Adel Belouchrani

List of Publications by Year
in descending order

158 papers	4,988 citations	257357 24 h-index	138417 58 g-index
159 all docs	159 docs citations	159 times ranked	3088 citing authors

#	Article	IF	Citations
1	Precision Analysis for an Optimal Parallel IIR Filterâ€™s Implementation. Circuits, Systems, and Signal Processing, 2022, 41, 4512-4546.	1.2	1
2	Alternating Blind Identification of Power Sources for Mobile SoCs. , 2022, , .		0
3	Time-frequency readability enhancement of compact support kernel-based distributions using image post-processing: Application to instantaneous frequency estimation of M-ary frequency shift keying signals. , 2022, 127, 103535.		5
4	Enhancement of a compact support time-frequency distribution derived from a polynomial kernel using image processing. , 2022, , .		1
5	On the Use of High-resolution Time-frequency Distribution Based on a Polynomial Compact Support Kernel for Fault Detection in a Two-level Inverter. Periodica Polytechnica Electrical Engineering and Computer Science, 2020, 64, 352-365.	0.6	1
6	Approximate Joint Diagonalization for ARMA Dependent Source Separation. , 2020, , .		2
7	Decision Feedback Semi-blind Estimation Algorithm for Specular OFDM Channels. , 2019, , .		1
8	Improved order-statistics-based noise power estimator. Signal Processing, 2019, 164, 202-205.	2.1	1
9	Monitoring of Three-Phase Signals Based on Singular-Value Decomposition. IEEE Transactions on Smart Grid, 2019, 10, 6156-6166.	6.2	9
10	New algorithms on Complex Joint Eigenvalue Decomposition Based on Generalized Givens Rotations. , 2019, , .		3
11	Novel flowchart design of frequency independent 180Â° phase shifters. Microwave and Optical Technology Letters, 2019, 61, 136-140.	0.9	3
12	Novel Reliable and Practical Decoupling Mechanism for Strongly Coupled Antenna Arrays. IEEE Transactions on Antennas and Propagation, 2019, 67, 5892-5899.	3.1	16
13	Frequency and Phasor Estimations in Three-Phase Systems: Maximum Likelihood Algorithms and Theoretical Performance. IEEE Transactions on Smart Grid, 2019, 10, 3248-3258.	6.2	28
14	Semiâ€blind MIMOâ€OFDM channel estimation using expectation maximisation like techniques. IET Communications, 2019, 13, 3452-3462.	1.5	5
15	Subspace-Based Encryption. Studies in Systems, Decision and Control, 2019, , 757-794.	0.8	0
16	Performance analysis and computational cost evaluation of high-resolution time-frequency distributions derived from compact support time-lag kernels. , 2018, 78, 1-19.		18
17	An analytical derivation for second-order blind separation of two signals. Annales Des Telecommunications/Annals of Telecommunications, 2018, 73, 711-717.	1.6	4
18	Blind Identification of Thermal Models and Power Sources From Thermal Measurements. IEEE Sensors Journal, 2018, 18, 680-691.	2.4	16

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19	Efficient Semi-Blind Subspace Channel Estimation for MIMO-OFDM System. , 2018, , .		4
20	Understanding the Sources of Power Consumption in Mobile SoCs. , 2018, , .		3
21	Efficient and Stable Joint Eigenvalue Decomposition Based on Generalized Givens Rotations. , 2018, , .		3
22	Em-Based Semi-Blind Mimo-Ofdm Channel Estimation. , 2018, , .		2
23	Precision analysis with analytical bitâ€width optimisation process for linear circuits with feedbacks. IET Circuits, Devices and Systems, 2018, 12, 563-570.	0.9	4
24	Minimum error rate detection: An adaptive bayesian approach. Signal Processing, 2017, 140, 1-11.	2.1	3
25	Heartbeats classification using QRS and T waves autoregressive features and RR interval features. Expert Systems, 2017, 34, e12219.	2.9	11
26	Blind identification of power sources in processors. , 2017, , .		4
27	A new multi-sensor fusion algorithm based on the Information Filter framework. , 2017, , .		0
28	A Closed Form Solution for Whitenning Based Second Order Blind Identification. , 2017, , .		0
29	Parameter optimization for defeating blind interception in drone protection. , 2017, , .		0
30	Novel and simple approach for reconfiguring the pattern of an UWB CPW-Fed monopole antenna. , 2017, , .		2
31	Closed-form solution to motion parameter estimation of an acoustic source exploiting Doppler effect. , 2017, 63, 35-43.		7
32	Frequency independent 180Â° phase shifter based on UWB coupled sections. Microwave and Optical Technology Letters, 2017, 59, 3185-3189.	0.9	2
33	Further investigations on the performance bounds of MIMO-OFDM channel estimation. , 2017, , .		3
34	Performance Bounds Analysis for Semi-Blind Channel Estimation in MIMO-OFDM Communications Systems. IEEE Transactions on Wireless Communications, 2017, 16, 5925-5938.	6.1	28
35	Ground moving target classification based on micro-Doppler signature using novel spectral information features. , 2017, , .		4
36	Toward green communications using semi-blind channel estimation. , 2017, , .		9

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37	On the impact of signals time-frequency sparsity on the localization performance. , 2016, , .		0
38	What semi-blind channel estimation brings in terms of throughput gain ?. , 2016, , .		5
39	On the use of auto-regressive modeling for arrhythmia detection. , 2016, , .		1
40	Une solution analytique pour l'identification aveugle au second ordre d'un système à deux entrées et deux sorties. Traitement Du Signal, 2016, 33, 385-402.	0.8	0
41	Phasor estimation using conditional maximum likelihood: Strengths and limitations. , 2015, , .		2
42	Performance improvement of direction finding algorithms in non-homogeneous environment through data fusion. , 2015, 41, 41-47.		5
43	Voltage sags estimation in three-phase systems using Unconditional Maximum Likelihood estimation. , 2015, , .		1
44	Separation of Dependent Autoregressive Sources Using Joint Matrix Diagonalization. IEEE Signal Processing Letters, 2015, 22, 1180-1183.	2.1	18
45	Enhanced bit-width optimization for linear circuits with feedbacks. , 2014, , .		6
46	Performance analysis of time frequency subspace based direction finding algorithms in presence of perturbed array manifold. , 2014, , .		2
47	A New Algorithm for Complex Non-Orthogonal Joint Diagonalization Based on Shear and Givens Rotations. IEEE Transactions on Signal Processing, 2014, 62, 1913-1925.	3.2	34
48	Estimation of Amplitude, Phase and Unbalance Parameters in Three-phase Systems: Analytical Solutions, Efficient Implementation and Performance Analysis. IEEE Transactions on Signal Processing, 2014, 62, 4064-4076.	3.2	21
49	Sparsity-based algorithms for blind separation of convolutive mixtures with application to EMG signals. , 2014, , .		1
50	Constant modulus algorithms using hyperbolic Givens rotations. Signal Processing, 2014, 104, 412-423.	2.1	8
51	Min-norm based alphabet-matching algorithm for adaptive blind equalisation of high-order QAM signals. Transactions on Emerging Telecommunications Technologies, 2013, 24, 552-556.	2.6	5
52	Source Separation and Localization Using Time-Frequency Distributions: An Overview. IEEE Signal Processing Magazine, 2013, 30, 97-107.	4.6	54
53	A new methodology for optimal delay detection in mobile localization context. , 2013, , .		2
54	Comparative performance analysis of non orthogonal joint diagonalization algorithms. , 2013, , .		2

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55	Order-statistics minimum error detector for optimal delay detection in multipath Rayleigh fading channel context. , 2013, , .		1
56	Remote monitoring system of electrical machines via INTERNET. , 2013, , .		6
57	Premature ventricular contraction arrhythmia detection using wavelet coefficients. , 2013, , .		5
58	Identification and analysis of wind speed patterns extracted from multi-sensors measurements. Stochastic Environmental Research and Risk Assessment, 2013, 27, 1-9.	1.9	7
59	Sea Clutter Texture Estimation: Exploiting Decorrelation and Cyclostationarity. IEEE Transactions on Aerospace and Electronic Systems, 2013, 49, 726-743.	2.6	9
60	Low complexity adaptive algorithms for Principal and Minor Component Analysis. , 2013, 23, 19-29.		7
61	Minor subspace tracking using MNS technique. , 2012, , .		4
62	Dynamic accuracy adjustement for fixed width dividers. , 2012, , .		0
63	Floating-point scaling technique for sources separation automatic gain control. International Journal of Electronics, 2012, 99, 995-1004.	0.9	0
64	QRS detection based on wavelet coefficients. Computer Methods and Programs in Biomedicine, 2012, 107, 490-496.	2.6	227
65	Performance analysis for time-frequency MUSIC algorithm in presence of both additive noise and array calibration errors. Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.0	18
66	Time-Frequency Distributions Based on Compact Support Kernels: Properties and Performance Evaluation. IEEE Transactions on Signal Processing, 2012, 60, 2814-2827.	3.2	50
67	New algorithms for adaptive BSS. , 2012, , .		0
68	HEARTBEAT CLASSIFICATION USING SUPPORT VECTOR MACHINES (SVMs) WITH AN EMBEDDED REJECT OPTION. International Journal of Pattern Recognition and Artificial Intelligence, 2012, 26, 1250001.	0.7	10
69	Time frequency and array processing of non-stationary signals. Eurasip Journal on Advances in Signal Processing, 2012, 2012, .	1.0	3
70	Subspace-based technique for speech encryption. , 2012, 22, 298-303.		3
71	A comparison between wind speed distributions derived from the maximum entropy principle and Weibull distribution. Case of study; six regions of Algeria. Renewable and Sustainable Energy Reviews, 2012, 16, 379-385.	8.2	52
72	Fast principal component analysis and data whitening algorithms. , 2011, , .		7

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73	A new ToAs' CACFAR Wiener Rake Estimator for downlink mobile positioning in UMTS-FDD system. , 2011, , .		3
74	Compact support kernels based time-frequency distributions: Performance evaluation. , 2011, , .		6
75	VLSI architecture of the blind carrier phase tracking with guaranteed global convergence. , 2011, , .		0
76	Fault Diagnosis in Industrial Induction Machines Through Discrete Wavelet Transform. IEEE Transactions on Industrial Electronics, 2011, 58, 4385-4395.	5.2	263
77	A NEW ADAPTIVE LINEAR COMBINED CFAR DETECTOR IN PRESENCE OF INTERFERING TARGETS. Progress in Electromagnetics Research B, 2011, 34, 367-387.	0.7	15
78	AUTOMATIC THRESHOLD SELECTION IN OS-CFAR RADAR DETECTION USING INFORMATION THEORETIC CRITERIA. Progress in Electromagnetics Research B, 2011, 30, 157-175.	0.7	31
79	An FPGA based soft multiprocessor for DNS/DNSSEC authoritative server. Microprocessors and Microsystems, 2011, 35, 473-483.	1.8	3
80	A contribution in the actualization of wind map of Algeria. Renewable and Sustainable Energy Reviews, 2011, 15, 993-1002.	8.2	72
81	ARCTANGENT ARCHITECTURE FOR HIGH SPEED AND HIGH PRECISION DATA. Journal of Circuits, Systems and Computers, 2011, 20, 1243-1259.	1.0	5
82	Application of time–frequency representation in the study of the cyclical behavior of wind speed in Algeria: wavelet transform. Stochastic Environmental Research and Risk Assessment, 2010, 24, 1233-1239.	1.9	15
83	Wavelet spectral analysis of the temperature and wind speed data at Adrar, Algeria. Renewable Energy, 2010, 35, 1214-1219.	4.3	35
84	A new approach in distributed multisensor tracking systems based on Kalman filter methods. , 2010, , .		0
85	Joint diagonalization of non defective matrices using generalized Jacobi rotations. , 2010, , .		4
86	A subspace-based method for speech encryption. , 2010, , .		9
87	New hybrid adaptive blind equalization algorithms for QAM signals. , 2009, , .		8
88	A new Jacobi-like method for joint diagonalization of arbitrary non-defective matrices. Applied Mathematics and Computation, 2009, 211, 363-373.	1.4	30
89	Hardware implementation of free division block-based BSS algorithm. , 2009, , .		1
90	Blind Separation of Cyclostationary Signals. Lecture Notes in Computer Science, 2009, , 25-33.	1.0	2

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91	Comparison of hybrid adaptive blind equalizers for QAM signals. Proceedings of SPIE, 2009, , .	0.8	0
92	Blind separation of cyclostationary sources using non-orthogonal approximate joint diagonalization. , 2008, , .		3
93	A low-cost adaptive algorithm for blind equalization without channel order estimation. , 2008, , .		3
94	Underdetermined Blind Separation of Nondisjoint Sources in the Time-Frequency Domain. IEEE Transactions on Signal Processing, 2007, 55, 897-907.	3.2	162
95	Estimation of Multicomponent Polynomial-Phase Signals Impinging on a Multisensor Array Using State–Space Modeling. IEEE Transactions on Signal Processing, 2007, 55, 32-45.	3.2	31
96	Optimized implementation of a parallel DSP architecture for real time stacked beam radar signal processing. , 2007, , .		1
97	Analysis and Real Time Implementation of a Clutter Map CFAR Detector with Noncoherent Integration. , 2006, , .		2
98	Performance Analysis of a Novel Adaptive SLB/CFAR System. , 2006, , .		1
99	Design and Real Time Implementation of a Novel Combined CA-CFAR/SLB System on TMS320C67x Processor. , 2006, , .		4
100	Fast Adaptive Blind MMSE Equalizer for Multichannel FIR Systems. Eurasip Journal on Advances in Signal Processing, 2006, 2006, 1.	1.0	12
101	Contrast Functions for Blind Source Separation Based on Time-Frequency Information-Theory. Lecture Notes in Computer Science, 2006, , 876-884.	1.0	0
102	Separating More Sources Than Sensors Using Time-Frequency Distributions. Eurasip Journal on Advances in Signal Processing, 2005, 2005, 1.	1.0	82
103	Maximum likelihood angle-frequency estimation in partially known correlated noise for low-elevation targets. IEEE Transactions on Signal Processing, 2005, 53, 3057-3064.	3.2	48
104	Blind Separation of Nonstationary Sources. IEEE Signal Processing Letters, 2004, 11, 605-608.	2.1	34
105	A one step time-frequency blind identification. , 2003, , .		8
106	ON THE USE OF MULTIFRACTAL ANALYSIS AND GENETIC ALGORITHMS FOR THE SEGMENTATION OF CERVICAL CELL IMAGES. International Journal of Pattern Recognition and Artificial Intelligence, 2003, 17, 1227-1244.	0.7	4
107	Blind system identification using cross-relation methods: further results and developments. , 2003, , .		8
108	Blind carrier phase estimation in PAM systems. , 2003, , .		0

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109	Jacobi-like algorithm for blind signal separation of convolutive mixtures. Electronics Letters, 2001, 37, 1049.	0.5	28
110	Jammer mitigation in spread spectrum communications using blind sources separation. Signal Processing, 2000, 80, 723-729.	2.1	21
111	Robust whitening procedure in blind source separation context. Electronics Letters, 2000, 36, 2050.	0.5	138
112	The spatial ambiguity function and its applications. IEEE Signal Processing Letters, 2000, 7, 138-140.	2.1	34
113	Application of blind signal separation techniques to airborne antenna arrays. Journal of the Franklin Institute, 1999, 336, 3-18.	1.9	2
114	A two-sensor array blind beamformer for direct sequence spread spectrum communications. IEEE Transactions on Signal Processing, 1999, 47, 2191-2199.	3.2	8
115	Time-frequency MUSIC. IEEE Signal Processing Letters, 1999, 6, 109-110.	2.1	190
116	On the Use of Spatial Time Frequency Distributions for Signal Extraction. Multidimensional Systems and Signal Processing, 1998, 9, 349-354.	1.7	3
117	Blind source separation based on time-frequency signal representations. IEEE Transactions on Signal Processing, 1998, 46, 2888-2897.	3.2	337
118	<title>Time-frequency MUSIC: an array signal processing method based on time-frequency signal representations</title>. , 1998, , .		4
119	Blind source separation using joint signal representations for arbitrary variables. , 1997, , .		2
120	Blind carrier phase tracking with guaranteed global convergence. IEEE Transactions on Signal Processing, 1997, 45, 1889-1894.	3.2	20
121	Direction finding in correlated noise fields based on joint block-diagonalization of spatio-temporal correlation matrices. IEEE Signal Processing Letters, 1997, 4, 266-268.	2.1	43
122	A blind source separation technique using second-order statistics. IEEE Transactions on Signal Processing, 1997, 45, 434-444.	3.2	2,199
123	New approach for blind source separation using time-frequency distributions. , 1996, , .		10
124	Asymptotic performance of second order blind separation. , 0, , .		4
125	A new composite criterion for adaptive and iterative blind source separation. , 0, , .		32
126	Second-order near-field source localization: algorithm and performance analysis. , 0, , .		19

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127	New formulation of the carrier phase tracking problem. , 0, , .		0
128	Minimum noise subspace: concepts and applications. , 0, , .		5
129	An iterative blind source separation technique: implementation and performance. , 0, , .		1
130	Array processing in correlated noise fields based on joint eigen-decomposition of spatial-temporal correlation matrices. , 0, , .		1
131	Blind source separation using time-frequency distributions: algorithm and asymptotic performance. , 0, , .		14
132	Interference mitigation in spread spectrum communications using blind source separation. , 0, , .		2
133	Parametric estimation and suppression of non-stationary interference in DS-spread spectrum communications. , 0, , .		9
134	Blind source separation using the spatial ambiguity functions. , 0, , .		6
135	Two-sensor blind beamformer for direct sequence spread spectrum communications. , 0, , .		0
136	High interference rejection rate achieved through an iterative signal separation. , 0, , .		0
137	An efficient fourth order system identification (FOSI) algorithm utilizing the joint diagonalization procedure. , 0, , .		7
138	A second order multi output deconvolution (SOMOD) technique. , 0, , .		5
139	Joint estimation of propagation parameters in multicarrier systems. , 0, , .		0
140	Joint anti-diagonalization for blind source separation. , 0, , .		30
141	Parameter estimation in low-elevation target tracking. , 0, , .		3
142	Separating more sources than sensors using time-frequency distributions. , 0, , .		34
143	Application of time-frequency distributions to the independent component analysis of ECG signals. , 0, , .		3
144	On the use of a new compact support kernel in time frequency analysis. , 0, , .		5

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145	Blind separation of convolutive mixtures using joint block diagonalization. , 0, , .		13
146	On the application of chirp modulation in spread spectrum communication systems. , 0, , .		11
147	Blind separation of non stationary sources using joint block diagonalization. , 0, , .		7
148	Blind separation of second-order nonstationary and temporally colored sources. , 0, , .		20
149	Maximum likelihood joint angle and delay estimation in unknown noise fields. , 0, , .		5
150	Parameter estimation of multicomponent polynomial-phase signals impinging on a multi-sensor array using extended Kalman filter. , 0, , .		0
151	A fast adaptive blind equalization algorithm robust to channel order over-estimation errors. , 0, , .		7
152	Approximate ML direction finding in spatially correlated noise using oblique projections. , 0, , .		1
153	Multiplicative multiresolution decomposition for 2D signals: application to speckle reduction in sar images. , 0, , .		4
154	Multiplicative multiresolution decomposition with perfect reconstruction. , 0, , .		2
155	Contrast functions for blind source separation based on time frequency distributions. , 0, , .		3
156	Multipath parameter estimation of linear chirp signals using sensor arrays. , 0, , .		4
157	A new blind adaptive MMSE equalizer for MIMO systems. , 0, , .		5
158	Blind Adaptive Equalization Method without Channel Order Estimation. , 0, , .		3