

# Robert J Barthorpe

## List of Publications by Year in descending order

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44  
papers

537  
citations

933447

10  
h-index

677142

22  
g-index

48  
all docs

48  
docs citations

48  
times ranked

433  
citing authors

#	ARTICLE	IF	CITATIONS
1	On risk-based active learning for structural health monitoring. Mechanical Systems and Signal Processing, 2022, 167, 108569.	8.0	16
2	Robust equation discovery considering model discrepancy: A sparse Bayesian and Gaussian process approach. Mechanical Systems and Signal Processing, 2022, 168, 108717.	8.0	4
3	A Forward Model Driven Structural Health Monitoring Paradigm: Damage Detection. Conference Proceedings of the Society for Experimental Mechanics, 2022, , 119-126.	0.5	5
4	A probabilistic risk-based decision framework for structural health monitoring. Mechanical Systems and Signal Processing, 2021, 150, 107339.	8.0	29
5	Learning model discrepancy: A Gaussian process and sampling-based approach. Mechanical Systems and Signal Processing, 2021, 152, 107381.	8.0	9
6	On sensor optimisation for structural health monitoring robust to environmental variations. Wind Energy Science, 2021, 6, 1107-1116.	3.3	1
7	On Treed Gaussian Processes and piecewise-linear NARX modelling. Mechanical Systems and Signal Processing, 2020, 144, 106877.	8.0	3
8	Emerging Trends in Optimal Structural Health Monitoring System Design: From Sensor Placement to System Evaluation. Journal of Sensor and Actuator Networks, 2020, 9, 31.	3.9	25
9	Bayesian history matching for structural dynamics applications. Mechanical Systems and Signal Processing, 2020, 143, 106828.	8.0	6
10	Modelling of Guided Waves in a Composite Plate Through a Combination of Physical Knowledge and Regression Analysis. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 109-114.	0.5	0
11	A Unifying Framework for Probabilistic Validation Metrics. Journal of Verification, Validation and Uncertainty Quantification, 2019, 4, .	0.4	6
12	Sequential Bayesian History Matching for Model Calibration. , 2019, , .		1
13	An Evaluation of Validation Metrics for Probabilistic Model Outputs. , 2018, , .		3
14	On evolutionary system identification with applications to nonlinear benchmarks. Mechanical Systems and Signal Processing, 2018, 112, 194-232.	8.0	46
15	On multi-site damage identification using single-site training data. Journal of Sound and Vibration, 2017, 409, 43-64.	3.9	13
16	\$\$\$N-1\$\$\$ N - 1 modal interactions of a three-degree-of-freedom system with cubic elastic nonlinearities. Nonlinear Dynamics, 2016, 83, 497-511.	5.2	10
17	Nonlinear Modal Interaction Analysis for a Three Degree-of-Freedom System with Cubic Nonlinearities. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 123-131.	0.5	4
18	Linear and Nonlinear System Identification Using Evolutionary Optimisation. Springer Proceedings in Mathematics and Statistics, 2016, , 325-345.	0.2	0

#	ARTICLE	IF	CITATIONS
19	Robust methods for outlier detection and regression for SHM applications. International Journal of Sustainable Materials and Structural Systems, 2015, 2, 3.	0.1	6
20	An Experimental Investigation of Feature Availability in Nominally Identical Structures for Population-Based SHM. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 185-191.	0.5	2
21	On damage diagnosis for a wind turbine blade using pattern recognition. Journal of Sound and Vibration, 2014, 333, 1833-1850.	3.9	133
22	The use of pseudo-faults for damage location in SHM: An experimental investigation on a Piper Tomahawk aircraft wing. Journal of Sound and Vibration, 2014, 333, 971-990.	3.9	25
23	Robust methods of inclusive outlier analysis for structural health monitoring. Journal of Sound and Vibration, 2014, 333, 5181-5195.	3.9	54
24	Bayesian System Identification of Dynamical Systems Using Reversible Jump Markov Chain Monte Carlo. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 277-284.	0.5	2
25	Machine Learning Applications for a Wind Turbine Blade under Continuous Fatigue Loading. Key Engineering Materials, 2013, 588, 166-174.	0.4	8
26	Structural Health Monitoring of Composite Material Typical of Wind Turbine Blades by Novelty Detection on Vibration Response. Key Engineering Materials, 2012, 518, 319-327.	0.4	0
27	Novelty detection applied to vibration data from a CX-100 wind turbine blade under fatigue loading. Journal of Physics: Conference Series, 2012, 382, 012047.	0.4	12
28	Damage detection in carbon composite material typical of wind turbine blades using auto-associative neural networks. Proceedings of SPIE, 2012, , .	0.8	6
29	Identification of Hysteretic Systems Using NARX Models, Part I: Evolutionary Identification. Conference Proceedings of the Society for Experimental Mechanics, 2012, , 49-56.	0.5	12
30	Identification of Hysteretic Systems Using NARX Models, Part II: A Bayesian Approach. Conference Proceedings of the Society for Experimental Mechanics, 2012, , 57-65.	0.5	2
31	Classification of multi-site damage using support vector machines. Journal of Physics: Conference Series, 2011, 305, 012059.	0.4	3
32	Multiple-site Damage Location Using Single-site Training Data. Conference Proceedings of the Society for Experimental Mechanics, 2011, , 195-201.	0.5	1
33	The use of pseudo-faults for novelty detection in SHM. Journal of Sound and Vibration, 2010, 329, 2349-2366.	3.9	47
34	Advanced Feature Selection for Simplified Pattern Recognition within the Damage Identification Framework. Shock and Vibration, 2010, 17, 589-599.	0.6	4
35	Vibration-based structural health monitoring using large sensor networks. Smart Structures and Systems, 2010, 6, 335-347.	1.9	7
36	Feature Extraction from Spectral Data Using the Bayesian Evidence Framework. Key Engineering Materials, 0, 413-414, 151-158.	0.4	0

#	ARTICLE	IF	CITATIONS
37	Some Recent Developments in Structural Health Monitoring. Key Engineering Materials, 0, 518, 298-318.	0.4	1
38	Advanced Tools for Damage Detection in Wind Turbines. Key Engineering Materials, 0, 569-570, 547-554.	0.4	0
39	Comparative Study of Robust Novelty Detection Techniques. Key Engineering Materials, 0, 569-570, 1109-1115.	0.4	0
40	An SHM View of a CFD Model of Lillgrund Wind Farm. Applied Mechanics and Materials, 0, 564, 164-169.	0.2	2
41	Sparse Gaussian Process Emulators for Surrogate Design Modelling. Applied Mechanics and Materials, 0, 885, 18-31.	0.2	2
42	Multiple Damage Identification Using the Reversible Jump Markov Chain Monte Carlo. , 0, , .		2
43	Bayesian Calibration and Bias Correction for Forward Model-driven SHM. , 0, , .		6
44	On Current Trends in Forward Model-driven SHM. , 0, , .		3