

# 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	Rolling element bearing diagnostics – A tutorial. <i>Mechanical Systems and Signal Processing</i> , 2011, 25, 485-520.	4.4	1,812
2	Fast computation of the kurtogram for the detection of transient faults. <i>Mechanical Systems and Signal Processing</i> , 2007, 21, 108-124.	4.4	1,135
3	The spectral kurtosis: a useful tool for characterising non-stationary signals. <i>Mechanical Systems and Signal Processing</i> , 2006, 20, 282-307.	4.4	989
4	The spectral kurtosis: application to the vibratory surveillance and diagnostics of rotating machines. <i>Mechanical Systems and Signal Processing</i> , 2006, 20, 308-331.	4.4	978
5	Cyclostationarity by examples. <i>Mechanical Systems and Signal Processing</i> , 2009, 23, 987-1036.	4.4	497
6	The infogram: Entropic evidence of the signature of repetitive transients. <i>Mechanical Systems and Signal Processing</i> , 2016, 74, 73-94.	4.4	438
7	Cyclic spectral analysis in practice. <i>Mechanical Systems and Signal Processing</i> , 2007, 21, 597-630.	4.4	285
8	Fast computation of the spectral correlation. <i>Mechanical Systems and Signal Processing</i> , 2017, 92, 248-277.	4.4	249
9	Blind separation of vibration components: Principles and demonstrations. <i>Mechanical Systems and Signal Processing</i> , 2005, 19, 1166-1180.	4.4	243
10	Blind deconvolution based on cyclostationarity maximization and its application to fault identification. <i>Journal of Sound and Vibration</i> , 2018, 432, 569-601.	2.1	164
11	A two-step procedure for estimation of instantaneous rotational speed with large fluctuations. <i>Mechanical Systems and Signal Processing</i> , 2013, 38, 96-102.	4.4	140
12	A Bayesian approach to sound source reconstruction: Optimal basis, regularization, and focusing. <i>Journal of the Acoustical Society of America</i> , 2012, 131, 2873-2890.	0.5	139
13	Indicators of cyclostationarity: Theory and application to gear fault monitoring. <i>Mechanical Systems and Signal Processing</i> , 2008, 22, 574-587.	4.4	135
14	A statistical methodology for the design of condition indicators. <i>Mechanical Systems and Signal Processing</i> , 2019, 114, 290-327.	4.4	126
15	Blind filters based on envelope spectrum sparsity indicators for bearing and gear vibration-based condition monitoring. <i>Mechanical Systems and Signal Processing</i> , 2020, 138, 106556.	4.4	100
16	A multi-order probabilistic approach for Instantaneous Angular Speed tracking debriefing of the CMMNO <sup>3</sup> 14 diagnosis contest. <i>Mechanical Systems and Signal Processing</i> , 2016, 81, 375-386.	4.4	91
17	Review and comparison of tacholess instantaneous speed estimation methods on experimental vibration data. <i>Mechanical Systems and Signal Processing</i> , 2019, 129, 407-436.	4.4	88
18	Detection of Surface Ships From Interception of Cyclostationary Signature With the Cyclic Modulation Coherence. <i>IEEE Journal of Oceanic Engineering</i> , 2012, 37, 478-493.	2.1	85

#	ARTICLE	IF	CITATIONS
19	Feedback on the Surveillance 8 challenge: Vibration-based diagnosis of a Safran aircraft engine. <i>Mechanical Systems and Signal Processing</i> , 2017, 97, 112-144.	4.4	82
20	Improved Envelope Spectrum via Feature Optimisation-gram (IESFOgram): A novel tool for rolling element bearing diagnostics under non-stationary operating conditions. <i>Mechanical Systems and Signal Processing</i> , 2020, 144, 106891.	4.4	82
21	Vibration based condition monitoring of a multistage epicyclic gearbox in lifting cranes. <i>Mechanical Systems and Signal Processing</i> , 2014, 42, 351-367.	4.4	67
22	Angle $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.gif" overflow="scroll" \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mo} \rangle \hat{s}^1 \langle \text{mml:mo} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle \text{time}$ cyclostationarity for the analysis of rolling element bearing vibrations. <i>Measurement: Journal of the International Measurement Confederation</i> , 2015, 75, 29-39.	2.5	60
23	Semi-automated diagnosis of bearing faults based on a hidden Markov model of the vibration signals. <i>Measurement: Journal of the International Measurement Confederation</i> , 2018, 127, 141-166.	2.5	55
24	Detection of signal component modulations using modulation intensity distribution. <i>Mechanical Systems and Signal Processing</i> , 2012, 28, 399-413.	4.4	49
25	A subspace method for the blind extraction of a cyclostationary source: Application to rolling element bearing diagnostics. <i>Mechanical Systems and Signal Processing</i> , 2005, 19, 1245-1259.	4.4	47
26	Sparse acoustical holography from iterated Bayesian focusing. <i>Journal of Sound and Vibration</i> , 2019, 446, 289-325.	2.1	43
27	Blind extraction of a cyclostationary signal using reduced-rank cyclic regression "A unifying approach. <i>Mechanical Systems and Signal Processing</i> , 2008, 22, 520-541.	4.4	40
28	Investigation of Rotor Wake Turbulence Through Cyclostationary Spectral Analysis. <i>AIAA Journal</i> , 2009, 47, 2022-2030.	1.5	40
29	Cyclostationary approach to detect flow-induced effects on vibration signals from centrifugal pumps. <i>Mechanical Systems and Signal Processing</i> , 2019, 114, 275-289.	4.4	38
30	Acoustic source identification: Experimenting the $\hat{\sigma}_1$ minimization approach. <i>Applied Acoustics</i> , 2013, 74, 974-986.	1.7	35
31	Fast iteration algorithms for implementing the acoustic beamforming of non-synchronous measurements. <i>Mechanical Systems and Signal Processing</i> , 2019, 134, 106309.	4.4	32
32	The Enkurgram: A characteristic frequency extraction method for fluid machinery based on multi-band demodulation strategy. <i>Mechanical Systems and Signal Processing</i> , 2021, 155, 107564.	4.4	31
33	Estimation of multiple sound sources with data and model uncertainties using the EM and evidential EM algorithms. <i>Mechanical Systems and Signal Processing</i> , 2016, 66-67, 159-177.	4.4	29
34	Iterative beamforming for identification of multiple broadband sound sources. <i>Journal of Sound and Vibration</i> , 2016, 365, 260-275.	2.1	27
35	The spectral amplitude modulation: A nonlinear filtering process for diagnosis of rolling element bearings. <i>Mechanical Systems and Signal Processing</i> , 2019, 132, 253-276.	4.4	27
36	Fault Diagnosis of Wheelset Bearings in High-Speed Trains Using Logarithmic Short-Time Fourier Transform and Modified Self-Calibrated Residual Network. <i>IEEE Transactions on Industrial Informatics</i> , 2022, 18, 7285-7295.	7.2	27

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37	Integrated modulation intensity distribution as a practical tool for condition monitoring. Applied Acoustics, 2014, 77, 184-194.	1.7	24
38	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
39	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
40	Generalized spectral coherence for cyclostationary signals with $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si1.svg"} \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \pm \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ -stable distribution. Mechanical Systems and Signal Processing, 2021, 159, 107737.	4.4	22
41	The acoustic inverse problem in the framework of alternating direction method of multipliers. Mechanical Systems and Signal Processing, 2021, 149, 107220.	4.4	20
42	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
43	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
44	Multi-harmonic phase demodulation method for instantaneous angular speed estimation using harmonic weighting. Mechanical Systems and Signal Processing, 2022, 167, 108533.	4.4	18
45	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
46	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
47	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
48	Extraction of second-order cyclostationary sources by matching instantaneous power spectrum with stochastic model " application to wind turbine gearbox. Renewable Energy, 2020, 147, 1739-1758.	4.3	13
49	A Critical Overview of the "Filterbank-Feature-Decision" Methodology in Machine Condition Monitoring. Acoustics Australia, 2021, 49, 177-184.	1.4	13
50	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
51	Time-Angle Periodically Correlated Processes. Lecture Notes in Mechanical Engineering, 2014, , 3-14.	0.3	12
52	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
53	Orthogonal-like fractional-octave-band filters. Journal of the Acoustical Society of America, 2010, 127, 884-895.	0.5	10
54	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

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55	Speed Transform, a New Time-Varying Frequency Analysis Technique. Lecture Notes in Mechanical Engineering, 2014, , 23-35.	0.3	10
56	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
57	Wavelet-based non-stationary near-field acoustical holography. Applied Acoustics, 2013, 74, 1226-1233.	1.7	9
58	Standalone Extraction of Tonal Components from Aeroacoustic Signals. AIAA Journal, 2022, 60, 844-859.	1.5	7
59	Stand-Alone Extraction of Cyclostationary Broadband Components from Aeroacoustic Signals. AIAA Journal, 2022, 60, 1817-1832.	1.5	7
60	Bearing Signal Enhancement Using Taylor- $\infty$ Estimator Under Variable Speed Condition. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 2538-2547.	2.4	5
61	Low-rank and sparse model: A new perspective for rolling element bearing diagnosis. , 2018, , .		4
62	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
63	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
64	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
65	Filtered envelope spectrum using short periodograms for bearing fault identification under variable speed. Mechanisms and Machine Science, 2019, , 4157-4166.	0.3	2
66	Sound Source Localization from Uncertain Information Using the Evidential EM Algorithm. Lecture Notes in Computer Science, 2013, , 162-175.	1.0	2
67	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
68	Robust Spectral Peaks Detection in Vibration and Acoustic Signals. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-13.	2.4	2
69	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
70	Applied Digital Signal Processing. , 2020, , 1-81.		1
71	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
72	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

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73	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
74	Applied Digital Signal Processing. , 2022, , 1-81.		0
75	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
76	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
77	Applied Digital Signal Processing. , 2022, , 149-228.		0