

# Rob H B Fey

## List of Publications by Year in descending order

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59  
papers

858  
citations

516561

16  
h-index

501076

28  
g-index

60  
all docs

60  
docs citations

60  
times ranked

796  
citing authors

#	ARTICLE	IF	CITATIONS
1	Modelling the dynamics of a MEMS resonator: Simulations and experiments. <i>Sensors and Actuators A: Physical</i> , 2008, 142, 306-315.	2.0	159
2	Long Term Structural Dynamics of Mechanical Systems With Local Nonlinearities. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 1996, 118, 147-153.	1.0	68
3	Simulations and experiments of hardening and softening resonances in a clampedâ€“clamped beam MEMS resonator. <i>Sensors and Actuators A: Physical</i> , 2010, 162, 225-234.	2.0	67
4	Application of a Dynamic Vibration Absorber to a Piecewise Linear Beam System. <i>Nonlinear Dynamics</i> , 2004, 37, 227-243.	2.7	49
5	Amplitude saturation of MEMS resonators explained by autoparametric resonance. <i>Journal of Micromechanics and Microengineering</i> , 2010, 20, 105012.	1.5	42
6	Dynamic buckling of a shallow arch under shock loading considering the effects of the arch shape. <i>International Journal of Non-Linear Mechanics</i> , 2006, 41, 1057-1067.	1.4	35
7	Phase Feedback for Nonlinear MEM Resonators in Oscillator Circuits. <i>IEEE/ASME Transactions on Mechatronics</i> , 2009, 14, 423-433.	3.7	31
8	An improved model for the classical Huygens <sup>x3</sup> experiment on synchronization of pendulum clocks. <i>Journal of Sound and Vibration</i> , 2014, 333, 7248-7266.	2.1	26
9	Synchronization of weakly nonlinear oscillators with Huygens' coupling. <i>Chaos</i> , 2013, 23, 033118.	1.0	25
10	Dynamic stability of a thin cylindrical shell with top mass subjected to harmonic base-acceleration. <i>International Journal of Solids and Structures</i> , 2008, 45, 1587-1613.	1.3	24
11	Dynamic stability of a base-excited thin orthotropic cylindrical shell with top mass: Simulations and experiments. <i>Journal of Sound and Vibration</i> , 2010, 329, 3149-3170.	2.1	23
12	Network synchronization using invariant-manifold-based diffusive dynamic couplings with time-delay. <i>Automatica</i> , 2015, 57, 34-44.	3.0	23
13	Steady-state behaviour of flexible rotordynamic systems with oil journal bearings. <i>Nonlinear Dynamics</i> , 1996, 11, 295-313.	2.7	22
14	Further understanding of Huygensâ€™ coupled clocks: The effect of stiffness. <i>Physica D: Nonlinear Phenomena</i> , 2014, 270, 11-19.	1.3	21
15	Semi-analytic approximation of the temperature field resulting from moving heat loads. <i>International Journal of Heat and Mass Transfer</i> , 2018, 122, 128-137.	2.5	20
16	Nonlinear dynamic analysis of a structure with a friction-based seismic base isolation system. <i>Nonlinear Dynamics</i> , 2007, 50, 523-538.	2.7	18
17	Proportional and derivative control for steady-state vibration mitigation in a piecewise linear beam system. <i>Nonlinear Dynamics</i> , 2010, 60, 535-549.	2.7	14
18	Synchronization of Identical Linear Systems and Diffusive Time-Delayed Couplings. <i>IEEE Transactions on Circuits and Systems I: Regular Papers</i> , 2014, 61, 1801-1814.	3.5	14

#	ARTICLE	IF	CITATIONS
19	Nonlinear resonances in an axially excited beam carrying a top mass: simulations and experiments. <i>Nonlinear Dynamics</i> , 2011, 66, 285-302.	2.7	11
20	Steady-state dynamics of a 3D tensegrity structure: Simulations and experiments. <i>International Journal of Solids and Structures</i> , 2012, 49, 973-988.	1.3	11
21	Periodic excitation of a buckled beam using a higher order semianalytic approach. <i>Nonlinear Dynamics</i> , 2007, 50, 325-339.	2.7	10
22	Finite Element Model Reduction and Model Updating of structures for Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 4517-4522.	0.4	10
23	Network synchronization of time-delayed coupled nonlinear systems using predictor-based diffusive dynamic couplings. <i>Chaos</i> , 2015, 25, 023108.	1.0	10
24	Synchronization and Partial Synchronization Experiments with Networks of Time-Delay Coupled Hindmarsh-Rose Neurons. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2016, 26, 1650111.	0.7	10
25	Experimental verification of the steady-state behavior of a beam system with discontinuous support. <i>Experimental Mechanics</i> , 1996, 36, 159-165.	1.1	9
26	A numerical and experimental study on viscoelastic damping of a 3D structure. <i>Journal of Sound and Vibration</i> , 2015, 349, 80-98.	2.1	9
27	Immersion and invariance observers with time-delayed output measurements. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2016, 30, 227-235.	1.7	9
28	Experimental Validation of Object Positioning Via Stick-Slip Vibrations. <i>IEEE/ASME Transactions on Mechatronics</i> , 2014, 19, 1092-1101.	3.7	8
29	Experimental validation of hardening and softening resonances in a clamped-clamped beam MEMS resonator. <i>Procedia Chemistry</i> , 2009, 1, 812-815.	0.7	6
30	Large amplitude dynamic behavior of thrust air bearings: Modeling and experiments. <i>Tribology International</i> , 2017, 109, 460-466.	3.0	6
31	A fluid-coupled transmitting CMUT operated in collapse mode: Semi-analytic modeling and experiments. <i>Sensors and Actuators A: Physical</i> , 2017, 267, 474-484.	2.0	6
32	NETWORK SYNCHRONIZATION BY DYNAMIC DIFFUSIVE COUPLING. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2013, 23, 1350076.	0.7	5
33	Iterative Pole-Zero model updating: A combined sensitivity approach. <i>Control Engineering Practice</i> , 2018, 71, 164-174.	3.2	5
34	Sensor and Actuator Placement for Proportional Feedback Control in Advection-Diffusion Equations. , 2020, 4, 193-198.		5
35	On phase feedback for nonlinear MEMS resonators. <i>Frequency Control Symposium and Exhibition, Proceedings of the IEEE International</i> , 2007, , .	0.0	4
36	Editorial: Special issue on stability of non-linear dynamic structures and systems. <i>Nonlinear Dynamics</i> , 2011, 66, 247-250.	2.7	4

#	ARTICLE	IF	CITATIONS
37	An Introduction to Parametric Resonance. , 2012, , 1-13.		4
38	Impulsive Steering Between Coexisting Stable Periodic Solutions With an Application to Vibrating Plates. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	0.7	4
39	Manifolds of Nonlinear Dynamic Single-DOF Systems. , 1993, , 293-303.		4
40	Severity of Tip-Out Induced Impacts in Drive Line Systems With Backlash. Journal of Computational and Nonlinear Dynamics, 2010, 5, .	0.7	3
41	Vibrational self-alignment of a rigid object exploiting friction. Nonlinear Dynamics, 2011, 65, 109-129.	2.7	3
42	Iterative pole-zero finite element model updating using generic parameters. Mechatronics, 2018, 55, 180-193.	2.0	3
43	Optimal Thermal Actuation for Mitigation of Heat-Induced Wafer Deformation. IEEE Transactions on Control Systems Technology, 2021, 29, 514-529.	3.2	3
44	Experimental analysis of the steady-state behaviour of beam systems with discontinuous support. Meccanica, 1996, 31, 293-308.	1.2	2
45	Airflow-Housing-Induced Resonances of Rotating Optical Disks. Journal of Applied Mechanics, Transactions ASME, 2007, 74, 1252-1263.	1.1	2
46	Bifurcation-Based Shimmy Analysis of Landing Gears Using Flexible Multibody Models. Mechanisms and Machine Science, 2019, , 261-291.	0.3	2
47	Classification of Periodic Solutions in a Single-Degree-of-Freedom System With Backlash. , 2007, , .		2
48	Steady-State Behaviour of a Solar Array System with Elastic Stops. Solid Mechanics and Its Applications, 1999, , 303-312.	0.1	2
49	Classification of periodic orbits for systems with backlash. Chaos, Solitons and Fractals, 2009, 41, 131-144.	2.5	1
50	CONTROLLED SYNCHRONIZATION OF CHAOTIC OSCILLATORS WITH HUYGENSâ€™ COUPLING. , 2013, , 341-352.		1
51	The method of images in thermoelasticity with an application to wafer heating. Journal of Thermal Stresses, 2021, 44, 970-1010.	1.1	1
52	Some Aspects of the Analysis of Systems with Local Nonlinearities. , 1990, , 165-172.		1
53	Optimal thermal actuation for mirror temperature control. Computer Methods in Applied Mechanics and Engineering, 2022, 398, 115212.	3.4	1
54	Effect of hinge friction on the steady-state response of base-excited shallow arches. JVC/Journal of Vibration and Control, 2014, 20, 1877-1894.	1.5	0

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55	Steady-State Dynamics of Two Nonlinear MDOF Mechanical Engineering Systems. Solid Mechanics and Its Applications, 2000, , 13-23.	0.1	0
56	Impact Severity in Drive Line Systems With Backlash. , 2009, , .		0
57	Reduction of Steady-State Vibrations in a Piecewise Linear Beam System Using Proportional and Derivative Control. World Scientific Series on Nonlinear Science, Series B, 2010, , 71-88.	0.2	0
58	Parametric and Direct Resonances in a Base-Excited Beam Carrying a Top Mass. , 2012, , 267-285.		0
59	Iterative Pole-Zero Model Updating Using Multiple Frequency Response Functions. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 65-70.	0.3	0