distortion performance of Compressive Sensing. , 2009, , .		26
95	Joint bias and gain nonuniformity correction of infrared videos using tensorial-RLS technique. , 2009, , .		3
96	Objective no-reference image blur metric based on local phase coherence. Electronics Letters, 2009, 45, 1162.	0.5	24
97	On ECG Signal Compression With 1-D Multiscale Recurrent Patterns Allied to Preprocessing Techniques. IEEE Transactions on Biomedical Engineering, 2009, 56, 896-900.	2.5	16
98	A face-based authentication system using correlation filters on videos. , 2009, , .		1
99	On EMG Signal Compression With Recurrent Patterns. IEEE Transactions on Biomedical Engineering, 2008, 55, 1920-1923.	2.5	28
100	ECG Signal Compression Based on Dc Equalization and Complexity Sorting. IEEE Transactions on Biomedical Engineering, 2008, 55, 1923-1926.	2.5	36
101	Compression of Hyperspectral Images with LVQ-SPECK. , 2008, , .		4
102	Universal Image Compression Using Multiscale Recurrent Patterns With Adaptive Probability Model. IEEE Transactions on Image Processing, 2008, 17, 512-527.	6.0	19
103	Multiscale recurrent pattern image coding with a flexible partition scheme. , 2008, , .		10
104	3D weather radar image compression using multiscale recurrent patterns. , 2008, , .		3
105	Hyperspectral image coding with LVQ-SPECK. , 2008, , .		1
106	On Dictionary Adaptation for Recurrent Pattern Image Coding. IEEE Transactions on Image Processing, 2008, 17, 1640-1653.	6.0	26
107	Improving Multiscale Recurrent Pattern Image Coding with Deblocking Filtering. Communications in Computer and Information Science, 2008, , 224-236.	0.4	2
108	Optimum Rate-Distortion Dictionary Selection for Compression of Atomic Decompositions of Electric Disturbance Signals. IEEE Signal Processing Letters, 2007, 14, 81-84.	2.1	19

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109	Modeling of Electric Disturbance Signals Using Damped Sinusoids via Atomic Decompositions and Its Applications. <i>Eurasip Journal on Advances in Signal Processing</i> , 2007, 2007, .	1.0	15
110	An efficient Lloyd-Max quantizer for Matching Pursuit decompositions. , 2006, , .		0
111	Improving multiscale recurrent pattern image coding with enhanced dictionary updating strategies. , 2006, , .		1
112	Compression of atomic decompositions using R-D optimum dictionary selection. , 2006, , .		0
113	Improving H.264/AVC Inter Compression with Multiscale Recurrent Patterns. , 2006, , .		5
114	H.264/AVC Based Video Coding Using Multiscale Recurrent Patterns: First Results. <i>Lecture Notes in Computer Science</i> , 2006, , 107-114.	1.0	4
115	Universal image coding using multiscale recurrent patterns and prediction. , 2005, , .		12
116	Digital Image Processing. , 2005, , 891-910.		17
117	Efficient coherent adaptive representations of monitored electric signals in power systems using damped sinusoids. <i>IEEE Transactions on Signal Processing</i> , 2005, 53, 3831-3846.	3.2	36
118	Electrocardiographic signal compression using multiscale recurrent patterns. <i>IEEE Transactions on Circuits and Systems Part 1: Regular Papers</i> , 2005, 52, 2739-2753.	0.1	20
119	Multiscale recurrent patterns applied to stereo image coding. <i>IEEE Transactions on Circuits and Systems for Video Technology</i> , 2005, 15, 1434-1447.	5.6	14
120	Comparative analysis of bitplane-based wavelet image coders. <i>IET Computer Vision</i> , 2004, 151, 109.	1.3	1
121	A bit allocation scheme for a class of embedded wavelet video encoders. <i>Journal of Visual Communication and Image Representation</i> , 2003, 14, 136-149.	1.7	1
122	Wavelet-watershed automatic infrared image segmentation method. <i>Electronics Letters</i> , 2003, 39, 903.	0.5	11
123	Multiple template detection using impulse restoration and discriminative filters. <i>Electronics Letters</i> , 2003, 39, 1172.	0.5	3
124	Source-channel coding of still images using lapped transforms and block classification. <i>Electronics Letters</i> , 2002, 38, 1087.	0.5	0
125	Video coding using greedy decompositions on generalised bit-planes. <i>Electronics Letters</i> , 2002, 38, 507.	0.5	2
126	Successive approximation quantization for image compression. <i>IEEE Circuits and Systems Magazine</i> , 2002, 2, 20-45.	2.6	2



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127	Closed-form solutions for discriminative filtering using impulse restoration techniques. Electronics Letters, 2002, 38, 1332.	0.5	4
128	Design of High-Performance Wavelets for Image Coding Using a Perceptual Time Domain Criterion. Circuits, Systems, and Signal Processing, 2002, 21, 225-242.	1.2	0
129	Alpha-expansions: a class of frame decompositions. Applied and Computational Harmonic Analysis, 2002, 13, 103-115.	1.1	3
130	Multidimensional signal compression using multiscale recurrent patterns. Signal Processing, 2002, 82, 1559-1580.	2.1	43
131	Uniform distribution of points on a hyper-sphere with applications to vector bit-plane encoding. IET Computer Vision, 2001, 148, 187.	1.3	39
132	Design of nonlinear multi-resolution decomposition schemes using morphological operations. Electronics Letters, 2000, 36, 843.	0.5	1
133	Non-separable non-linear decompositions with applications to image compression. , 2000, , .		0
134	Codebooks for vector bit-plane encoding. Electronics Letters, 2000, 36, 1038.	0.5	0
135	Segmentation approach using local image statistics. Electronics Letters, 2000, 36, 1199.	0.5	7
136	Rate control strategy for embedded wavelet video coders. Electronics Letters, 1999, 35, 1815.	0.5	2
137	Convergent algorithms for successive approximation vector quantisation with applications to wavelet image compression. IET Computer Vision, 1999, 146, 159.	1.3	13
138	Design of wavelets with optimal correction of ringing effect. Electronics Letters, 1998, 34, 447.	0.5	0
139	Results on successive approximation vector quantisation. Electronics Letters, 1998, 34, 59.	0.5	2
140	Design of wavelets for image compression satisfying perceptual criteria. Electronics Letters, 1997, 33, 40.	0.5	5
141	Super high definition image coding using wavelet vector quantization. IEEE Transactions on Circuits and Systems for Video Technology, 1996, 6, 399-406.	5.6	7
142	A successive approximation vector quantizer for wavelet transform image coding. IEEE Transactions on Image Processing, 1996, 5, 299-310.	6.0	69
143	On the performance of linear phase wavelet transforms in low bit-rate image coding. IEEE Transactions on Image Processing, 1996, 5, 689-704.	6.0	48
144	Low bit-rate video coding using wavelet vector quantisation. IET Computer Vision, 1995, 142, 141.	1.3	13

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145	A Hybrid Subband-DCT Codec for Transmission of High Resolution Still Pictures at 64K bit/s. Journal of Visual Communication and Image Representation, 1995, 6, 164-177.	1.7	1
146	Compression of super high definition images using successive approximation wavelet lattice quantisation. , 1995, , .		0
147	Interframe image sequence coding using overlapped motion estimation and wavelet lattice quantisation. , 1995, , .		0
148	Wavelet vector quantisation scheme for image sequence coding at 64 kbit/s. Electronics Letters, 1995, 31, 92-93.	0.5	8
149	Wavelet transform image coding using lattice vector quantisation. Electronics Letters, 1994, 30, 1477-1478.	0.5	12
150	A DCT-based aliasing cancellation method in subband coding. IEEE Transactions on Circuits and Systems for Video Technology, 1993, 3, 384-387.	5.6	1
151	Image coding by the mesh block transform. , 0, , .		0
152	On the coding gain of wavelet transforms. , 0, , .		4
153	Image coding using successive approximation wavelet vector quantization. , 0, , .		3
154	Super high definition image coding using successive approximation wavelet vector quantization. , 0, , .		0
155	Wavelet lattice quantization for low bit rate video coding. , 0, , .		0
156	A family of wavelets for image compression satisfying perceptual criteria. , 0, , .		3
157	Design of high performance wavelets for image coding. , 0, , .		0
158	Generalized bit-planes for embedded codes. , 0, , .		5
159	Successive approximation vector quantization with improved convergence. , 0, , .		0
160	Minimizing ringing effect on images coded at low bit rates with wavelets. , 0, , .		0
161	A rate control strategy for embedded wavelet video coders in an MPEG-4 framework. , 0, , .		1
162	A universal multi-dimensional lossy compression algorithm. , 0, , .		4

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163	Successive approximation trellis-coded vector quantization for embedded coders. , 0, , .		0
164	Universal multi-scale matching pursuits algorithm with reduced blocking effect. , 0, , .		3
165	ECG data compression using wavelets. , 0, , .		5
166	Design of non-linear multi-resolution decompositions with applications to image compression. , 0, , .		1
167	Rate distortion optimized adaptive multiscale vector quantization. , 0, , .		5
168	Two-dimensional discriminative filters for image template detection. , 0, , .		5
169	Matching pursuits video coding using generalized bit-planes. , 0, , .		3
170	Stereo image coding using multiscale recurrent patterns. , 0, , .		3
171	Robust still image coding using lapped transforms with block classification. , 0, , .		0
172	Coherent decompositions of power systems signals using damped sinusoids with applications to denoising. , 0, , .		4
173	Robust remote sensing still image coding with low memory requirements. , 0, , .		0
174	Improved dictionaries for generalized bitplanes-based matching pursuits video coding using ridgelets. , 0, , .		1
175	Multidimensional signal compression using multi-scale recurrent patterns with smooth side-match criterion. , 0, , .		5
176	Reduced cross-discrimination for discriminative filters. , 0, , .		0
177	On the Time-Frequency Content of Weyl-Heisenberg Frames Generated from Odd and Even Functions. , 0, , .		0
178	Efficient dictionary design for multiscale recurrent pattern image coding. , 0, , .		7