

# Gaetan Kerschen

## List of Publications by Citations

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33  
papers

2,487  
citations

19  
h-index

38  
g-index

38  
ext. papers

2,900  
ext. citations

3.1  
avg, IF

4.69  
L-index

#	Paper	IF	Citations
33	Past, present and future of nonlinear system identification in structural dynamics. <i>Mechanical Systems and Signal Processing</i> , <b>2006</b> , 20, 505-592	7.8	729
32	The Method of Proper Orthogonal Decomposition for Dynamical Characterization and Order Reduction of Mechanical Systems: An Overview. <i>Nonlinear Dynamics</i> , <b>2005</b> , 41, 147-169	5	530
31	Complicated dynamics of a linear oscillator with a light, essentially nonlinear attachment. <i>Physica D: Nonlinear Phenomena</i> , <b>2005</b> , 204, 41-69	3.3	147
30	Suppression Aeroelastic Instability Using Broadband Passive Targeted Energy Transfers, Part 1: Theory. <i>AIAA Journal</i> , <b>2007</b> , 45, 693-711	2.1	145
29	Irreversible Passive Energy Transfer in Coupled Oscillators with Essential Nonlinearity. <i>SIAM Journal on Applied Mathematics</i> , <b>2005</b> , 66, 648-679	1.8	128
28	Suppressing Aeroelastic Instability Using Broadband Passive Targeted Energy Transfers, Part 2: Experiments. <i>AIAA Journal</i> , <b>2007</b> , 45, 2391-2400	2.1	112
27	Sensor validation using principal component analysis. <i>Smart Materials and Structures</i> , <b>2005</b> , 14, 36-42	3.4	96
26	Efficiency of targeted energy transfers in coupled nonlinear oscillators associated with 1:1 resonance captures: Part I. <i>Journal of Sound and Vibration</i> , <b>2008</b> , 311, 1228-1248	3.9	74
25	Experimental investigation of targeted energy transfers in strongly and nonlinearly coupled oscillators. <i>Journal of the Acoustical Society of America</i> , <b>2005</b> , 118, 791-799	2.2	68
24	Theoretical and Experimental Study of Multimodal Targeted Energy Transfer in a System of Coupled Oscillators. <i>Nonlinear Dynamics</i> , <b>2006</b> , 47, 285-309	5	66
23	Experimental demonstration of transient resonance capture in a system of two coupled oscillators with essential stiffness nonlinearity. <i>Journal of Sound and Vibration</i> , <b>2007</b> , 299, 822-838	3.9	63
22	Enhancing the Robustness of Aeroelastic Instability Suppression Using Multi-Degree-of-Freedom Nonlinear Energy Sinks. <i>AIAA Journal</i> , <b>2008</b> , 46, 1371-1394	2.1	45
21	Energy Transfers in a System of Two Coupled Oscillators with Essential Nonlinearity: 1:1 Resonance Manifold and Transient Bridging Orbits. <i>Nonlinear Dynamics</i> , <b>2005</b> , 42, 283-303	5	42
20	Complex dynamics and targeted energy transfer in linear oscillators coupled to multi-degree-of-freedom essentially nonlinear attachments. <i>Nonlinear Dynamics</i> , <b>2007</b> , 48, 285-318	5	39
19	Broadband passive targeted energy pumping from a linear dispersive rod to a lightweight essentially non-linear end attachment. <i>International Journal of Non-Linear Mechanics</i> , <b>2007</b> , 42, 773-788	2.8	29
18	A Frequency Domain Versus a Time Domain Identification Technique for Nonlinear Parameters Applied to Wire Rope Isolators. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , <b>2001</b> , 123, 645-650	1.6	24
17	Impulsive periodic and quasi-periodic orbits of coupled oscillators with essential stiffness nonlinearity. <i>Communications in Nonlinear Science and Numerical Simulation</i> , <b>2008</b> , 13, 959-978	3.7	22

16	Feature extraction using auto-associative neural networks. <i>Smart Materials and Structures</i> , <b>2004</b> , 13, 211-219	3.4	21
15	Bayesian model updating of nonlinear systems using nonlinear normal modes. <i>Structural Control and Health Monitoring</i> , <b>2018</b> , 25, e2258	4.5	20
14	Flutter Control of a Two-Degrees-of-Freedom Airfoil Using a Nonlinear Tuned Vibration Absorber. <i>Journal of Computational and Nonlinear Dynamics</i> , <b>2017</b> , 12,	1.4	17
13	Transient dynamics of a dispersive elastic wave guide weakly coupled to an essentially nonlinear end attachment. <i>Wave Motion</i> , <b>2005</b> , 41, 109-132	1.8	15
12	Experimental Passive Flutter Suppression Using a Linear Tuned Vibration Absorber. <i>AIAA Journal</i> , <b>2017</b> , 55, 1707-1722	2.1	14
11	Generation of Accurate Finite Element Models of Nonlinear Systems [Application to an Aeroplane-Like Structure. <i>Nonlinear Dynamics</i> , <b>2005</b> , 39, 129-142	5	14
10	Phase resonance nonlinear modes of mechanical systems. <i>Journal of Sound and Vibration</i> , <b>2021</b> , 511, 116355	3.9	9
9	Finite element model reduction for space thermal analysis. <i>Finite Elements in Analysis and Design</i> , <b>2017</b> , 127, 6-15	2.2	6
8	Bridging the Gap Between Nonlinear Normal Modes and Modal Derivatives. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2016</b> , 349-361	0.3	4
7	Suppression of Limit Cycle Oscillations with a Nonlinear Energy Sink: Experimental Results <b>2006</b> ,		3
6	Nonparametric Subspace Identification of Nonlinear Structures - Application to a Spacecraft <b>2013</b> ,		2
5	Bayesian model updating and class selection of a wing-engine structure with nonlinear connections using nonlinear normal modes. <i>Mechanical Systems and Signal Processing</i> , <b>2022</b> , 165, 108337	7.8	2
4	Proper Orthogonal Decomposition for Nonlinear Radiative Heat Transfer Problems <b>2011</b> ,		1
3	Obtaining Nonlinear Frequency Responses from Broadband Testing. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2016</b> , 219-227	0.3	0
2	Detection and Quantification of Nonlinear Dynamic Behaviors in Space Structures. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , <b>2011</b> , 109-117	0.3	
1	Characterizing Fundamental, Superharmonic, and Subharmonic Resonances Using Phase Resonance Nonlinear Modes <b>2022</b> , 661-671		