Cornel Ioana

List of Publications by Year
in descending order

126 papers	1,025 citations	16 h-index (516710)
131 all docs	131 docs citations	131 times ranked

25 g-index (580821)

721 citing authors

#	Article	IF	Citations
1	Statistical intrusion detection and eavesdropping in quantum channels with coupling: multiple-preparation and single-preparation methods. Quantum Information Processing, 2022, 21, 1.	2.2	1
2	Entropy-Based Characterization of the Transient Phenomena—Systemic Approach. Mathematics, 2021, 9, 648.	2.2	5
3	Low Complexity Acoustic Imaging System Based on Time of Arrivals Dynamic Estimation. , 2021, , .		0
4	Multivariate Decomposition of Acoustic Signals in Dispersive Channels. Mathematics, 2021, 9, 2796.	2.2	3
5	A Novel Approach for Characterization of Transient Signals Using the Phase Diagram Features. , 2021, , .		4
6	Quantization Effect in Nonuniform Nonsparse Signal Reconstruction. , 2020, , .		0
7	A New Method of Secure Authentication Based on Electromagnetic Signatures of Chipless RFID Tags and Machine Learning Approaches. Sensors, 2020, 20, 6385.	3.8	8
8	New Approach of UAV Movement Detection and Characterization Using Advanced Signal Processing Methods Based on UWB Sensing. Sensors, 2020, 20, 5904.	3.8	12
9	Bit-depth quantization and reconstruction error in digital images. Signal, Image and Video Processing, 2020, 14, 1545-1553.	2.7	4
10	Quantization in Compressive Sensing: A Signal Processing Approach. IEEE Access, 2020, 8, 50611-50625.	4.2	10
11	Gradient-Descent Algorithm Performance With Reduced Set of Quantized Measurements. , 2019, , .		1
12	Phase Diagram-Based Sensing with Adaptive Waveform Design and Recurrent States Quantification for the Instantaneous Frequency Law Tracking. Sensors, 2019, 19, 2434.	3.8	5
13	Extraction of Useful Information Content From Noisy Signals Based on Structural Affinity of Clustered TFDs' Coefficients. IEEE Transactions on Signal Processing, 2019, 67, 3154-3167.	5.3	14
14	On the Quantization and the Probability of Misdetection in Compressive Sensing. , 2019, , .		4
15	Time-Varying Cross-Range in Wideband Sonar Imaging. , 2019, , .		0
16	Transmitted Sequence Influence to Sonar Target Detection using Compressive Sensing. , 2019, , .		0
17	High rate acoustic imagery for underwater object classification in dynamic configuration. , 2019, , .		1
18	Sequence Comparison in Reconstruction and Targeting in Underwater Sonar Imaging. , 2019, , .		4

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19	On the reconstruction of nonsparse time-frequency signals with sparsity constraint from a reduced set of samples. Signal Processing, 2018, 142, 480-484.	3.7	16
20	Wideband signal processing techniques for Interferometric Sonars. , 2018, , .		1
21	Wideband Signals for Phase Differencing Sonar Systems. , 2018, , .		1
22	On the Recognitions Capabilities of Modulated Signals in Phase Diagram Domain. , 2018, , .		2
23	Exploring the Properties of the Phase Diagram Domain for the Instantaneous Frequency Law Estimation. , 2018, , .		0
24	Analysis of off-grid effects in wideband sonar images using compressive sensing. , 2018, , .		3
25	Effect of Random Sampling on Noisy Nonsparse Signals in Time-Frequency Analysis. , 2018, , .		0
26	Decomposition and analysis of signals sparse in the dual polynomial Fourier transform. Microprocessors and Microsystems, 2018, 63, 209-215.	2.8	2
27	On the extension of acoustic flow metering devices to monitor underwater transient phenomena. , 2018, , .		0
28	Error in the Reconstruction of Nonsparse Images. Mathematical Problems in Engineering, 2018, 2018, 1-10.	1.1	8
29	Sparse signal reconstruction in dual polynomial Fourier transform. , 2018, , .		1
30	On the Recognitions Capabilities of Modulated Signals in Phase Diagram Domain. , 2018, , .		3
31	On the multi-modal sensing of electrical arcs. , 2017, , .		5
32	A local entropy-based algorithm for information content extraction from time–frequency distributions of noisy signals. , 2017, 70, 155-165.		22
33	Decomposition of signals in dispersive channels using dual polynomial fourier transform. , 2017, , .		3
34	High-resolution local polynomial Fourier transform in acoustic signal analysis. , 2017, , .		0
35	Instantaneous frequency law tracking using signal's representation in phase diagram domain. , 2017, , .		1
36	Time-frequency signal reconstruction of nonsparse audio signals. , 2017, , .		2

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37	Time of flight estimation in multi-path dispersive configuration using compressive sensing reconstruction in the warped domain. , 2017, , .		0
38	Hausdorff distance applied on real data experiment for underwater localization. , 2017, , .		1
39	Compressive Sensing in Signal Processing: Algorithms and Transform Domain Formulations. Mathematical Problems in Engineering, 2016, 2016, 1-16.	1.1	45
40	Algorithms for Compressive Sensing Signal Reconstruction with Applications. Mathematical Problems in Engineering, 2016, 2016, 1-3.	1.1	3
41	Arc fault detection & localization by electromagnetic-acoustic remote sensing. , 2016, , .		10
42	On the detection of non-stationary signals in the matched signal transform domain. , 2016, , .		0
43	Target-depth estimation in active sonar: Cramér–Rao bounds for a bilinear sound-speed profile. Journal of the Acoustical Society of America, 2016, 140, 1771-1782.	1.1	6
44	Compensation of position offset of acoustic transducers using compressive sensing concept. , 2016, , .		2
45	Cavitation characterization using wide band signals in an acoustic active sensing system. , 2016, , .		0
46	Micro-Doppler Reconstruction in Spaceborne SAR Images Using Azimuth Time–Frequency Tracking of the Phase History. IEEE Geoscience and Remote Sensing Letters, 2016, 13, 604-608.	3.1	7
47	Applications of Transient Signal Analysis Using the Concept of Recurrence Plot Analysis. Springer Proceedings in Physics, 2016, , 19-38.	0.2	12
48	Transient signal characterization using multi-lag phase space analysis. , 2015, , .		2
49	Vibration estimation in SAR images using azimuth time-frequency tracking and a matched signal transform. , 2015, , .		4
50	Analysis of underwater signals with nonlinear time-frequency structures using warping-based compressive sensing algorithm. , 2015, , .		4
51	High-speed sensing for object detection in underwater bi-static acoustic paths. , 2015, , .		0
52	Distributed array of cooperating acoustic sensors using local time-frequency coherence analysis. , 2015, , .		1
53	A Software-Defined Radio approach for locating Electric Arcs. , 2015, , .		0
54	Model-based parameters estimation of non-stationary signals using time warping and a measure of spectral concentration. , 2015, , .		4

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55	Between two engineering ages: Of information and complex systems, professional research is based on a team work!. , 2015, , .		0
56	Range, velocity and immersion estimation of a moving target in a water-filled tank with an active sonar system. , 2015, , .		2
57	Wavelet-based characterization of gait signal for neurological abnormalities. Gait and Posture, 2015, 41, 634-639.	1.4	40
58	Scattering Centers Detection and Tracking in Refocused Spaceborne SAR Images for Infrastructure Monitoring. IEEE Transactions on Geoscience and Remote Sensing, 2015, 53, 4379-4393.	6.3	11
59	Water hammer effect characterization using an acoustic signal processing approach. , 2015, , .		6
60	On the distributed acoustic sensing based on local time-frequency coherence analysis. , 2015, , .		0
61	Range autofocusing for FMCW radars using time warping and a spectral concentration measure. , 2015, , .		4
62	Electric arc localization based on antenna arrays and MUSIC direction of arrival estimation. , 2015, , .		1
63	Electrical arc surveillance and localization system based on advanced signal processing techniques. , 2014, , .		12
64	Zernike ultrasonic tomography for fluid velocity imaging based on pipeline intrusive time-of-flight measurements. IEEE Transactions on Ultrasonics, Ferroelectrics, and Frequency Control, 2014, 61, 1846-1855.	3.0	8
65	A method for antenna gain measurements in nonanechoic sites. Microwave and Optical Technology Letters, 2014, 56, 1553-1557.	1.4	22
66	On the vortex parameter estimation using wide band signals in active acoustic system. , 2014, , .		0
67	Distributed data classification in underwater acoustic sensors based on local time-frequency coherence analysis. , 2014, , .		1
68	Scattering centers monitoring in refocused SAR images on a high-resolution DEM. , 2014, , .		2
69	Robust sparse representation for adaptive sensing of turbulent phenomena. IET Signal Processing, 2014, 8, 285-290.	1.5	2
70	Short-Range Wideband FMCW Radar for Millimetric Displacement Measurements. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 5633-5642.	6.3	108
71	Advanced signal processing techniques for detection and localization of electrical arcs. , 2014, , .		7
72	SAR images refocusing and scattering center detection for infrastructure monitoring. , 2014, , .		4

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73	Recent Advances in Non-stationary Signal Processing Based on the Concept of Recurrence Plot Analysis. Springer Proceedings in Mathematics and Statistics, 2014, , 75-93.	0.2	17
74	Automated segmentation of linear time-frequency representations of marine-mammal sounds. Journal of the Acoustical Society of America, 2013, 134, 2546-2555.	1.1	11
75	FMCW transceiver wideband sweep nonlinearity software correction. , 2013, , .		7
76	Short-range FMCW X-band radar platform for millimetric displacements measurement. , 2013, , .		10
77	Ultrasound testing of metallic structures using a dual symmetric path inspection and a matched filter-based method. , 2013, , .		0
78	Sphericity of complex stochastic models in multivariate SAR images. , 2013, , .		0
79	Using wide band signals for obstacle path correction in acoustic scintillation flow meters. , 2012, , .		1
80	Time-frequency tracking using multi-window local phase analysis. , 2012, , .		1
81	Optimization of partial discharge detection in high voltage cables based on advanced signal processing techniques. , 2012, , .		6
82	A vector approach to transient signal processing. , 2012, , .		10
83	Time-frequency characterization of micro-multipath signals in over-the-horizon radar. , 2012, , .		17
84	Time-frequency analysis of multipath doppler signatures of maneuvering targets. , 2012, , .		7
85	Time-Scale and Dispersive Processing for Wideband Time-Varying Channels. , 2011, , 375-416.		2
86	A time-distributed phase space histogram for detecting transient signals. , 2011, , .		3
87	Nonstationary System Analysis Methods for Underwater Acoustic Communications. Eurasip Journal on Advances in Signal Processing, 2011, 2011, .	1.7	4
88	MIMO array imaging for ultrasonic nondestructive testing. Proceedings of SPIE, 2011, , .	0.8	5
89	Wideband time reversal processing for ultrasound NDE imaging. , 2011, , .		0
90	Analysis of underwater mammal vocalisations using timeâ€"frequency-phase tracker. Applied Acoustics, 2010, 71, 1070-1080.	3.3	23

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91	Two dimensional time-frequency analysis based eigenvalue decomposition applied to image watermarking. Multimedia Tools and Applications, 2010, 49, 529-543.	3.9	15
92	Modification of the robust chirp-rate estimator for impulse noise environments. Signal Processing, 2010, 90, 1730-1736.	3.7	5
93	Parameter estimation of 2-D cubic phase signal using cubic phase function with genetic algorithm. Signal Processing, 2010, 90, 2698-2707.	3.7	21
94	Time-frequency-phase tracking approach : Application to underwater signals in a passive context. , 2010, , .		10
95	Source motion detection, estimation, and compensation for underwater acoustics inversion by wideband ambiguity lag-Doppler filtering. Journal of the Acoustical Society of America, 2010, 128, 3416-3425.	1.1	20
96	Human gait classification using microDoppler time-frequency signal representations. , 2010, , .		41
97	Localization in Underwater Dispersive Channels Using the Time-Frequency-Phase Continuity of Signals. IEEE Transactions on Signal Processing, 2010, 58, 4093-4107.	5.3	31
98	Systemic approach explored in the context of passive target tracking. IET Signal Processing, 2010, 4, 314.	1.5	0
99	Cubic-phase function evaluation for multicomponent signals with application to SAR imaging. IET Signal Processing, 2010, 4, 371.	1.5	16
100	Characterization of Doppler effects in the context of over-the-horizon radar. , 2010, , .		13
101	Monitoring partial discharges in power networks: Contribution to the energetic distribution security. , 2010, , .		1
102	On the characterization of time-scale underwater acoustic signals using matching pursuit decomposition. , 2009, , .		7
103	Signal characterization using generalized &#x201C;Time-phase derivatives&#x201D; representation. , 2009, , .		0
104	Motion effect modeling in multipath configuration using warping based lag-Doppler filtering. , 2009, , .		6
105	Small bowel image classification using cross-co-occurrence matrices on wavelet domain. Biomedical Signal Processing and Control, 2009, 4, 7-15.	5.7	13
106	On the consideration of motion effects in the computation of impulse response for underwater acoustics inversion. Journal of the Acoustical Society of America, 2009, 126, 1739.	1.1	17
107	Time-Frequency Characterization and Receiver Waveform Design for Shallow Water Environments. IEEE Transactions on Signal Processing, 2009, 57, 2973-2985.	5.3	22
108	Effects of Cauchy Integral Formula Discretization on the Precision of IF Estimation: Unified Approach to Complex-Lag Distribution and its Counterpart L-Form. IEEE Signal Processing Letters, 2009, 16, 327-330.	3.6	30

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109	Wideband discrete transformation of acoustic signals in underwater environments. , 2009, , .		2
110	Adaptive Algorithm for Chirp-Rate Estimation. Eurasip Journal on Advances in Signal Processing, 2009, 2009, .	1.7	5
111	Detection and Localization of Transient Sources: Comparative Study of Complex-Lag Distribution Concept Versus Wavelets and Spectrogram-Based Methods. Eurasip Journal on Advances in Signal Processing, 2009, 2009, .	1.7	7
112	An audio watermarking method based on molecular matching pursuit. , 2008, , .		2
113	Time-frequency-phase coherence - general framework for signal analysis in passive context. , 2008, , .		0
114	A Watermarking Method for Speech Signals Based on the Time-Warping Signal Processing Concept. , 2007, , .		0
115	Time-Frequency Modeling of Shallow Water Environments: Rigid vs. Fluid Seabed. , 2007, , .		3
116	Passive acoustic tomography: new concepts and applications using marine mammals: a review. Journal of the Marine Biological Association of the United Kingdom, 2007, 87, 5-10.	0.8	14
117	Diversity in Shallow Water Environments Using Blind Time-Frequency Separation Techniques. Conference Record of the Asilomar Conference on Signals, Systems and Computers, 2007, , .	0.0	3
118	Generalized Representation of Phase Derivatives for Regular Signals. IEEE Transactions on Signal Processing, 2007, 55, 4831-4838.	5.3	33
119	Toward The Use Of The Time–Warping Principle With Discrete–Time Sequences. Journal of Computers, 2007, 2, .	0.4	9
120	An Approach to Digital Watermarking of Speech Signals in the Time-Frequency Domain. Proceedings ELMAR, 2006, , .	0.0	0
121	Feature Extraction From Underwater Signals Using Time-Frequency Warping Operators. IEEE Journal of Oceanic Engineering, 2006, 31, 628-645.	3.8	26
122	Time-Frequency Characterization using Instantaneous Moment Concept : Theory and Applications. , 2006, , .		0
123	Time-Frequency Analysis Using Warped-Based High-Order Phase Modeling. Eurasip Journal on Advances in Signal Processing, 2005, 2005, 1.	1.7	24
124	On the signal interference structure generated by modified wigner-ville distribution. , 2002, , .		1
125	Modelling of Signal's Time-Frequency Content Using Warped Complex-Time Distributions. , 0, , .		2
126	Time-Frequency Detection Using Gabor Filter Bank and Viterbi Based Grouping Algorithm. , 0, , .		12