Jerome Antoni

List of Publications by Year
in descending order

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77 papers	8,876 citations	147726 31 h-index	91828 69 g-index
77 all docs	77 docs citations	77 times ranked	2981 citing authors

#	Article	IF	Citations
1	Standalone Extraction of Tonal Components from Aeroacoustic Signals. AIAA Journal, 2022, 60, 844-859.	1.5	7
2	Stand-Alone Extraction of Cyclostationary Broadband Components from Aeroacoustic Signals. AIAA Journal, 2022, 60, 1817-1832.	1.5	7
3	Low-rank Gaussian mixture modeling of space-snapshot representation of microphone array measurements for acoustic imaging in a complex noisy environment. Mechanical Systems and Signal Processing, 2022, 165, 108294.	4.4	4
4	Multi-harmonic phase demodulation method for instantaneous angular speed estimation using harmonic weighting. Mechanical Systems and Signal Processing, 2022, 167, 108533.	4.4	18
5	Fault Diagnosis of Wheelset Bearings in High-Speed Trains Using Logarithmic Short-Time Fourier Transform and Modified Self-Calibrated Residual Network. IEEE Transactions on Industrial Informatics, 2022, 18, 7285-7295.	7.2	27
6	Applied Digital Signal Processing. , 2022, , 1-81.		0
7	Infogram performance analysis and its enhancement for bearings diagnostics in presence of non-Gaussian noise. Mechanical Systems and Signal Processing, 2022, 170, 108764.	4.4	19
8	Cavitation Characterization of Fluid Machinery Based On Cyclostationary Analysis: Part 2-Cavity Development Evaluation by Modulation Intensity. Journal of Fluids Engineering, Transactions of the ASME, 2022, , .	0.8	0
9	Cavitation Characterization of Fluid Machinery Based on Cyclostationary Analysis: Part I-Cavity Type Identification by Carrier Distribution. Journal of Fluids Engineering, Transactions of the ASME, 2022, , .	0.8	1
10	Applied Digital Signal Processing. , 2022, , 149-228.		0
11	Robust Spectral Peaks Detection in Vibration and Acoustic Signals. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-13.	2.4	2
12	The acoustic inverse problem in the framework of alternating direction method of multipliers. Mechanical Systems and Signal Processing, 2021, 149, 107220.	4.4	20
13	An Improved Key-Phase-Free Blade Tip-Timing Technique for Nonstationary Test Conditions and Its Application on Large-Scale Centrifugal Compressor Blades. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-16.	2.4	4
14	A Critical Overview of the â€œFilterbank-Feature-Decisionâ€•Methodology in Machine Condition Monitoring. Acoustics Australia, 2021, 49, 177-184.	1.4	13
15	A Bayesian approach for the separation of the acoustic and the correlated aerodynamic wall pressure fluctuations. Journal of the Acoustical Society of America, 2021, 149, 4410-4421.	0.5	1
16	The Enkurgram: A characteristic frequency extraction method for fluid machinery based on multi-band demodulation strategy. Mechanical Systems and Signal Processing, 2021, 155, 107564.	4.4	31
17	A Bayesian approach to eliminate correlated noise using an independent referenceâ€”Application to supersonic jet noise extraction. Journal of the Acoustical Society of America, 2021, 150, 1844-1855.	0.5	4
18	Generalized spectral coherence for cyclostationary signals with <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"><mml:mrow><mml:mi>Î±</mml:mi></mml:mrow></mml:math>-stable distribution. Mechanical Systems and Signal Processing, 2021, 159, 107737.	4.4	22

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19	Prediction and analysis of excitation sources of car booming noise through a Bayesian meta-model. Journal of Sound and Vibration, 2021, 510, 116228.	2.1	0
20	Key-Phase-Free Blade Tip-Timing for Nonstationary Test Conditions: An Improved Algorithm for the Vibration Monitoring of a SAFRAN Turbomachine from the Surveillance 9 International Conference Contest. Machines, 2021, 9, 235.	1.2	2
21	Extraction of second-order cyclostationary sources by matching instantaneous power spectrum with stochastic model â€“ application to wind turbine gearbox. Renewable Energy, 2020, 147, 1739-1758.	4.3	13
22	Blind filters based on envelope spectrum sparsity indicators for bearing and gear vibration-based condition monitoring. Mechanical Systems and Signal Processing, 2020, 138, 106556.	4.4	100
23	Mean Shift Clustering-Based Analysis of Nonstationary Vibration Signals for Machinery Diagnostics. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4056-4066.	2.4	15
24	Data-driven identification of rotating machines using ARMA deterministic parameter evolution in the angle/time domain. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	0.8	0
25	A probabilistic approach for cross-spectral matrix denoising: Benchmarking with some recent methods. Journal of the Acoustical Society of America, 2020, 147, 3108-3123.	0.5	15
26	Improved Envelope Spectrum via Feature Optimisation-gram (IESFOgram): A novel tool for rolling element bearing diagnostics under non-stationary operating conditions. Mechanical Systems and Signal Processing, 2020, 144, 106891.	4.4	82
27	Applied Digital Signal Processing. , 2020, , 1-81.		1
28	Extraction and imaging of aerodynamically generated sound field of rotor blades in the wind tunnel test. Mechanical Systems and Signal Processing, 2019, 116, 1017-1028.	4.4	22
29	Cyclostationary approach to detect flow-induced effects on vibration signals from centrifugal pumps. Mechanical Systems and Signal Processing, 2019, 114, 275-289.	4.4	38
30	A statistical methodology for the design of condition indicators. Mechanical Systems and Signal Processing, 2019, 114, 290-327.	4.4	126
31	The spectral amplitude modulation: A nonlinear filtering process for diagnosis of rolling element bearings. Mechanical Systems and Signal Processing, 2019, 132, 253-276.	4.4	27
32	Fast iteration algorithms for implementing the acoustic beamforming of non-synchronous measurements. Mechanical Systems and Signal Processing, 2019, 134, 106309.	4.4	32
33	Sparse acoustical holography from iterated Bayesian focusing. Journal of Sound and Vibration, 2019, 446, 289-325.	2.1	43
34	Filtered evelope spectrum using short periodograms for bearing fault identification under variable speed. Mechanisms and Machine Science, 2019, , 4157-4166.	0.3	2
35	Review and comparison of tacholess instantaneous speed estimation methods on experimental vibration data. Mechanical Systems and Signal Processing, 2019, 129, 407-436.	4.4	88
36	Self-running bearing diagnosis based on scalar indicator using fast order frequency spectral coherence. Measurement: Journal of the International Measurement Confederation, 2019, 138, 467-484.	2.5	19

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37	Mapping uncertainties involved in sound source reconstruction with a cross-spectral-matrix-based Gibbs sampler. Journal of the Acoustical Society of America, 2019, 146, 4947-4961.	0.5	12
38	Reconstruction of cyclostationary sound source based on a back-propagating cyclic wiener filter. Journal of Sound and Vibration, 2019, 442, 787-799.	2.1	10
39	Separation and identification of structural modes in largely underdetermined scenarios using frequency banding. Journal of Sound and Vibration, 2018, 414, 192-217.	2.1	11
40	Low-rank and sparse model: A new perspective for rolling element bearing diagnosis. , 2018, , .		4
41	Bearing Signal Enhancement Using Taylor-<inline-formula> <tex-math notation="LaTeX">H_{infty} </tex-math> </inline-formula> Estimator Under Variable Speed Condition. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 2538-2547.	2.4	5
42	Semi-automated diagnosis of bearing faults based on a hidden Markov model of the vibration signals. Measurement: Journal of the International Measurement Confederation, 2018, 127, 141-166.	2.5	55
43	Blind deconvolution based on cyclostationarity maximization and its application to fault identification. Journal of Sound and Vibration, 2018, 432, 569-601.	2.1	164
44	Feedback on the Surveillance 8 challenge: Vibration-based diagnosis of a Safran aircraft engine. Mechanical Systems and Signal Processing, 2017, 97, 112-144.	4.4	82
45	Fast computation of the spectral correlation. Mechanical Systems and Signal Processing, 2017, 92, 248-277.	4.4	249
46	Interpretation and generalization of complexity pursuit for the blind separation of modal contributions. Mechanical Systems and Signal Processing, 2017, 85, 773-788.	4.4	24
47	A multi-order probabilistic approach for Instantaneous Angular Speed tracking debriefing of the CMMNO×314 diagnosis contest. Mechanical Systems and Signal Processing, 2016, 81, 375-386.	4.4	91
48	Non-intrusive rattle noise detection in non-stationary conditions by an angle/time cyclostationary approach. Journal of Sound and Vibration, 2016, 366, 501-513.	2.1	17
49	Iterative beamforming for identification of multiple broadband sound sources. Journal of Sound and Vibration, 2016, 365, 260-275.	2.1	27
50	The infogram: Entropic evidence of the signature of repetitive transients. Mechanical Systems and Signal Processing, 2016, 74, 73-94.	4.4	438
51	Estimation of multiple sound sources with data and model uncertainties using the EM and evidential EM algorithms. Mechanical Systems and Signal Processing, 2016, 66-67, 159-177.	4.4	29
52	Angle<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll"><mml:mrow><mml:mo>â§¹</mml:mo></mml:mrow></mml:math>time cyclostationarity for the analysis of rolling element bearing vibrations. Measurement: Journal of the International Measurement Confederation, 2015, 75, 29-39.	2.5	60
53	Speed Transform, a New Time-Varying Frequency Analysis Technique. Lecture Notes in Mechanical Engineering, 2014, , 23-35.	0.3	10
54	Vibration based condition monitoring of a multistage epicyclic gearbox in lifting cranes. Mechanical Systems and Signal Processing, 2014, 42, 351-367.	4.4	67

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55	Integrated modulation intensity distribution as a practical tool for condition monitoring. Applied Acoustics, 2014, 77, 184-194.	1.7	24
56	Time-Angle Periodically Correlated Processes. Lecture Notes in Mechanical Engineering, 2014, , 3-14.	0.3	12
57	Wavelet-based non-stationary near-field acoustical holography. Applied Acoustics, 2013, 74, 1226-1233.	1.7	9
58	A two-step procedure for estimation of instantaneous rotational speed with large fluctuations. Mechanical Systems and Signal Processing, 2013, 38, 96-102.	4.4	140
59	Acoustic source identification: Experimenting the â„“1 minimization approach. Applied Acoustics, 2013, 74, 974-986.	1.7	35
60	Sound Source Localization from Uncertain Information Using the Evidential EM Algorithm. Lecture Notes in Computer Science, 2013, , 162-175.	1.0	2
61	Detection of Surface Ships From Interception of Cyclostationary Signature With the Cyclic Modulation Coherence. IEEE Journal of Oceanic Engineering, 2012, 37, 478-493.	2.1	85
62	Bayesian space-frequency separation of wide-band sound sources by a hierarchical approach. Journal of the Acoustical Society of America, 2012, 132, 3240-3250.	0.5	10
63	A Bayesian approach to sound source reconstruction: Optimal basis, regularization, and focusing. Journal of the Acoustical Society of America, 2012, 131, 2873-2890.	0.5	139
64	Detection of signal component modulations using modulation intensity distribution. Mechanical Systems and Signal Processing, 2012, 28, 399-413.	4.4	49
65	Rolling element bearing diagnosticsâ€”A tutorial. Mechanical Systems and Signal Processing, 2011, 25, 485-520.	4.4	1,812
66	Orthogonal-like fractional-octave-band filters. Journal of the Acoustical Society of America, 2010, 127, 884-895.	0.5	10
67	Investigation of Rotor Wake Turbulence Through Cyclostationary Spectral Analysis. AIAA Journal, 2009, 47, 2022-2030.	1.5	40
68	Cyclostationarity by examples. Mechanical Systems and Signal Processing, 2009, 23, 987-1036.	4.4	497
69	Indicators of cyclostationarity: Theory and application to gear fault monitoring. Mechanical Systems and Signal Processing, 2008, 22, 574-587.	4.4	135
70	Blind extraction of a cyclostationary signal using reduced-rank cyclic regressionâ€”A unifying approach. Mechanical Systems and Signal Processing, 2008, 22, 520-541.	4.4	40
71	Fast computation of the kurtogram for the detection of transient faults. Mechanical Systems and Signal Processing, 2007, 21, 108-124.	4.4	1,135
72	Cyclic spectral analysis in practice. Mechanical Systems and Signal Processing, 2007, 21, 597-630.	4.4	285

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73	The spectral kurtosis: a useful tool for characterising non-stationary signals. Mechanical Systems and Signal Processing, 2006, 20, 282-307.	4.4	989
74	The spectral kurtosis: application to the vibratory surveillance and diagnostics of rotating machines. Mechanical Systems and Signal Processing, 2006, 20, 308-331.	4.4	978
75	Blind separation of vibration components: Principles and demonstrations. Mechanical Systems and Signal Processing, 2005, 19, 1166-1180.	4.4	243
76	A subspace method for the blind extraction of a cyclostationary source: Application to rolling element bearing diagnostics. Mechanical Systems and Signal Processing, 2005, 19, 1245-1259.	4.4	47
77	A reference-free mill monitoring method based on the inter-insert periodic correlation in angular domain. International Journal of Advanced Manufacturing Technology, 0, , .	1.5	0