

# Yanyang Zi

## List of Publications by Year in descending order

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112  
papers

5,116  
citations

136885

32  
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91828

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112  
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112  
docs citations

112  
times ranked

3409  
citing authors

#	ARTICLE	IF	CITATIONS
1	Wavelet transform based on inner product in fault diagnosis of rotating machinery: A review. <i>Mechanical Systems and Signal Processing</i> , 2016, 70-71, 1-35.	4.4	379
2	Fault diagnosis of rotating machinery based on improved wavelet package transform and SVMs ensemble. <i>Mechanical Systems and Signal Processing</i> , 2007, 21, 688-705.	4.4	340
3	Generator bearing fault diagnosis for wind turbine via empirical wavelet transform using measured vibration signals. <i>Renewable Energy</i> , 2016, 89, 80-92.	4.3	305
4	A Two-Stage Data-Driven-Based Prognostic Approach for Bearing Degradation Problem. <i>IEEE Transactions on Industrial Informatics</i> , 2016, 12, 924-932.	7.2	251
5	Application of an intelligent classification method to mechanical fault diagnosis. <i>Expert Systems With Applications</i> , 2009, 36, 9941-9948.	4.4	219
6	Enhancement of signal denoising and multiple fault signatures detecting in rotating machinery using dual-tree complex wavelet transform. <i>Mechanical Systems and Signal Processing</i> , 2010, 24, 119-137.	4.4	206
7	LiftingNet: A Novel Deep Learning Network With Layerwise Feature Learning From Noisy Mechanical Data for Fault Classification. <i>IEEE Transactions on Industrial Electronics</i> , 2018, 65, 4973-4982.	5.2	204
8	A multidimensional hybrid intelligent method for gear fault diagnosis. <i>Expert Systems With Applications</i> , 2010, 37, 1419-1430.	4.4	192
9	Automatic fault feature extraction of mechanical anomaly on induction motor bearing using ensemble super-wavelet transform. <i>Mechanical Systems and Signal Processing</i> , 2015, 54-55, 457-480.	4.4	164
10	A Comparative Study on the Local Mean Decomposition and Empirical Mode Decomposition and Their Applications to Rotating Machinery Health Diagnosis. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2010, 132, .	1.0	154
11	An improved time-varying mesh stiffness algorithm and dynamic modeling of gear-rotor system with tooth root crack. <i>Engineering Failure Analysis</i> , 2014, 42, 157-177.	1.8	148
12	Mesh stiffness calculation using an accumulated integral potential energy method and dynamic analysis of helical gears. <i>Mechanism and Machine Theory</i> , 2015, 92, 447-463.	2.7	141
13	Mono-component feature extraction for mechanical fault diagnosis using modified empirical wavelet transform via data-driven adaptive Fourier spectrum segment. <i>Mechanical Systems and Signal Processing</i> , 2016, 72-73, 160-183.	4.4	127
14	Sparsity-based algorithm for detecting faults in rotating machines. <i>Mechanical Systems and Signal Processing</i> , 2016, 72-73, 46-64.	4.4	118
15	Multiwavelet transform and its applications in mechanical fault diagnosis – A review. <i>Mechanical Systems and Signal Processing</i> , 2014, 43, 1-24.	4.4	110
16	Fault feature extraction of gearbox by using overcomplete rational dilation discrete wavelet transform on signals measured from vibration sensors. <i>Mechanical Systems and Signal Processing</i> , 2012, 33, 275-298.	4.4	107
17	Weak fault signature extraction of rotating machinery using flexible analytic wavelet transform. <i>Mechanical Systems and Signal Processing</i> , 2015, 64-65, 162-187.	4.4	104
18	Detecting of transient vibration signatures using an improved fast spatial – spectral ensemble kurtosis kurtogram and its applications to mechanical signature analysis of short duration data from rotating machinery. <i>Mechanical Systems and Signal Processing</i> , 2013, 40, 1-37.	4.4	89

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19	Multiwavelet denoising with improved neighboring coefficients for application on rolling bearing fault diagnosis. <i>Mechanical Systems and Signal Processing</i> , 2011, 25, 285-304.	4.4	86
20	A demodulating approach based on local mean decomposition and its applications in mechanical fault diagnosis. <i>Measurement Science and Technology</i> , 2011, 22, 055704.	1.4	68
21	Compound faults detection of rotating machinery using improved adaptive redundant lifting multiwavelet. <i>Mechanical Systems and Signal Processing</i> , 2013, 38, 36-54.	4.4	66
22	Multifractal entropy based adaptive multiwavelet construction and its application for mechanical compound-fault diagnosis. <i>Mechanical Systems and Signal Processing</i> , 2016, 76-77, 742-758.	4.4	64
23	Repetitive transients extraction algorithm for detecting bearing faults. <i>Mechanical Systems and Signal Processing</i> , 2017, 84, 227-244.	4.4	61
24	Tunable Q-factor wavelet transform denoising with neighboring coefficients and its application to rotating machinery fault diagnosis. <i>Science China Technological Sciences</i> , 2013, 56, 1956-1965.	2.0	59
25	Detection of faults in rotating machinery using periodic time-frequency sparsity. <i>Journal of Sound and Vibration</i> , 2016, 382, 357-378.	2.1	57
26	Wind turbine fault detection using multiwavelet denoising with the data-driven block threshold. <i>Applied Acoustics</i> , 2014, 77, 122-129.	1.7	56
27	Gear fault detection using customized multiwavelet lifting schemes. <i>Mechanical Systems and Signal Processing</i> , 2010, 24, 1509-1528.	4.4	54
28	Switching State-Space Degradation Model With Recursive Filter/Smoother for Prognostics of Remaining Useful Life. <i>IEEE Transactions on Industrial Informatics</i> , 2019, 15, 822-832.	7.2	44
29	Sparsity-based signal extraction using dual Q-factors for gearbox fault detection. <i>ISA Transactions</i> , 2018, 79, 147-160.	3.1	42
30	Adaptive multiwavelets via two-scale similarity transforms for rotating machinery fault diagnosis. <i>Mechanical Systems and Signal Processing</i> , 2009, 23, 1490-1508.	4.4	41
31	Multiwavelet construction via an adaptive symmetric lifting scheme and its applications for rotating machinery fault diagnosis. <i>Measurement Science and Technology</i> , 2009, 20, 045103.	1.4	38
32	A 3D finite element-based model order reduction method for parametric resonance and whirling analysis of anisotropic rotor-bearing systems. <i>Journal of Sound and Vibration</i> , 2015, 359, 116-135.	2.1	38
33	Fault diagnosis of rotating machinery based on a new hybrid clustering algorithm. <i>International Journal of Advanced Manufacturing Technology</i> , 2008, 35, 968-977.	1.5	35
34	Rotating machinery fault diagnosis using signal-adapted lifting scheme. <i>Mechanical Systems and Signal Processing</i> , 2008, 22, 542-556.	4.4	32
35	A comprehensive investigation of lithium-ion battery degradation performance at different discharge rates. <i>Journal of Power Sources</i> , 2019, 443, 227108.	4.0	30
36	Adaptive redundant multiwavelet denoising with improved neighboring coefficients for gearbox fault detection. <i>Mechanical Systems and Signal Processing</i> , 2013, 38, 549-568.	4.4	29

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37	Sifting process of EMD and its application in rolling element bearing fault diagnosis. Journal of Mechanical Science and Technology, 2009, 23, 2000-2007.	0.7	28
38	Improved spectral kurtosis with adaptive redundant multiwavelet packet and its applications for rotating machinery fault detection. Measurement Science and Technology, 2012, 23, 045608.	1.4	28
39	Construction of adaptive redundant multiwavelet packet and its application to compound faults detection of rotating machinery. Science China Technological Sciences, 2012, 55, 2083-2090.	2.0	28
40	Customized Multiwavelets for Planetary Gearbox Fault Detection Based on Vibration Sensor Signals. Sensors, 2013, 13, 1183-1209.	2.1	28
41	Intelligent Diagnosis of V-Type Marine Diesel Engines Based on Multifeatures Extracted From Instantaneous Crankshaft Speed. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 722-740.	2.4	27
42	Planetary gearbox condition monitoring of ship-based satellite communication antennas using ensemble multiwavelet analysis method. Mechanical Systems and Signal Processing, 2015, 54-55, 277-292.	4.4	26
43	A novel vibration modeling method for a rotating blade with breathing cracks. Science China Technological Sciences, 2019, 62, 333-348.	2.0	26
44	A novel approach to machining condition monitoring of deep hole boring. International Journal of Machine Tools and Manufacture, 2014, 77, 27-33.	6.2	25
45	A Fault Detection and Health Monitoring Scheme for Ship Propulsion Systems Using SVM Technique. IEEE Access, 2018, 6, 16207-16215.	2.6	24
46	Data-driven mono-component feature identification via modified nonlocal means and MEWT for mechanical drivetrain fault diagnosis. Mechanical Systems and Signal Processing, 2016, 80, 533-552.	4.4	23
47	Effects of unbalance on the nonlinear dynamics of rotors with transverse cracks. Nonlinear Dynamics, 2018, 91, 2755-2772.	2.7	23
48	Customized maximal-overlap multiwavelet denoising with data-driven group threshold for condition monitoring of rolling mill drivetrain. Mechanical Systems and Signal Processing, 2016, 68-69, 44-67.	4.4	21
49	Gearbox fault diagnosis of rolling mills using multiwavelet sliding window neighboring coefficient denoising and optimal blind deconvolution. Science in China Series D: Earth Sciences, 2009, 52, 2801-2809.	0.9	20
50	Optimization-Based Approach for the Inverse Design of Ribbon-Shaped Three-Dimensional Structures Assembled Through Compressive Buckling. Physical Review Applied, 2019, 11, .	1.5	20
51	A data-driven threshold for wavelet sliding window denoising in mechanical fault detection. Science China Technological Sciences, 2014, 57, 589-597.	2.0	19
52	Effects of multiple cracks on the forced response of centrifugal impellers. Mechanical Systems and Signal Processing, 2015, 60-61, 326-343.	4.4	19
53	A Novel Multitask Adversarial Network via Redundant Lifting for Multicomponent Intelligent Fault Detection Under Sharp Speed Variation. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	2.4	19
54	Incremental Novelty Identification From Initially One-Class Learning to Unknown Abnormality Classification. IEEE Transactions on Industrial Electronics, 2022, 69, 7394-7404.	5.2	18

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55	Reduced-order modeling for mistuned centrifugal impellers with crack damages. <i>Journal of Sound and Vibration</i> , 2014, 333, 6979-6995.	2.1	17
56	Reprogrammable 3D Mesostructures Through Compressive Buckling of Thin Films with Prestrained Shape Memory Polymer. <i>Acta Mechanica Solida Sinica</i> , 2018, 31, 589-598.	1.0	17
57	A pseudo wavelet system-based vibration signature extracting method for rotating machinery fault detection. <i>Science China Technological Sciences</i> , 2013, 56, 1294-1306.	2.0	16
58	Ensemble Noise-Reconstructed Empirical Mode Decomposition for Mechanical Fault Detection. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2013, 135, .	1.0	16
59	Whitening-Net: A Generalized Network to Diagnose the Faults Among Different Machines and Conditions. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2022, 33, 5845-5858.	7.2	15
60	Construction and selection of lifting-based multiwavelets for mechanical fault detection. <i>Mechanical Systems and Signal Processing</i> , 2013, 40, 571-588.	4.4	13
61	Blade damage monitoring method base on frequency domain statistical index of shaft's random vibration. <i>Mechanical Systems and Signal Processing</i> , 2022, 165, 108351.	4.4	13
62	An Inverse Design Method of Buckling-Guided Assembly for Ribbon-Type 3D Structures. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2020, 87, .	1.1	13
63	Health Indicator Construction Method of Bearings Based on Wasserstein Dual-Domain Adversarial Networks Under Normal Data Only. <i>IEEE Transactions on Industrial Electronics</i> , 2022, 69, 10615-10624.	5.2	13
64	Periodic Impulsive Fault Feature Extraction of Rotating Machinery Using Dual-Tree Rational Dilation Complex Wavelet Transform. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2014, 136, .	1.3	12
65	Construction of customized redundant multiwavelet via increasing multiplicity for fault detection of rotating machinery. <i>Mechanical Systems and Signal Processing</i> , 2014, 42, 206-224.	4.4	12
66	A Local Weighted Multi-instance Multi-label Network for Fault Diagnosis of Rolling Bearings Using Encoder Signal. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2020, , 1-1.	2.4	12
67	The principle of second generation wavelet for milling cutter breakage detection. <i>Science in China Series D: Earth Sciences</i> , 2009, 52, 1312-1322.	0.9	11
68	Reduced-order modeling for rotating rotor-bearing systems with cracked impellers using three-dimensional finite element models. <i>Journal of Sound and Vibration</i> , 2015, 355, 305-321.	2.1	11
69	A sensor-dependent vibration data driven fault identification method via autonomous variational mode decomposition for transmission system of shipborne antenna. <i>Sensors and Actuators A: Physical</i> , 2018, 279, 376-389.	2.0	11
70	Lithium-ion Battery SOH Estimation and Fault Diagnosis with Missing Data. , 2019, , .		11
71	Application of support vector machine for equipment reliability forecasting. , 2008, , .		10
72	An Enhanced Data Visualization Method for Diesel Engine Malfunction Classification Using Multi-Sensor Signals. <i>Sensors</i> , 2015, 15, 26675-26693.	2.1	10

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73	Modified breathing mechanism model and phase waterfall plot diagnostic method for cracked rotors. <i>Journal of Mechanical Science and Technology</i> , 2018, 32, 2527-2539.	0.7	10
74	Customized lifting multiwavelet packet information entropy for equipment condition identification. <i>Smart Materials and Structures</i> , 2013, 22, 095022.	1.8	9
75	Improved Ensemble Superwavelet Transform for Vibration-Based Machinery Fault Diagnosis. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2016, 138, .	1.3	9
76	Enhancement of fault vibration signature analysis for rotary machines using an improved wavelet-based periodic group-sparse signal estimation technique. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2018, 232, 941-951.	1.1	9
77	A Novel Underdetermined Blind Source Separation Method and Its Application to Source Contribution Quantitative Estimation. <i>Sensors</i> , 2019, 19, 1413.	2.1	9
78	An energy time-convexity second-order synchrosqueezing transform and application in weak fault diagnosis of rolling bearings in an aerospace engine. <i>Measurement Science and Technology</i> , 2020, 31, 125105.	1.4	9
79	A Bilateral Second-Order Synchrosqueezing Transform and Application to Vibration Monitoring of Aerospace Engine. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-15.	2.4	9
80	Causal Disentanglement: A Generalized Bearing Fault Diagnostic Framework in Continuous Degradation Mode. <i>IEEE Transactions on Neural Networks and Learning Systems</i> , 2023, 34, 6250-6262.	7.2	9
81	Inverse design strategies for buckling-guided assembly of 3D surfaces based on topology optimization. <i>Extreme Mechanics Letters</i> , 2022, 51, 101582.	2.0	9
82	Wavelet Transform Based on Inner Product for Fault Diagnosis of Rotating Machinery. <i>Smart Sensors, Measurement and Instrumentation</i> , 2017, , 65-91.	0.4	8
83	A Dual-Guided Adaptive Decomposition Method of Fault Information and Fault Sensitivity for Multi-Component Fault Diagnosis Under Varying Speeds. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2022, 71, 1-15.	2.4	8
84	Mechanism explanation and experimental verification of a new modulation frequency characteristic in a disturbed crack rotor. <i>Nonlinear Dynamics</i> , 2019, 95, 597-616.	2.7	7
85	Performance-guided maintenance policy and optimization for transmission system of shipborne antenna with multiple components. <i>Ocean Engineering</i> , 2020, 199, 106903.	1.9	7
86	A Current Signal-Based Adaptive Semisupervised Framework for Bearing Faults Diagnosis in Drivetrains. <i>IEEE Transactions on Instrumentation and Measurement</i> , 2021, 70, 1-12.	2.4	7
87	A New Concept of Instantaneous Whirling Speed for Cracked Rotor's Axis Orbit. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 4120.	1.3	6
88	Post-nonlinear blind source separation with kurtosis constraints using augmented Lagrangian particle swarm optimization and its application to mechanical systems. <i>JVC/Journal of Vibration and Control</i> , 2019, 25, 2246-2260.	1.5	6
89	Multi-scale and multi-pooling sparse filtering: A simple and effective representation learning method for intelligent fault diagnosis. <i>Neurocomputing</i> , 2021, 451, 138-151.	3.5	6
90	Incipient-signature identification of mechanical anomalies in a ship-borne satellite antenna system using an ensemble multiwavelet. <i>Measurement Science and Technology</i> , 2014, 25, 105006.	1.4	5

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91	Sparsity-assisted signal representation for rotating machinery fault diagnosis using the tunable Q-factor wavelet transform with overlapping group shrinkage. , 2014, , .		5
92	Multiple fault separation and detection by joint subspace learning for the health assessment of wind turbine gearboxes. <i>Frontiers of Mechanical Engineering</i> , 2017, 12, 333-347.	2.5	5
93	Phase-based spectrum analysis method for identifying weak harmonics. <i>JVC/Journal of Vibration and Control</i> , 2018, 24, 5585-5596.	1.5	5
94	A modified SOM method based on nonlinear neural weight updating for bearing fault identification in variable speed condition. <i>Journal of Mechanical Science and Technology</i> , 2020, 34, 1901-1912.	0.7	5
95	A Comparative Study on Multiwavelet Construction Methods and Customized Multiwavelet Library for Mechanical Fault Detection. <i>Shock and Vibration</i> , 2015, 2015, 1-12.	0.3	4
96	An integrated Bayesian approach to prognostics of the remaining useful life and its application on bearing degradation problem. , 2015, , .		4
97	A 3D nonlinear finite element method for the dynamic analysis of rotating rotor with a transverse crack. <i>Science China Technological Sciences</i> , 2017, 60, 219-231.	2.0	4
98	Material analysis of the fatigue mechanism of rollers in tapered roller bearings. <i>Science China Technological Sciences</i> , 2018, 61, 1003-1011.	2.0	4
99	The Next Failure Time Prediction of Escalators via Deep Neural Network with Dynamic Time Warping Preprocessing. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 5622.	1.3	4
100	A multi-branch redundant adversarial net for intelligent fault diagnosis of multiple components under drastically variable speeds. <i>ISA Transactions</i> , 2022, 129, 540-554.	3.1	4
101	An effective approach to rolling bearing diagnosis based on Adaptive Redundant Second-Generation Wavelet. <i>International Journal of Materials and Product Technology</i> , 2008, 33, 65.	0.1	3
102	Maximal-overlap adaptive multiwavelet for detecting transient vibration responses from dynastic signal of rotating machineries. <i>Science China Technological Sciences</i> , 2014, 57, 136-150.	2.0	3
103	Slider Dynamics and Wear Behaviors at Subnano-Clearance Head-Disk Interface. <i>IEEE Transactions on Magnetics</i> , 2016, 52, 1-9.	1.2	3
104	Multi-domain description method for bearing fault recognition in varying speed condition. , 2016, , .		2
105	A GKPCA-NHSMM based methodology for accurate RUL prognostics of nonlinear mechanical system with multistate deterioration. , 2016, , .		2
106	An <i>In Situ</i> Measurement Method for Electric Potential at Head-Disk Interface Using a Thermal Asperity Sensor. <i>IEEE Transactions on Magnetics</i> , 2016, 52, 1-6.	1.2	2
107	The Instability of Angstrom-Scale Head-Disk Interface Induced by Electrostatic Force. <i>IEEE Transactions on Magnetics</i> , 2015, 51, 1-4.	1.2	1
108	Fault diagnosis from visualization perspective using stream statistics. , 2016, , .		1

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109	An accelerated wear model for magnetic heads with respect to sensory data. , 2014, , .		0
110	Damped SVD for operational transfer path analysis. , 2016, , .		0
111	Optimal Placement of Sensors Based on Data Fusion for Condition Monitoring of Pulley Group under Speed Variation Condition. Machines, 2022, 10, 148.	1.2	0
112	A novel unknown-input and single-output approach to extract vibration patterns via a roving continuous random excitation. ISA Transactions, 2021, , .	3.1	0