

# Steven Chatterton

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/9177813/steven-chatterton-publications-by-citations.pdf>

**Version:** 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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 | 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       |
| 94 | 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       |
| 93 | 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        |
| 92 | 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        |
| 91 | 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        |
| 90 | 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        |
| 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 | 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        |
| 87 | 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        |
| 86 | 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        |
| 85 | 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        |
| 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 | Thermo-elasto bulk-flow model for labyrinth seals in steam turbines. <i>Tribology International</i> , <b>2018</b> , 119, 359-371   | 4.9 | 27        |
| 82 | 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        |
| 81 | 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        |
| 80 | 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        |
| 79 | 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        |

|    |   |     |    |
|----|---|-----|----|
| 78 | 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 |
| 77 | 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 |
| 76 | 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 |
| 75 | A Test Rig for Evaluating Tilting-Pad Journal Bearing Characteristics. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 921-930  | 0.3 | 12 |
| 74 | 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 |
| 73 | 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 |
| 72 | 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 |
| 71 | Electrical pitting of tilting-pad thrust bearings: Modelling and experimental evidence. <i>Tribology International</i> , <b>2016</b> , 103, 475-486   | 4.9 | 7  |
| 70 | Analysis of the Dynamic Behavior of Two High-Pressure Turbines for the Possible Detection of Rub Symptoms <b>2016</b> ,   |     | 7  |
| 69 | 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  |
| 68 | Behavior of a Tilting Pad Journal Bearing With Different Load Directions <b>2015</b> ,  |     | 6  |
| 67 | An Experimental Study of Nonlinear Oil-Film Forces in a Tilting-Pad Journal Bearing <b>2015</b> ,   |     | 6  |
| 66 | Case History of Pad Fluttering in a Tilting-Pad Journal Bearing <b>2010</b> ,   |     | 6  |
| 65 | 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  |
| 64 | 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  |
| 63 | Optimal Frequency Band Selection for the Square Envelope Spectrum in the Diagnostics of Rolling Element Bearings <b>2014</b> ,  |     | 5  |
| 62 | Effectiveness of MED for Fault Diagnosis in Roller Bearings. <i>Springer Proceedings in Physics</i> , <b>2011</b> , 637-642   | 2.2 | 5  |
| 61 | 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  |

|    |   |     |   |
|----|---|-----|---|
| 60 | 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 |
| 59 | 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 |
| 58 | 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 |
| 57 | Design of a Novel Multicylinder Stirling Engine. <i>Journal of Mechanical Design, Transactions of the ASME</i> , <b>2015</b> , 137,   | 3   | 4 |
| 56 | Hydraulic Instability Onset Detection in Kaplan Turbines by Monitoring Shaft Vibrations <b>2012</b> ,   |     | 4 |
| 55 | Fault Symptoms of Rolling Element Bearings Under Variable Operating Conditions: A Multi Domain Analysis <b>2012</b> ,   |     | 4 |
| 54 | 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 |
| 53 | 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 |
| 52 | 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 |
| 51 | Sensitivity Analysis of the One-Control Volume Bulk-Flow Model for a 14 Teeth-on-Stator Straight-Through Labyrinth Seal <b>2017</b> ,   |     | 3 |
| 50 | Effects of Thermal Transients on Cracked Shaft Vibrations <b>2011</b> ,   |     | 3 |
| 49 | Dynamic Effects of Electrical Pitting in Steam-Turbine Tilting-Pad Thrust-Bearings <b>2012</b> ,  |     | 3 |
| 48 | Tracking the Damage Level in Rolling Element Bearings. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 399-407  | 0.3 | 3 |
| 47 | 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 |
| 46 | 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 |
| 45 | Static Characteristics of a Tilting Five-Pad Journal Bearing with an Asymmetric Geometry. <i>Actuators</i> , <b>2020</b> , 9, 89  | 2.4 | 3 |
| 44 | Behavior of Tilting Pad Journal Bearings With Large Machining Error on Pads <b>2016</b> ,   |     | 3 |
| 43 | Cooled Pads for Tilting-Pad Journal Bearings. <i>Lubricants</i> , <b>2019</b> , 7, 92   | 3.1 | 3 |

|    |   |     |   |
|----|---|-----|---|
| 42 | 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 |
| 41 | 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 |
| 40 | 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 |
| 39 | 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 |
| 38 | 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 |
| 37 | Multiphysics Modeling of a Tilting Pad Thrust Bearing: Comparison Between White Metal and Polymeric Layered Pads <b>2011</b> ,  |     | 2 |
| 36 | Detection of Unsteady Flow in a Kaplan Hydraulic Turbine Using Machine Mechanical Model and Rotor Measured Vibrations <b>2012</b> ,   |     | 2 |
| 35 | . <i>Industrial Electronics Society (IECON), Annual Conference of IEEE</i> , <b>2006</b> ,  |     | 2 |
| 34 | 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 |
| 33 | 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 |
| 32 | Investigation of Cooled Pads for Tilting-Pad Bearings. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 505-519  | 0.3 | 2 |
| 31 | Monitoring of the Damage in Rolling Element Bearings. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 977-986   | 0.3 | 1 |
| 30 | Condition Monitoring and Diagnostics of Wind Turbines: A Survey <b>2014</b> ,   |     | 1 |
| 29 | Unbalance Identification in Large Steam Turbo-Generator Unit Using a Model-Based Method <b>2013</b> ,   |     | 1 |
| 28 | Diagnostics of Rolling Element Bearings for the Traction System of High Speed Trains: Experimental Evidences <b>2013</b> ,  |     | 1 |
| 27 | Characterization of Five-Pad Tilting-Pad Journal Bearings Using an Original Test-Rig <b>2011</b> ,  |     | 1 |
| 26 | Identification of mechanical faults in rotating machinery for power generation <b>2010</b> ,  |     | 1 |
| 25 | Analysis of the Effects of Parallel and Angular Misalignment in Hyperstatic Rotors Equipped With Oil-Film Bearings <b>2011</b> ,  |     | 1 |

|    |   |     |   |
|----|---|-----|---|
| 24 | 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 |
| 23 | 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 |
| 22 | 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 |
| 21 | Intermittent Rub Caused by Carbonized Oil in a Steam Turbine. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 290-304   | 0.3 | 1 |
| 20 | Bearing Fault Diagnostics Using the Spectral Pattern Recognition. <i>Springer Proceedings in Physics</i> , <b>2011</b> , 643-648  | 0.2 | 1 |
| 19 | Blade Vibration Measurements and Excitation Force Evaluation. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 65-78   | 0.3 | 1 |
| 18 | Definition of Damage Indices for Railway Axle Bearings: Results of Long-Lasting Tests. <i>Machines</i> , <b>2021</b> , 9, 12  | 2.9 | 1 |
| 17 | Rotordynamic Characterization of a Staggered Labyrinth Seal: Experimental Test Data and Comparison With Predictions <b>2018</b> ,   |     | 1 |
| 16 | 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 |
| 15 | 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 |   |
| 14 | 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 |   |
| 13 | 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 |   |
| 12 | Investigation of PEEK Lined Pads for Tilting-Pad Journal Bearings. <i>Machines</i> , <b>2022</b> , 10, 125  | 2.9 |   |
| 11 | 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 |   |
| 10 | Simulation of Tilting-pad Journal Bearing Equipped with Cooled Pads. <i>Mechanisms and Machine Science</i> , <b>2019</b> , 3805-3814  | 0.3 |   |
| 9  | 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 |   |
| 8  | Diagnostics of Roller Bearings Faults During Long-Lasting Tests. <i>Mechanisms and Machine Science</i> , <b>2021</b> , 687-698  | 0.3 |   |
| 7  | Use of Chaos in the Diagnostics of Rolling Element Bearings. <i>Mechanisms and Machine Science</i> , <b>2015</b> , 485-495  | 0.3 |   |

- 6 Explanation of the Snubbing Mechanism on Vibration Reduction by Means of Chaos Metrics. *Mechanisms and Machine Science*, **2015**, 129-141 0.3
- 5 Successful Elimination of a Pad-Fluttering Phenomenon. *Mechanisms and Machine Science*, **2015**, 1033-1043 0.3
- 4 Dynamic Characterization of Milling Plant Columns. *Conference Proceedings of the Society for Experimental Mechanics*, **2016**, 311-321 0.3
- 3 Parametric Analysis Focused on Non-linear Forces in Oil-film Journal Bearings. *Lecture Notes in Mechanical Engineering*, **2014**, 115-125 0.4
- 2 Dynamical Behavior of Rotating Machinery in Non-Stationary Conditions: Simulation and Experimental Results. *Lecture Notes in Mechanical Engineering*, **2014**, 3-21 0.4
- 1 Dynamic Characteristics of a Non-symmetric Tilting Pad Journal Bearing. *Lecture Notes in Electrical Engineering*, **2020**, 658-669 0.2