Jose C M Bermudez

List of Publications by Year
in descending order

144	3,122	218381	189595
papers	citations	26 h-index	50 g-index

147	147	147	1681
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Kalman Filtering and Expectation Maximization for Multitemporal Spectral Unmixing. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	9
2	Model-Based Deep Autoencoder Networks for Nonlinear Hyperspectral Unmixing. IEEE Geoscience and Remote Sensing Letters, 2022, 19, 1-5.	1.4	13
3	Graph Topology Inference With Derivative-Reproducing Property in RKHS: Algorithm and Convergence Analysis. IEEE Transactions on Signal and Information Processing Over Networks, 2022, 8, 78-91.	1.6	1
4	Hyperspectral Super-resolution Accounting for Spectral Variability: Coupled Tensor LL1-Based Recovery and Blind Unmixing of the Unknown Super-resolution Image. SIAM Journal on Imaging Sciences, 2022, 15, 110-138.	1.3	10
5	Deep Generative Models for Library Augmentation in Multiple Endmember Spectral Mixture Analysis. IEEE Geoscience and Remote Sensing Letters, 2021, 18, 1831-1835.	1.4	16
6	Fast Unmixing and Change Detection in Multitemporal Hyperspectral Data. IEEE Transactions on Computational Imaging, 2021, 7, 975-988.	2.6	10
7	Fight the Pandemic: Highlights From the 2020 IEEE 5-Minute Video Clip Contest [SP Competitions]. IEEE Signal Processing Magazine, 2021, 38, 138-143.	4.6	0
8	Coupled Tensor Decomposition for Hyperspectral and Multispectral Image Fusion With Inter-Image Variability. IEEE Journal on Selected Topics in Signal Processing, 2021, 15, 702-717.	7.3	34
9	A Homogeneity-Based Multiscale Hyperspectral Image Representation for Sparse Spectral Unmixing. , 2021, , .		3
10	Stochastic analysis of the diffusion LMS algorithm for cyclostationary white Gaussian inputs. Signal Processing, 2021, 185, 108081.	2.1	7
11	Stochastic analysis of the diffusion least mean square and normalized least mean square algorithms for cyclostationary white Gaussian and nonâ€<scp>Gaussian</scp> inputs. International Journal of Adaptive Control and Signal Processing, 2021, 35, 2466-2486.	2.3	6
12	Online Graph-Based Change Point Detection in Multiband Image Sequences. , 2021, , .		3
13	Super-Resolution for Hyperspectral and Multispectral Image Fusion Accounting for Seasonal Spectral Variability. IEEE Transactions on Image Processing, 2020, 29, 116-127.	6.0	78
14	Deep Generative Endmember Modeling: An Application to Unsupervised Spectral Unmixing. IEEE Transactions on Computational Imaging, 2020, 6, 374-384.	2.6	68
15	A Blind Multiscale Spatial Regularization Framework for Kernel-Based Spectral Unmixing. IEEE Transactions on Image Processing, 2020, 29, 4965-4979.	6.0	17
16	A Data Dependent Multiscale Model for Hyperspectral Unmixing With Spectral Variability. IEEE Transactions on Image Processing, 2020, 29, 3638-3651.	6.0	29
17	Stochastic Analysis of the Recursive Least Squares Algorithm for Cyclostationary Colored Inputs. IEEE Transactions on Signal Processing, 2020, 68, 676-686.	3.2	11
18	Low-Rank Tensor Modeling for Hyperspectral Unmixing Accounting for Spectral Variability. IEEE Transactions on Geoscience and Remote Sensing, 2020, 58, 1833-1842.	2.7	43

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19	A switched variable step size NLMS adaptive filter. , 2020, 101, 102730.		22
20	Highlights From the Signal Processing Theory and Methods Technical Committee [In the Spotlight]. IEEE Signal Processing Magazine, 2020, 37, 102-104.	4.6	7
21	A New Adaptive Video Super-Resolution Algorithm With Improved Robustness to Innovations. IEEE Transactions on Image Processing, 2019, 28, 673-686.	6.0	12
22	Improved Hyperspectral Unmixing with Endmember Variability Parametrized Using an Interpolated Scaling Tensor. , 2019, , .		10
23	Stochastic analysis of the LMS algorithm for cyclostationary colored Gaussian and non-Gaussian inputs. , 2019, 88, 149-159.		9
24	Stochastic analysis of the LMS algorithm for cyclostationary colored Gaussian inputs. Signal Processing, 2019, 160, 127-136.	2.1	10
25	Non-Destructive Prediction of Pork Meat Degradation using a Stacked Autoencoder Classifier on Hyperspectral Images. , 2019, , .		0
26	A Fast Multiscale Spatial Regularization for Sparse Hyperspectral Unmixing. IEEE Geoscience and Remote Sensing Letters, 2019, 16, 598-602.	1.4	76
27	Stochastic analysis of soft limiters in the LMS algorithm for stationary white Gaussian inputsâ€”A unified theory. Signal Processing, 2018, 142, 27-35.	2.1	4
28	An adaptive combination constrained proportionate normalized maximum correntropy criterion algorithm for sparse channel estimations. Eurasip Journal on Advances in Signal Processing, 2018, 2018, .	1.0	10
29	Generalized Linear Mixing Model Accounting for Endmember Variability. , 2018, , .		54
30	A Low-Rank Tensor Regularization Strategy for Hyperspectral Unmixing. , 2018, , .		18
31	Super-resolution reconstruction of electrical impedance tomography images. Computers and Electrical Engineering, 2018, 69, 1-13.	3.0	26
32	A New Decision-Theory-Based Framework for Echo Canceler Control. IEEE Transactions on Signal Processing, 2018, 66, 4304-4314.	3.2	2
33	Performance of soft limiters in the LMS algorithm for cyclostationary white Gaussian inputs. Signal Processing, 2018, 152, 197-205.	2.1	3
34	Stochastic Analysis of the LMS and NLMS Algorithms for Cyclostationary White Gaussian and Non-Gaussian Inputs. IEEE Transactions on Signal Processing, 2018, 66, 4753-4765.	3.2	29
35	Stochastic behavior analysis of the Gaussian KLMS algorithm for a correlated input signal. Signal Processing, 2018, 152, 286-291.	2.1	6
36	Band Selection for Nonlinear Unmixing of Hyperspectral Images as a Maximal Clique Problem. IEEE Transactions on Image Processing, 2017, 26, 2179-2191.	6.0	26

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37	A new adaptive video SRR algorithm with improved robustness to innovations. , 2017, , .		2
38	A new kernel Kalman filter algorithm for estimating time-varying nonlinear systems. , 2017, , .		1
39	A design methodology for the Gaussian KLMS algorithm. , 2017, , .		4
40	Reweighted nonnegative least-mean-square algorithm. Signal Processing, 2016, 128, 131-141.	2.1	18
41	A New Theoretical Model for the Pseudo Affine Projection Algorithm for Unity Step Size and Autoregressive Inputs. IEEE Transactions on Signal Processing, 2016, 64, 3591-3604.	3.2	2
42	Stochastic analysis of the Least Mean Kurtosis algorithm for Gaussian inputs. , 2016, 54, 35-45.		21
43	Stochastic behavior of the nonnegative least mean fourth algorithm for stationary Gaussian inputs and slow learning. Signal Processing, 2016, 128, 18-27.	2.1	6
44	Nonparametric Detection of Nonlinearly Mixed Pixels and Endmember Estimation in Hyperspectral Images. IEEE Transactions on Image Processing, 2016, 25, 1136-1151.	6.0	30
45	Stochastic Analysis of an Adaptive Line Enhancer/Canceler With a Cyclostationary Input. IEEE Transactions on Signal Processing, 2016, 64, 104-119.	3.2	25
46	Band selection in RKHS for fast nonlinear unmixing of hyperspectral images. , 2015, , .		9
47	Convergence analysis of the augmented complex klms algorithm with pre-tuned dictionary. , 2015, , .		8
48	Flux Balance Analysis with Objective Function Defined by Proteomics Dataâ€"Metabolism of Mycobacterium tuberculosis Exposed to Mefloquine. PLoS ONE, 2015, 10, e0134014.	1.1	21
49	Detection of nonlinear mixtures using Gaussian processes: Application to hyperspectral imaging. , 2014, , .		7
50	Convergence analysis of kernel LMS algorithm with pre-tuned dictionary. , 2014, , .		22
51	Nonlinear Unmixing of Hyperspectral Images: Models and Algorithms. IEEE Signal Processing Magazine, 2014, 31, 82-94.	4.6	362
52	Convex combinations of kernel adaptive filters. , 2014, , .		9
53	Stochastic analysis of the least mean fourth algorithm for non-stationary white Gaussian inputs. Signal, Image and Video Processing, 2014, 8, 133-142.	1.7	30
54	Steady-State Performance of Non-Negative Least-Mean-Square Algorithm and Its Variants. IEEE Signal Processing Letters, 2014, 21, 928-932.	2.1	24

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55	Variants of Non-Negative Least-Mean-Square Algorithm and Convergence Analysis. IEEE Transactions on Signal Processing, 2014, 62, 3990-4005.	3.2	33
56	Stochastic Analysis of the LMS and NLMS Algorithms for Cyclostationary White Gaussian Inputs. IEEE Transactions on Signal Processing, 2014, 62, 2238-2249.	3.2	54
57	Statistical Analysis of a Jointly Optimized Beamformer-Assisted Acoustic Echo Canceler. IEEE Transactions on Signal Processing, 2014, 62, 252-265.	3.2	9
58	Statistical analysis of jointly-optimized GSC implementations of beamformer-assisted acoustic echo cancelers. , 2014, , .		0
59	Region-Based Wavelet-Packet Adaptive Algorithm for Identification of Sparse Impulse Responses. IEEE Transactions on Signal Processing, 2013, 61, 3321-3333.	3.2	9
60	A robust test for nonlinear mixture detection in hyperspectral images. , 2013, , .		9
61	Statistical analysis of the jointly-optimized acoustic echo cancellation BF-AEC structure. , 2013, , .		2
62	Closed-form conditions for convergence of the Gaussian kernel-least-mean-square algorithm. , 2012, , .		8
63	Identification of sparse impulse responses â€“ design and implementation using the partial Haar block wavelet transform. , 2012, 22, 1073-1084.		5
64	Stochastic Behavior Analysis of the Gaussian Kernel Least-Mean-Square Algorithm. IEEE Transactions on Signal Processing, 2012, 60, 2208-2222.	3.2	86
65	Transient Mean-Square Analysis of Prediction Error Method-Based Adaptive Feedback Cancellation in Hearing Aids. IEEE Transactions on Audio Speech and Language Processing, 2012, 20, 261-275.	3.8	10
66	A modified non-negative LMS algorithm and its stochastic behavior analysis. , 2011, , .		4
67	Stochastic analysis of the LMS algorithm for non-stationary white Gaussian inputs. , 2011, , .		12
68	Speech enhancement using a frame adaptive gain function for Wiener filtering. , 2011, , .		1
69	Nonnegative Least-Mean-Square Algorithm. IEEE Transactions on Signal Processing, 2011, 59, 5225-5235.	3.2	63
70	A composite hypothesis test for active weight detection in sparse system identification. , 2011, , .		1
71	Mean-square stability of the Normalized Least-Mean Fourth algorithm for white Gaussian inputs. , 2011, 21, 694-700.		26
72	Stochastic analysis of an error power ratio scheme applied to the affine combination of two LMS adaptive filters. Signal Processing, 2011, 91, 2615-2622.	2.1	9

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73	Stochastic behavior analysis of the Gaussian Kernel Least Mean Square algorithm. , 2011, , .		5
74	On the optimal solutions of beamformer assisted acoustic echo cancellers. , 2011, , .		2
75	Non-negative distributed regression for data inference in wireless sensor networks. , 2010, , .		5
76	A stochastic analysis of the NLMS algorithm implemented in finite precision. , 2010, , .		0
77	Mimetic wavelet-packet transform based adaptive algorithm for sparse response identification. , 2010, , .		0
78	A Decentralized Approach for Nonlinear Prediction of Time Series Data in Sensor Networks. Eurasip Journal on Wireless Communications and Networking, 2010, 2010, .	1.5	5
79	A stochastic model for the deficient order Affine Projection algorithm. , 2010, , .		1
80	Functional estimation in Hilbert space for distributed learning in wireless sensor networks. , 2009, , .		8
81	A Stochastic Model for a Pseudo Affine Projection Algorithm. IEEE Transactions on Signal Processing, 2009, 57, 107-118.	3.2	25
82	Echo Cancellationâ€"The Generalized Likelihood Ratio Test For Double-Talk Versus Channel Change. IEEE Transactions on Signal Processing, 2009, 57, 916-926.	3.2	12
83	Online Prediction of Time Series Data With Kernels. IEEE Transactions on Signal Processing, 2009, 57, 1058-1067.	3.2	378
84	Registration Errors: Are They Always Bad for Super-Resolution?. IEEE Transactions on Signal Processing, 2009, 57, 3815-3826.	3.2	9
85	Design of high capacity 3D print codes aiming for robustness to the PS channel and external distortions. , 2009, , .		5
86	Design of high capacity 3D print codes with visual cues aiming for robustness to the PS channel and external distortions. , 2009, , .		5
87	An affine combination of two LMS adaptive filters - statistical analysis of an error power ratio scheme. , 2009, , .		0
88	A noise resilient variable step-size LMS algorithm. Signal Processing, 2008, 88, 733-748.	2.1	53
89	Statistical analysis of the LMS adaptive algorithm subjected to a symmetric dead-zone nonlinearity at the adaptive filter output. Signal Processing, 2008, 88, 1485-1495.	2.1	6
90	Informed Choice of the LMS Parameters in Super-Resolution Video Reconstruction Applications. IEEE Transactions on Signal Processing, 2008, 56, 555-564.	3.2	9

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91	Stochastic Analysis of the LMS Algorithm for System Identification With Subspace Inputs. IEEE Transactions on Signal Processing, 2008, 56, 1018-1027.	3.2	17
92	An Affine Combination of Two LMS Adaptive Filtersâ€"Transient Mean-Square Analysis. IEEE Transactions on Signal Processing, 2008, 56, 1853-1864.	3.2	126
93	An affine combination of two NLMS adaptive filters - Transient mean-square analysis. , 2008, , .		3
94	On performance bounds for an affine combination of two LMS adaptive filters. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	5
95	Low-complexity robust sparse channel identification using partial block wavelet transforms-analysis and implementation. Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing, 2008, , .	1.8	3
96	Distributed prediction of time series data with kernels and adaptive filtering techniques in sensor networks. , 2008, , .		4
97	Statistical Analysis of the LMS Algorithm Applied to Super-Resolution Image Reconstruction. IEEE Transactions on Signal Processing, 2007, 55, 2084-2095.	3.2	28
98	On-line Nonlinear Sparse Approximation of Functions. , 2007, , .		32
99	Improving Robustness of CDM Spread Spectrumwatermarking. , 2007, , .		2
100	Are Registration Errors Always Bad for Super-Resolution?. , 2007, , .		3
101	Wavelet-Packet-Based Adaptive Algorithm for Sparse Impulse Response Identification. , 2007, , .		10
102	Analysis of LMS Algorithm Behavior with Subspace Inputs. , 2007, , .		1
103	A Mean-Square Stability Analysis of the Least Mean Fourth Adaptive Algorithm. IEEE Transactions on Signal Processing, 2007, 55, 4018-4028.	3.2	70
104	New analytical model for the filtered-x least mean squares algorithm verified through active noise control experiment. Mechanical Systems and Signal Processing, 2007, 21, 1839-1852.	4.4	8
105	Probability of divergence for the least-mean fourth algorithm. IEEE Transactions on Signal Processing, 2006, 54, 1376-1385.	3.2	49
106	On the Design of the LMS Algorithm for Robustness to Outliers in Super-Resolution Video Reconstruction. , 2006, , .		3
107	Statistical analysis of the FXLMS algorithm about the steady-state solution. , 2006, , .		2
108	A Statistical model for the warp matrix in super-resolution video reconstruction. , 2006, , .		2

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109	A new adaptive algorithm for reducing non-linear effects from saturation in active noise control systems. International Journal of Adaptive Control and Signal Processing, 2005, 19, 177-196.	2.3	9
110	Multi-bit informed embedding watermarking with constant robustness. , 2005, , .		8
111	A statistical analysis of the affine projection algorithm for unity step size and autoregressive inputs. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2005, 52, 1394-1405.	0.1	73
112	An improved statistical analysis of the least mean fourth (LMF) adaptive algorithm. IEEE Transactions on Signal Processing, 2003, 51, 664-671.	3.2	65
113	A fully analytical recursive stochastic model to the normalized signed regressor LMS algorithm. , 2003, , .		3
114	The performance surface in filtered nonlinear mean-square estimation. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 2003, 50, 445-447.	0.1	2
115	An improved model for the Normalized LMS algorithm with Gaussian inputs and large number of coefficients. , 2002, , .		30
116	Optimum leakage factor for the MOV-LMS algorithm in nonlinear modeling and control systems. , 2002, , .		1
117	Stochastic analysis of the filtered-X LMS algorithm in systems with nonlinear secondary paths. IEEE Transactions on Signal Processing, 2002, 50, 1327-1342.	3.2	62
118	The performance surface in nonlinear mean square estimation: application to active noise control problems with correlated signals. Controle and Automacao, 2002, 13, 68-76.	0.2	0
119	Stochastic analysis of the LMS algorithm with a saturation nonlinearity following the adaptive filter output. IEEE Transactions on Signal Processing, 2001, 49, 1370-1387.	3.2	30
120	Mean weight behavior of the filtered-X LMS algorithm. IEEE Transactions on Signal Processing, 2000, 48, 1061-1075.	3.2	101
121	Non-Wiener behavior of the filtered LMS algorithm. IEEE Transactions on Circuits and Systems Part 2: Express Briefs, 1999, 46, 1110-1113.	2.3	4
122	Sinusoidal interference rejection analysis of an LMS adaptive feedforward controller with a noisy periodic reference. IEEE Transactions on Signal Processing, 1998, 46, 1298-1313.	3.2	19
123	Transient and tracking performance analysis of the quantized LMS algorithm for time-varying system identification. IEEE Transactions on Signal Processing, 1996, 44, 1990-1997.	3.2	31
124	New insights on the transient and steady-state behavior of the quantized LMS algorithm. IEEE Transactions on Signal Processing, 1996, 44, 2623-2625.	3.2	11
125	A nonlinear analytical model for the quantized LMS algorithm-the power-of-two step size case. IEEE Transactions on Signal Processing, 1996, 44, 2895-2900.	3.2	19
126	A nonlinear analytical model for the quantized LMS algorithm-the arbitrary step size case. IEEE Transactions on Signal Processing, 1996, 44, 1175-1183.	3.2	35

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127	On the compensation of the (sin x)/x distortion in discrete-time to continuous-time signal conversions. IEEE Transactions on Circuits and Systems Part 1: Regular Papers, 1995, 42, 343-351.	0.1	2
128	Explicit formula for harmonic distortion in SC filters with weakly nonlinear capacitors. IET Circuits, Devices and Systems, 1994, 141, 505.	0.6	3
129	Correction of (sin x)/x distortion introduced by discrete-time/continuous-time signal conversion. Electronics Letters, 1988, 24, 1559.	0.5	6
130	Optimisation of parasitic insensitive switched capacitor biquads. IEE Proceedings, Part G: Electronic Circuits and Systems, 1987, 134, 265.	0.2	0
131	A systematic procedure for generation and design of parasitic insensitive SC biquads. IEEE Transactions on Circuits and Systems, 1985, 32, 767-783.	0.9	13
132	High frequency activeâ€R filters. International Journal of Circuit Theory and Applications, 1983, 11, 33-45.	1.3	7
133	Parasitic insensitive toggle-switched capacitor and its applications to switched-capacitor networks. Electronics Letters, 1982, 18, 734.	0.5	2
134	Analysis of the quantization effects of LMS complex algorithm in digital adaptive filters. , 0, , .		0
135	Nonlinear quantization effects an the LMS algorithm-analytical models for the MSE transient and convergence behavior. , 0, , .		4
136	Mean weight behavior of the Filtered-X LMS algorithm. , 0, , .		13
137	An improved model for the second moment of the Filtered-X LMS algorithm. , 0, , .		13
138	Stochastic analysis of the delayed LMS algorithm for a new model. , 0, , .		5
139	Evaluation and design of variable step size adaptive algorithms. , 0, , .		11
140	An improved stochastic model for the least mean fourth (LMF) adaptive algorithm. , 0, , .		2
141	A New Analytical Model for the NLMS Algorithm. , 0, , .		7
142	When is the Least-Mean Fourth Algorithm Mean-Square Stable?. , 0, , .		6
143	Robust recursive least squares algorithm for automotive suspension identification. , 0, , .		0
144	The performance surface in nonlinear mean square estimation: application to the active noise control problem. , 0, , .		1