

# Steven Chatterton

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

95  
papers

1,031  
citations

17  
h-index

30  
g-index

122  
ext. papers

1,288  
ext. citations

2.7  
avg, IF

5.04  
L-index

#	Paper	IF	Citations
95	Investigation of PEEK Lined Pads for Tilting-Pad Journal Bearings. <i>Machines</i> , <b>2022</b> , 10, 125	2.9	
94	Experimental and theoretical approaches for determining cage motion dynamic characteristics of angular contact ball bearings considering whirling and overall skidding behaviors. <i>Mechanical Systems and Signal Processing</i> , <b>2022</b> , 168, 108704	7.8	4
93	Skidding and cage whirling of angular contact ball bearings: Kinematic-hertzian contact-thermal-elasto-hydrodynamic model with thermal expansion and experimental validation. <i>Mechanical Systems and Signal Processing</i> , <b>2022</b> , 166, 108427	7.8	3
92	Tribological Characterization of Polyether Ether Ketone (PEEK) Polymers Produced by Additive Manufacturing for Hydrodynamic Bearing Application. <i>Lubricants</i> , <b>2021</b> , 9, 112	3.1	1
91	Diagnostics of Roller Bearings Faults During Long-Lasting Tests. <i>Mechanisms and Machine Science</i> , <b>2021</b> , 687-698	0.3	
90	Ball bearing skidding and over-skidding in large-scale angular contact ball bearings: Nonlinear dynamic model with thermal effects and experimental results. <i>Mechanical Systems and Signal Processing</i> , <b>2021</b> , 147, 107120	7.8	21
89	Rolling element bearing diagnosis based on singular value decomposition and composite squared envelope spectrum. <i>Mechanical Systems and Signal Processing</i> , <b>2021</b> , 148, 107174	7.8	37
88	Definition of Damage Indices for Railway Axle Bearings: Results of Long-Lasting Tests. <i>Machines</i> , <b>2021</b> , 9, 12	2.9	1
87	Fault Detection and Severity Level Identification of Spiral Bevel Gears under Different Operating Conditions Using Artificial Intelligence Techniques. <i>Machines</i> , <b>2021</b> , 9, 173	2.9	5
86	Behaviour of an angular contact ball bearing with three-dimensional cubic-like defect: A comprehensive non-linear dynamic model for predicting vibration response. <i>Mechanism and Machine Theory</i> , <b>2021</b> , 163, 104376	4	3
85	Intelligent fault diagnosis of rotating machine elements using machine learning through optimal features extraction and selection. <i>Procedia Manufacturing</i> , <b>2020</b> , 51, 266-273	1.5	6
84	A new method for the estimation of bearing health state and remaining useful life based on the moving average cross-correlation of power spectral density. <i>Mechanical Systems and Signal Processing</i> , <b>2020</b> , 139, 106617	7.8	28
83	Behavior of Five-Pad Tilting Pad Journal Bearings with Different Pivot Stiffness. <i>Lecture Notes in Electrical Engineering</i> , <b>2020</b> , 647-657	0.2	
82	Static Characteristics of a Tilting Five-Pad Journal Bearing with an Asymmetric Geometry. <i>Actuators</i> , <b>2020</b> , 9, 89	2.4	3
81	A Tacholess Order Tracking Method Based on Inverse Short Time Fourier Transform and Singular Value Decomposition for Bearing Fault Diagnosis. <i>Sensors</i> , <b>2020</b> , 20,	3.8	5
80	Dynamic Characteristics of a Non-symmetric Tilting Pad Journal Bearing. <i>Lecture Notes in Electrical Engineering</i> , <b>2020</b> , 658-669	0.2	
79	Condition Monitoring of Rolling Element Bearing Based on Moving Average Cross-Correlation of Power Spectral Density. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 3411-3418	0.3	

78	Rotordynamic Characterization of a Staggered Labyrinth Seal: Experimental Test Data and Comparison With Predictions. <i>Journal of Engineering for Gas Turbines and Power</i> , <b>2019</b> , 141,	1.7	4
77	Effects of Severe Operating Conditions (High Loads/Low Rotational Speeds) on Sleeve Journal Bearings. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 491-504	0.3	
76	Numerical Modeling of Spiral Vibrations Caused by the Presence of Brush Seals. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 449-470	0.3	2
75	The Effect of the Pivot Stiffness on the Performances of Five-Pad Tilting Pad Bearings. <i>Lubricants</i> , <b>2019</b> , 7, 61	3.1	13
74	Fast-flow dynamic behaviors of a hydraulic generating system with multi-timescales. <i>JVC/Journal of Vibration and Control</i> , <b>2019</b> , 25, 2863-2874	2	5
73	Special Signal Processing Tools for the Experimental Data of Spiral Vibrations. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 305-320	0.3	0
72	Development and Validation of a Bulk-Flow Model for Staggered Labyrinth Seals. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 471-490	0.3	
71	Optimized Tribo-Design of Lubricants for Power Loss Reduction in Journal Bearings Used in Process Industry. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 437-448	0.3	1
70	Simulation of Tilting-pad Journal Bearing Equipped with Cooled Pads. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 3805-3814	0.3	
69	Static and dynamic behaviors of a cylindrical hydrodynamic journal bearing operating at very low Sommerfeld numbers. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 3835-3844	0.3	4
68	Intermittent Rub Caused by Carbonized Oil in a Steam Turbine. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 290-304	0.3	1
67	Cooled Pads for Tilting-Pad Journal Bearings. <i>Lubricants</i> , <b>2019</b> , 7, 92	3.1	3
66	Investigation of Cooled Pads for Tilting-Pad Bearings. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 505-519	0.3	2
65	Tribo-design of lubricants for power loss reduction in the oil-film bearings of a process industry machine: Modelling and experimental tests. <i>Tribology International</i> , <b>2019</b> , 130, 133-145	4.9	11
64	Diagnostics of Bearings in Rolling Stocks: Results of Long Lasting Tests for a Regional Train Locomotive. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 321-335	0.3	5
63	Numerical investigation of the effect of manufacturing errors in pads on the behaviour of tilting-pad journal bearings. <i>Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology</i> , <b>2018</b> , 232, 480-500	1.4	17
62	On the Thermodynamic Process in the Bulk-Flow Model for the Estimation of the Dynamic Coefficients of Labyrinth Seals. <i>Journal of Engineering for Gas Turbines and Power</i> , <b>2018</b> , 140,	1.7	11
61	Thermo-elasto bulk-flow model for labyrinth seals in steam turbines. <i>Tribology International</i> , <b>2018</b> , 119, 359-371	4.9	27

60	A Novel Method of Frequency Band Selection for Squared Envelope Analysis for Fault Diagnosing of Rolling Element Bearings in a Locomotive Powertrain. <i>Sensors</i> , <b>2018</b> , 18,	3.8	17
59	Rotordynamic Characterization of a Staggered Labyrinth Seal: Experimental Test Data and Comparison With Predictions <b>2018</b> ,		1
58	Comparison of the dynamic response of two columns of milling machines made of standard carpentry and metal foam sandwiches. <i>JVC/Journal of Vibration and Control</i> , <b>2017</b> , 23, 2782-2794	2	2
57	Experimental evidence of a two-axial groove hydrodynamic journal bearing under severe operation conditions. <i>Tribology International</i> , <b>2017</b> , 109, 416-427	4.9	29
56	Sensitivity Analysis of the One-Control Volume Bulk-Flow Model for a 14 Teeth-on-Stator Straight-Through Labyrinth Seal <b>2017</b> ,		3
55	Behaviour of Tilting-Pad Journal Bearings in Case of Large Manufacturing Errors. <i>Mechanisms and Machine Science</i> , <b>2017</b> , 221-227	0.3	2
54	Electrical pitting of tilting-pad thrust bearings: Modelling and experimental evidence. <i>Tribology International</i> , <b>2016</b> , 103, 475-486	4.9	7
53	Effect of the load direction on non-nominal five-pad tilting-pad journal bearings. <i>Tribology International</i> , <b>2016</b> , 98, 197-211	4.9	45
52	Dynamic Characterization of Milling Plant Columns. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2016</b> , 311-321	0.3	
51	Behavior of TiltingPad Journal Bearings With Large Machining Error on Pads <b>2016</b> ,		3
50	Analysis of the Dynamic Behavior of Two High-Pressure Turbines for the Possible Detection of Rub Symptoms <b>2016</b> ,		7
49	A data-driven method to enhance vibration signal decomposition for rolling bearing fault analysis. <i>Mechanical Systems and Signal Processing</i> , <b>2016</b> , 81, 126-147	7.8	35
48	A cyclostationary multi-domain analysis of fluid instability in Kaplan turbines. <i>Mechanical Systems and Signal Processing</i> , <b>2015</b> , 60-61, 375-390	7.8	17
47	Monitoring of the Damage in Rolling Element Bearings. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 977-986	0.3	1
46	A Test Rig for Evaluating Tilting-Pad Journal Bearing Characteristics. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 921-930	0.3	12
45	Identification Dynamic Force Coefficients of a Five-Pad Tilting-Pad Journal Bearing. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 931-941	0.3	10
44	Behavior of a TiltingPad Journal Bearing With Different Load Directions <b>2015</b> ,		6
43	An Experimental Study of Nonlinear Oil-Film Forces in a Tilting-Pad Journal Bearing <b>2015</b> ,		6

42	Influence of the Supporting Structure Dynamic Behaviour on the Shaft Vibration of a Real Rotating Machine. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 2123-2136	0.3	
41	Design of a Novel Multicylinder Stirling Engine. <i>Journal of Mechanical Design, Transactions of the ASME</i> , <b>2015</b> , 137,	3	4
40	Tracking the Damage Level in Rolling Element Bearings. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 399-407	0.3	3
39	A Novel Procedure for the Selection of the Frequency Band in the Envelope Analysis for Rolling Element Bearing Diagnostics. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 421-430	0.3	3
38	Architecture of the Monitoring System for the Traction System Bearings of a Regional Locomotive. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 455-464	0.3	3
37	Multiphysics TEHD Model of a Tilting-Pad Thrust Bearing with Polymeric Layer. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 955-968	0.3	1
36	Performances Degradation of Tilting-Pad Thrust Bearings Due to Electrical Pitting. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 981-994	0.3	2
35	Use of Chaos in the Diagnostics of Rolling Element Bearings. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 485-495	0.3	
34	Explanation of the Snubbing Mechanism on Vibration Reduction by Means of Chaos Metrics. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 129-141	0.3	
33	Successful Elimination of a Pad-Fluttering Phenomenon. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 1033-1043	0.3	
32	Blade Vibration Measurements and Excitation Force Evaluation. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 65-78	0.3	1
31	Diagnostic of Rolling Element Bearings with Envelope Analysis in Non-Stationary Conditions. <i>Lecture Notes in Mechanical Engineering</i> , <b>2014</b> , 127-135	0.4	3
30	The relationship between kurtosis- and envelope-based indexes for the diagnostic of rolling element bearings. <i>Mechanical Systems and Signal Processing</i> , <b>2014</b> , 43, 25-43	7.8	135
29	Optimal Frequency Band Selection for the Square Envelope Spectrum in the Diagnostics of Rolling Element Bearings <b>2014</b> ,		5
28	Condition Monitoring and Diagnostics of Wind Turbines: A Survey <b>2014</b> ,		1
27	The velocity synchronous discrete Fourier transform for order tracking in the field of rotating machinery. <i>Mechanical Systems and Signal Processing</i> , <b>2014</b> , 44, 118-133	7.8	69
26	Signal Processing Diagnostic Tool for Rolling Element Bearings Using EMD and MED. <i>Lecture Notes in Mechanical Engineering</i> , <b>2014</b> , 379-388	0.4	2
25	Parametric Analysis Focused on Non-linear Forces in Oil-film Journal Bearings. <i>Lecture Notes in Mechanical Engineering</i> , <b>2014</b> , 115-125	0.4	

24	Dynamical Behavior of Rotating Machinery in Non-Stationary Conditions: Simulation and Experimental Results. <i>Lecture Notes in Mechanical Engineering</i> , <b>2014</b> , 3-21	0.4	
23	Testing second order cyclostationarity in the squared envelope spectrum of non-white vibration signals. <i>Mechanical Systems and Signal Processing</i> , <b>2013</b> , 40, 38-55	7.8	54
22	Robust estimation of excitation in mechanical systems under model uncertainties. <i>Journal of Sound and Vibration</i> , <b>2013</b> , 332, 264-281	3.9	13
21	A new procedure for using envelope analysis for rolling element bearing diagnostics in variable operating conditions. <i>Mechanical Systems and Signal Processing</i> , <b>2013</b> , 38, 23-35	7.8	131
20	Unbalance Identification in Large Steam Turbo-Generator Unit Using a Model-Based Method <b>2013</b> ,		1
19	Diagnostics of Rolling Element Bearings for the Traction System of High Speed Trains: Experimental Evidences <b>2013</b> ,		1
18	Modeling of the dynamic response of a Francis turbine. <i>Mechanical Systems and Signal Processing</i> , <b>2012</b> , 29, 107-119	7.8	33
17	Nonlinear effects caused by coupling misalignment in rotors equipped with journal bearings. <i>Mechanical Systems and Signal Processing</i> , <b>2012</b> , 30, 306-322	7.8	49
16	Hydraulic Instability Onset Detection in Kaplan Turbines by Monitoring Shaft Vibrations <b>2012</b> ,		4
15	Fault Symptoms of Rolling Element Bearings Under Variable Operating Conditions: A Multi Domain Analysis <b>2012</b> ,		4
14	Dynamic Effects of Electrical Pitting in Steam-Turbine Tilting-Pad Thrust-Bearings <b>2012</b> ,		3
13	Detection of Unsteady Flow in a Kaplan Hydraulic Turbine Using Machine Mechanical Model and Rotor Measured Vibrations <b>2012</b> ,		2
12	Characterization of Five-Pad Tilting-Pad Journal Bearings Using an Original Test-Rig <b>2011</b> ,		1
11	A model to study the reduction of turbine blade vibration using the snubbing mechanism. <i>Mechanical Systems and Signal Processing</i> , <b>2011</b> , 25, 1260-1275	7.8	31
10	Multiphysics Modeling of a Tilting Pad Thrust Bearing: Comparison Between White Metal and Polymeric Layered Pads <b>2011</b> ,		2
9	Effects of Thermal Transients on Cracked Shaft Vibrations <b>2011</b> ,		3
8	Analysis of the Effects of Parallel and Angular Misalignment in Hyperstatic Rotors Equipped With Oil-Film Bearings <b>2011</b> ,		1
7	Effectiveness of MED for Fault Diagnosis in Roller Bearings. <i>Springer Proceedings in Physics</i> , <b>2011</b> , 637-642	2.2	5

6	Bearing Fault Diagnostics Using the Spectral Pattern Recognition. <i>Springer Proceedings in Physics</i> , <b>2011</b> , 643-648	0.2	1
5	Identification of mechanical faults in rotating machinery for power generation <b>2010</b> ,		1
4	Case History of Pad Fluttering in a Tilting-Pad Journal Bearing <b>2010</b> ,		6
3	Application and Comparison of High Breakdown-Point and Bounded-Influence Estimators to Rotor Balancing. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , <b>2010</b> , 132,	1.6	6
2	Rotor balancing using high breakdown-point and bounded-influence estimators. <i>Mechanical Systems and Signal Processing</i> , <b>2010</b> , 24, 860-872	7.8	13
1	. <i>Industrial Electronics Society (IECON), Annual Conference of IEEE</i> , <b>2006</b> ,		2