

Alexander F Vakakis

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394
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447
ext. papers

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avg, IF

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L-index

#	Paper	IF	Citations
394	Past, present and future of nonlinear system identification in structural dynamics. <i>Mechanical Systems and Signal Processing</i> , 2006 , 20, 505-592	7.8	729
393	The Method of Proper Orthogonal Decomposition for Dynamical Characterization and Order Reduction of Mechanical Systems: An Overview. <i>Nonlinear Dynamics</i> , 2005 , 41, 147-169	5	530
392	Nonlinear normal modes, Part I: A useful framework for the structural dynamicist. <i>Mechanical Systems and Signal Processing</i> , 2009 , 23, 170-194	7.8	444
391	Energy Pumping in Nonlinear Mechanical Oscillators: Part II Resonance Capture. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2001 , 68, 42-48	2.7	404
390	Energy Pumping in Nonlinear Mechanical Oscillators: Part I Dynamics of the Underlying Hamiltonian Systems. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2001 , 68, 34-41	2.7	368
389	Inducing Passive Nonlinear Energy Sinks in Vibrating Systems. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2001 , 123, 324-332	1.6	242
388	1996 ,		237
387	NON-LINEAR NORMAL MODES (NNMs) AND THEIR APPLICATIONS IN VIBRATION THEORY: AN OVERVIEW. <i>Mechanical Systems and Signal Processing</i> , 1997 , 11, 3-22	7.8	202
386	Experimental study of non-linear energy pumping occurring at a single fast frequency. <i>International Journal of Non-Linear Mechanics</i> , 2005 , 40, 891-899	2.8	170
385	Targeted energy transfers in vibro-impact oscillators for seismic mitigation. <i>Nonlinear Dynamics</i> , 2007 , 50, 651-677	5	160
384	Simulation of dynamics of beam structures with bolted joints using adjusted Iwan beam elements. <i>Journal of Sound and Vibration</i> , 2004 , 273, 249-276	3.9	158
383	Dynamics of linear discrete systems connected to local, essentially non-linear attachments. <i>Journal of Sound and Vibration</i> , 2003 , 264, 559-577	3.9	158
382	Complicated dynamics of a linear oscillator with a light, essentially nonlinear attachment. <i>Physica D: Nonlinear Phenomena</i> , 2005 , 204, 41-69	3.3	147
381	PROPER ORTHOGONAL DECOMPOSITION (POD) OF A CLASS OF VIBROIMPACT OSCILLATIONS. <i>Journal of Sound and Vibration</i> , 2001 , 240, 859-889	3.9	147
380	Suppression Aeroelastic Instability Using Broadband Passive Targeted Energy Transfers, Part 1: Theory. <i>AIAA Journal</i> , 2007 , 45, 693-711	2.1	145
379	Irreversible Passive Energy Transfer in Coupled Oscillators with Essential Nonlinearity. <i>SIAM Journal on Applied Mathematics</i> , 2005 , 66, 648-679	1.8	128
378	Breaking Lorentz reciprocity to overcome the time-bandwidth limit in physics and engineering. <i>Science</i> , 2017 , 356, 1260-1264	33.3	120

377	Steady State Passive Nonlinear Energy Pumping in Coupled Oscillators: Theoretical and Experimental Results. <i>Nonlinear Dynamics</i> , 2003 , 33, 87-102	5	120
376	Suppressing Aeroelastic Instability Using Broadband Passive Targeted Energy Transfers, Part 2: Experiments. <i>AIAA Journal</i> , 2007 , 45, 2391-2400	2.1	112
375	Resonance captures and targeted energy transfers in an inertially-coupled rotational nonlinear energy sink. <i>Nonlinear Dynamics</i> , 2012 , 69, 1693-1704	5	105
374	Numerical and experimental investigation of a highly effective single-sided vibro-impact non-linear energy sink for shock mitigation. <i>International Journal of Non-Linear Mechanics</i> , 2013 , 52, 96-109	2.8	103
373	Periodic orbits, damped transitions and targeted energy transfers in oscillators with vibro-impact attachments. <i>Physica D: Nonlinear Phenomena</i> , 2009 , 238, 1868-1896	3.3	102
372	New family of solitary waves in granular dimer chains with no precompression. <i>Physical Review E</i> , 2011 , 83, 036606	2.4	97
371	Application of broadband nonlinear targeted energy transfers for seismic mitigation of a shear frame: Experimental results. <i>Journal of Sound and Vibration</i> , 2008 , 313, 57-76	3.9	93
370	Comparing Linear and Essentially Nonlinear Vibration-Based Energy Harvesting. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2011 , 133,	1.6	86
369	Dynamics of a linear beam with an attached local nonlinear energy sink. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2007 , 12, 643-651	3.7	82
368	Effective Stiffening and Damping Enhancement of Structures With Strongly Nonlinear Local Attachments. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2012 , 134,	1.6	78
367	Traveling waves and localized modes in one-dimensional homogeneous granular chains with no precompression. <i>Physical Review E</i> , 2010 , 82, 026603	2.4	77
366	Dynamics of an Eccentric Rotational Nonlinear Energy Sink. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012 , 79,	2.7	76
365	Efficiency of targeted energy transfers in coupled nonlinear oscillators associated with 1:1 resonance captures: Part I. <i>Journal of Sound and Vibration</i> , 2008 , 311, 1228-1248	3.9	74
364	Normal modes and global dynamics of a two-degree-of-freedom non-linear system□ Low energies. <i>International Journal of Non-Linear Mechanics</i> , 1992 , 27, 861-874	2.8	74
363	Experimental study of non-linear effects in a typical shear lap joint configuration. <i>Journal of Sound and Vibration</i> , 2004 , 277, 327-351	3.9	69
362	Nonlinear Vibrations and Multiple Resonances of Fluid-Filled, Circular Shells, Part 1: Equations of Motion and Numerical Results. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2000 , 122, 346-354	1.6	69
361	Efficiency of targeted energy transfers in coupled nonlinear oscillators associated with 1:1 resonance captures: Part II, analytical study. <i>Journal of Sound and Vibration</i> , 2009 , 325, 297-320	3.9	68
360	Experimental investigation of targeted energy transfers in strongly and nonlinearly coupled oscillators. <i>Journal of the Acoustical Society of America</i> , 2005 , 118, 791-799	2.2	68

359	Non-similar normal oscillations in a strongly non-linear discrete system. <i>Journal of Sound and Vibration</i> , 1992 , 158, 341-361	3.9	67
358	Passive damping enhancement of a two-degree-of-freedom system through a strongly nonlinear two-degree-of-freedom attachment. <i>Journal of Sound and Vibration</i> , 2012 , 331, 5393-5407	3.9	66
357	Theoretical and Experimental Study of Multimodal Targeted Energy Transfer in a System of Coupled Oscillators. <i>Nonlinear Dynamics</i> , 2006 , 47, 285-309	5	66
356	Dynamics of a Linear Oscillator Coupled to a Bistable Light Attachment: Analytical Study. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2014 , 81,	2.7	63
355	Asymptotic Analysis of Passive Nonlinear Suppression of Aeroelastic Instabilities of a Rigid Wing in Subsonic Flow. <i>SIAM Journal on Applied Mathematics</i> , 2010 , 70, 1655-1677	1.8	63
354	Experimental demonstration of transient resonance capture in a system of two coupled oscillators with essential stiffness nonlinearity. <i>Journal of Sound and Vibration</i> , 2007 , 299, 822-838	3.9	63
353	Mode Localization in a Class of Multidegree-of-Freedom Nonlinear Systems with Cyclic Symmetry. <i>SIAM Journal on Applied Mathematics</i> , 1993 , 53, 265-282	1.8	63
352	Nonlinear system identification of frictional effects in a beam with a bolted joint connection. <i>Mechanical Systems and Signal Processing</i> , 2013 , 39, 245-264	7.8	62
351	A Multiple-Scales Analysis of Nonlinear, Localized Modes in a Cyclic Periodic System. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1993 , 60, 388-397	2.7	62
350	Nonlinear normal modes and band zones in granular chains with no pre-compression. <i>Nonlinear Dynamics</i> , 2011 , 63, 359-385	5	61
349	Enhanced passive targeted energy transfer in strongly nonlinear mechanical oscillators. <i>Journal of Sound and Vibration</i> , 2011 , 330, 1-8	3.9	61
348	Large-scale experimental evaluation and numerical simulation of a system of nonlinear energy sinks for seismic mitigation. <i>Engineering Structures</i> , 2014 , 77, 34-48	4.7	60
347	Toward a Fundamental Understanding of the Hilbert-Huang Transform in Nonlinear Structural Dynamics. <i>JVC/Journal of Vibration and Control</i> , 2008 , 14, 77-105	2	59
346	An Energy-Based Formulation for Computing Nonlinear Normal Modes in Undamped Continuous Systems. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 1994 , 116, 332-340	1.6	59
345	Using passive nonlinear targeted energy transfer to stabilize drill-string systems. <i>Mechanical Systems and Signal Processing</i> , 2009 , 23, 148-169	7.8	58
344	Tunable, broadband nonlinear nanomechanical resonator. <i>Nano Letters</i> , 2010 , 10, 1793-8	11.5	57
343	Physics-Based Foundation for Empirical Mode Decomposition. <i>AIAA Journal</i> , 2009 , 47, 2938-2963	2.1	54
342	Suppression of limit cycle oscillations in the van der Pol oscillator by means of passive non-linear energy sinks. <i>Structural Control and Health Monitoring</i> , 2006 , 13, 41-75	4.5	54

341	Nonlinear wave transmission in a monocoupled elastic periodic system. <i>Journal of the Acoustical Society of America</i> , 1995 , 98, 1534-1546	2.2	53
340	Isolated Resonance Captures and Resonance Capture Cascades Leading to Single- or Multi-Mode Passive Energy Pumping in Damped Coupled Oscillators. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2004 , 126, 235-244	1.6	52
339	Vibration reduction in unbalanced hollow rotor systems with nonlinear energy sinks. <i>Nonlinear Dynamics</i> , 2015 , 79, 527-538	5	51
338	An "Interesting" Strange Attractor in the Dynamics of a Hopping Robot. <i>International Journal of Robotics Research</i> , 1991 , 10, 606-618	5.7	51
337	Dynamics of a nonlinear periodic structure with cyclic symmetry. <i>Acta Mechanica</i> , 1992 , 95, 197-226	2.1	51
336	Normal modes and global dynamics of a two-degree-of-freedom non-linear system. High energies. <i>International Journal of Non-Linear Mechanics</i> , 1992 , 27, 875-888	2.8	50
335	Wavelet-bounded empirical mode decomposition for measured time series analysis. <i>Mechanical Systems and Signal Processing</i> , 2018 , 99, 14-29	7.8	48
334	Experimental system identification of the dynamics of a vibro-impact beam with a view towards structural health monitoring and damage detection. <i>Mechanical Systems and Signal Processing</i> , 2014 , 46, 91-113	7.8	48
333	Numerical and experimental investigations of a rotating nonlinear energy sink. <i>Meccanica</i> , 2017 , 52, 763-779	7.7	46
332	Enhancing the Robustness of Aeroelastic Instability Suppression Using Multi-Degree-of-Freedom Nonlinear Energy Sinks. <i>AIAA Journal</i> , 2008 , 46, 1371-1394	2.1	45
331	Nonlinear hardening and softening resonances in micromechanical cantilever-nanotube systems originated from nanoscale geometric nonlinearities. <i>International Journal of Solids and Structures</i> , 2012 , 49, 2059-2065	3.1	44
330	Response attenuation in a large-scale structure subjected to blast excitation utilizing a system of essentially nonlinear vibration absorbers. <i>Journal of Sound and Vibration</i> , 2017 , 389, 52-72	3.9	44
329	Application of broadband nonlinear targeted energy transfers for seismic mitigation of a shear frame: Computational results. <i>Journal of Sound and Vibration</i> , 2010 , 329, 2973-2994	3.9	44
328	Non-linear dynamics of a system of coupled oscillators with essential stiffness non-linearities. <i>International Journal of Non-Linear Mechanics</i> , 2004 , 39, 1079-1091	2.8	44
327	Forced localization in a periodic chain of non-linear oscillators. <i>International Journal of Non-Linear Mechanics</i> , 1994 , 29, 429-447	2.8	44
326	Strongly Nonlinear Beat Phenomena and Energy Exchanges in Weakly Coupled Granular Chains on Elastic Foundations. <i>SIAM Journal on Applied Mathematics</i> , 2012 , 72, 337-361	1.8	43
325	Energy Transfers in a System of Two Coupled Oscillators with Essential Nonlinearity: 1:1 Resonance Manifold and Transient Bridging Orbits. <i>Nonlinear Dynamics</i> , 2005 , 42, 283-303	5	42
324	High-frequency vibration energy harvesting from impulsive excitation utilizing intentional dynamic instability caused by strong nonlinearity. <i>Journal of Sound and Vibration</i> , 2016 , 370, 259-279	3.9	41

323	Experimental Testing and Numerical Simulation of a Six-Story Structure Incorporating Two-Degree-of-Freedom Nonlinear Energy Sink. <i>Journal of Structural Engineering</i> , 2014 , 140, 04014027	3	41
322	Alternation of regular and chaotic dynamics in a simple two-degree-of-freedom system with nonlinear inertial coupling. <i>Chaos</i> , 2012 , 22, 013118	3.3	41
321	Vibro-impact attachments as shock absorbers. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2008 , 222, 1899-1908	1.3	41
320	IDENTIFICATION OF BOLTED JOINTS THROUGH LASER VIBROMETRY. <i>Journal of Sound and Vibration</i> , 2001 , 246, 441-460	3.9	41
319	Subharmonic travelling waves in a geometrically non-linear circular plate. <i>International Journal of Non-Linear Mechanics</i> , 1994 , 29, 233-245	2.8	41
318	Dynamic instabilities in coupled oscillators induced by geometrically nonlinear damping. <i>Nonlinear Dynamics</i> , 2012 , 67, 807-827	5	40
317	A study on torsional vibration attenuation in automotive drivetrains using absorbers with smooth and non-smooth nonlinearities. <i>Applied Mathematical Modelling</i> , 2017 , 46, 674-690	4.5	40
316	Nonlinear targeted energy transfer and macroscopic analog of the quantum Landau-Zener effect in coupled granular chains. <i>Physica D: Nonlinear Phenomena</i> , 2013 , 252, 46-58	3.3	40
315	A global approach to nonlinear system identification: A review. <i>Structural Control and Health Monitoring</i> , 2010 , 17, 742-760	4.5	39
314	Complex dynamics and targeted energy transfer in linear oscillators coupled to multi-degree-of-freedom essentially nonlinear attachments. <i>Nonlinear Dynamics</i> , 2007 , 48, 285-318	5	39
313	Numerical and experimental analysis of a continuous overhung rotor undergoing vibro-impacts. <i>International Journal of Non-Linear Mechanics</i> , 1999 , 34, 415-435	2.8	39
312	Nonlinear Resonances Leading to Strong Pulse Attenuation in Granular Dimer Chains. <i>Journal of Nonlinear Science</i> , 2013 , 23, 363-392	2.8	38
311	Reduced-order model for laminar vortex-induced vibration of a rigid circular cylinder with an internal nonlinear absorber. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2013 , 18, 1916-1930	3.7	37
310	Targeted Energy Transfer Between a Model Flexible Wing and Nonlinear Energy Sink. <i>Journal of Aircraft</i> , 2010 , 47, 1918-1931	1.6	36
309	Nonreciprocity in the dynamics of coupled oscillators with nonlinearity, asymmetry, and scale hierarchy. <i>Physical Review E</i> , 2018 , 97, 012219	2.4	35
308	NON-LINEAR NORMAL MODES AND NON-PARAMETRIC SYSTEM IDENTIFICATION OF NON-LINEAR OSCILLATORS. <i>Mechanical Systems and Signal Processing</i> , 2000 , 14, 37-48	7.8	35
307	Experimental Study of Strongly Nonlinear Resonances and Anti-Resonances in Granular Dimer Chains. <i>Experimental Mechanics</i> , 2013 , 53, 861-870	2.6	34
306	Atomic force microscope infrared spectroscopy on 15 nm scale polymer nanostructures. <i>Review of Scientific Instruments</i> , 2013 , 84, 023709	1.7	34

305	A time-domain nonlinear system identification method based on multiscale dynamic partitions. <i>Meccanica</i> , 2011 , 46, 625-649	2.1	34
304	An Energy-Based Approach to Computing Resonant Nonlinear Normal Modes. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1996 , 63, 810-819	2.7	34
303	Shock Isolation Through the Use of Nonlinear Energy Sinks. <i>JVC/Journal of Vibration and Control</i> , 2003 , 9, 79-93	2	34
302	SHOCK ISOLATION THROUGH PASSIVE ENERGY PUMPING CAUSED BY NONSMOOTH NONLINEARITIES. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 2005 , 15, 1989-2001	2	34
301	Interaction Between Slow and Fast Oscillations in an Infinite Degree-of-Freedom Linear System Coupled to a Nonlinear Subsystem: Theory and Experiment. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1999 , 66, 448-459	2.7	34
300	Energy Harvesting From Impulsive Loads Using Intentional Essential Nonlinearities. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2011 , 133,	1.6	33
299	Vibration energy harvesting from impulsive excitations via a bistable nonlinear attachment. <i>International Journal of Non-Linear Mechanics</i> , 2017 , 94, 84-97	2.8	32
298	Passive targeted energy transfers and strong modal interactions in the dynamics of a thin plate with strongly nonlinear attachments. <i>International Journal of Solids and Structures</i> , 2009 , 46, 2330-2353	3.1	32
297	Shock Mitigation by Means of Low- to High-Frequency Nonlinear Targeted Energy Transfers in a Large-Scale Structure. <i>Journal of Computational and Nonlinear Dynamics</i> , 2016 , 11,	1.4	31
296	Modeling and measurement of geometrically nonlinear damping in a microcantilever-nanotube system. <i>ACS Nano</i> , 2013 , 7, 8547-53	16.7	31
295	Energy equipartition in two-dimensional granular systems with spherical intruders. <i>Physical Review E</i> , 2013 , 87,	2.4	31
294	Passive non-linear targeted energy transfer and its applications to vibration absorption: A review. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2008 , 222, 77-134	0.9	31
293	Analytical study of similar normal modes and their bifurcations in a class of strongly non-linear systems. <i>International Journal of Non-Linear Mechanics</i> , 1990 , 25, 521-533	2.8	31
292	Methodology for model updating of mechanical components with local nonlinearities. <i>Journal of Sound and Vibration</i> , 2015 , 357, 331-348	3.9	30
291	Strongly nonlinear beats in the dynamics of an elastic system with a strong local stiffness nonlinearity: Analysis and identification. <i>Journal of Sound and Vibration</i> , 2014 , 333, 2054-2072	3.9	30
290	Dynamic interaction of a semi-infinite linear chain of coupled oscillators with a strongly nonlinear end attachment. <i>Physica D: Nonlinear Phenomena</i> , 2003 , 178, 1-18	3.3	30
289	Nonlinear Vibrations and Multiple Resonances of Fluid-Filled, Circular Shells, Part 2: Perturbation Analysis. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2000 , 122, 355-364	1.6	30
288	Realization of a Strongly Nonlinear Vibration-Mitigation Device Using Elastomeric Bumpers. <i>Journal of Engineering Mechanics - ASCE</i> , 2014 , 140, 04014009	2.4	29

- 287 On the effect of multiple parallel nonlinear absorbers in palliation of torsional response of automotive drivetrain. *International Journal of Non-Linear Mechanics*, **2017**, 96, 22-35 2.8 29
- 286 DIRECT AND INVERSE PROBLEMS ENCOUNTERED IN VIBRO-IMPACT OSCILLATIONS OF A DISCRETE SYSTEM. *Journal of Sound and Vibration*, **1998**, 216, 227-250 3.9 29
- 285 Broadband passive targeted energy pumping from a linear dispersive rod to a lightweight essentially non-linear end attachment. *International Journal of Non-Linear Mechanics*, **2007**, 42, 773-788 2.8 29
- 284 Karhunen-Loe' ve Modes of a Truss: Transient Response Reconstruction and Experimental Verification. *AIAA Journal*, **2001**, 39, 687-696 2.1 29
- 283 The effect of a viscously damped dynamic absorber on a linear multi-degree-of-freedom system. *Journal of Sound and Vibration*, **1986**, 105, 49-60 3.9 29
- 282 Transient and chaotic low-energy transfers in a system with bistable nonlinearity. *Chaos*, **2015**, 25, 053109 3.3 28
- 281 Analytical characterization of damping in gear teeth dynamics under hydrodynamic conditions. *Mechanism and Machine Theory*, **2015**, 94, 141-147 4 28
- 280 Design, simulation, and large-scale testing of an innovative vibration mitigation device employing essentially nonlinear elastomeric springs. *Earthquake Engineering and Structural Dynamics*, **2014**, 43, 1829-1851 4.28 28
- 279 Targeted energy transfer and modal energy redistribution in automotive drivetrains. *Nonlinear Dynamics*, **2017**, 87, 169-190 5 28
- 278 Experimental study of nonlinear acoustic bands and propagating breathers in ordered granular media embedded in matrix. *Granular Matter*, **2015**, 17, 49-72 2.6 28
- 277 Nonlinear system identification of the dynamics of a vibro-impact beam: numerical results. *Archive of Applied Mechanics*, **2012**, 82, 1461-1479 2.2 28
- 276 Transient resonant interactions of finite linear chains with essentially nonlinear end attachments leading to passive energy pumping. *International Journal of Solids and Structures*, **2004**, 41, 6505-6528 3.1 28
- 275 Acoustic nonreciprocity in a lattice incorporating nonlinearity, asymmetry, and internal scale hierarchy: Experimental study. *Physical Review E*, **2018**, 97, 052211 2.4 28
- 274 Frequency-energy plots of steady-state solutions for forced and damped systems, and vibration isolation by nonlinear mode localization. *Communications in Nonlinear Science and Numerical Simulation*, **2014**, 19, 2905-2917 3.7 27
- 273 Transitions from localization to nonlocalization in strongly nonlinear damped oscillators. *Chaos, Solitons and Fractals*, **2000**, 11, 1535-1542 9.3 27
- 272 Nonlinear low-to-high-frequency energy cascades in diatomic granular crystals. *Physical Review E*, **2015**, 92, 062201 2.4 26
- 271 Non-linear system identification of the dynamics of aeroelastic instability suppression based on targeted energy transfers. *Aeronautical Journal*, **2010**, 114, 61-82 0.9 26
- 270 Study of a class of subharmonic motions using a non-smooth temporal transformation (NSTT). *Physica D: Nonlinear Phenomena*, **1997**, 100, 145-164 3.3 26

269	Resonant oscillations of a weakly coupled, nonlinear layered system. <i>Acta Mechanica</i> , 1998 , 128, 59-80	2.1	26
268	Multi-frequency nonlinear energy transfer from linear oscillators to mdof essentially nonlinear attachments. <i>Journal of Sound and Vibration</i> , 2005 , 285, 483-490	3.9	26
267	Utilizing intentional internal resonance to achieve multi-harmonic atomic force microscopy. <i>Nanotechnology</i> , 2016 , 27, 125501	3.4	25
266	Acoustic diode: Wave non-reciprocity in nonlinearly coupled waveguides. <i>Wave Motion</i> , 2018 , 83, 49-66	1.8	25
265	Rotary-oscillatory nonlinear energy sink of robust performance. <i>International Journal of Non-Linear Mechanics</i> , 2019 , 117, 103249	2.8	25
264	Interactions of propagating waves in a one-dimensional chain of linear oscillators with a strongly nonlinear local attachment. <i>Meccanica</i> , 2014 , 49, 2375-2397	2.1	25
263	Effect of an internal nonlinear rotational dissipative element on vortex shedding and vortex-induced vibration of a sprung circular cylinder. <i>Journal of Fluid Mechanics</i> , 2017 , 828, 196-235	3.7	25
262	Targeted Energy Transfer Between a Swept Wing and Winglet-Housed Nonlinear Energy Sink. <i>AIAA Journal</i> , 2014 , 52, 2633-2651	2.1	25
261	Current efforts towards a non-linear system identification methodology of broad applicability. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2011 , 225, 2497-2515	1.3	25
260	Analytic Approximation of the Homoclinic Orbits of the Lorenz System at $\epsilon = 10^{-10}$, $b = 8/3$ and $\epsilon = 13.926\dots$. <i>Nonlinear Dynamics</i> , 1998 , 15, 245-257	5	25
259	Karhunen-Lo-cvedil;ve Decomposition of the Transient Dynamics of a Multibay Truss. <i>AIAA Journal</i> , 1999 , 37, 939-946	2.1	25
258	Vortex-induced vibration of a linearly sprung cylinder with an internal rotational nonlinear energy sink in turbulent flow. <i>Nonlinear Dynamics</i> , 2020 , 99, 593-609	5	25
257	Tunable Acoustic Nonreciprocity in Strongly Nonlinear Waveguides with Asymmetry. <i>Physical Review Applied</i> , 2019 , 12,	4.3	24
256	A new way to introduce geometrically nonlinear stiffness and damping with an application to vibration suppression. <i>Nonlinear Dynamics</i> , 2019 , 96, 1819-1845	5	24
255	Broadband non-reciprocity with robust signal integrity in a triangle-shaped nonlinear 1D metamaterial. <i>Nonlinear Dynamics</i> , 2020 , 100, 1-13	5	24
254	Nonreciprocal acoustics and dynamics in the in-plane oscillations of a geometrically nonlinear lattice. <i>Physical Review E</i> , 2016 , 94, 032214	2.4	24
253	Scattering of Solitary Waves and Excitation of Transient Breathers in Granular Media by Light Intruders and No Precompression. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2012 , 79,	2.7	24
252	Multi-scaled analysis of the damped dynamics of an elastic rod with an essentially nonlinear end attachment. <i>International Journal of Solids and Structures</i> , 2007 , 44, 6256-6278	3.1	24

251	Transitions from Strongly to Weakly Nonlinear Motions of Damped Nonlinear Oscillators. <i>Nonlinear Dynamics</i> , 1999 , 20, 99-114	5	24
250	Strong geometric softening/hardening nonlinearities in an oscillator composed of linear stiffness and damping elements. <i>International Journal of Non-Linear Mechanics</i> , 2018 , 107, 94-111	2.8	24
249	Multi-frequency Atomic Force Microscopy based on enhanced internal resonance of an inner-paddled cantilever. <i>Sensors and Actuators A: Physical</i> , 2018 , 273, 206-220	3.9	23
248	Methodology for nonlinear quantification of a flexible beam with a local, strong nonlinearity. <i>Journal of Sound and Vibration</i> , 2017 , 388, 298-314	3.9	23
247	Transonic Aeroelastic Instability Suppression for a Swept Wing by Targeted Energy Transfer. <i>Journal of Aircraft</i> , 2014 , 51, 1467-1482	1.6	23
246	A Degenerate Bifurcation Structure in the Dynamics of Coupled Oscillators with Essential Stiffness Nonlinearities. <i>Nonlinear Dynamics</i> , 2003 , 33, 1-10	5	23
245	Passive spatial confinement of impulsive responses in coupled nonlinear beams. <i>AIAA Journal</i> , 1994 , 32, 1902-1910	2.1	23
244	A micromechanical mass sensing method based on amplitude tracking within an ultra-wide broadband resonance. <i>Nonlinear Dynamics</i> , 2018 , 92, 287-304	5	22
243	Computational study of vortex-induced vibration of a sprung rigid circular cylinder with a strongly nonlinear internal attachment. <i>Journal of Fluids and Structures</i> , 2013 , 40, 214-232	3.1	22
242	Frequency bands of strongly nonlinear homogeneous granular systems. <i>Physical Review E</i> , 2013 , 88, 012206	2.06	22
241	Application of Nonlinear Localization to the Optimization of a Vibration Isolation System. <i>AIAA Journal</i> , 1997 , 35, 1378-1386	2.1	22
240	Impulsive periodic and quasi-periodic orbits of coupled oscillators with essential stiffness nonlinearity. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2008 , 13, 959-978	3.7	22
239	Triggering mechanisms of limit cycle oscillations due to aeroelastic instability. <i>Journal of Fluids and Structures</i> , 2005 , 21, 485-529	3.1	22
238	Topics on the Nonlinear Dynamics and Acoustics of Ordered Granular Media 2017 ,		22
237	Strongly nonlinear traveling waves in granular dimer chains. <i>Mechanical Systems and Signal Processing</i> , 2013 , 39, 91-107	7.8	21
236	Improved atomic force microscope infrared spectroscopy for rapid nanometer-scale chemical identification. <i>Nanotechnology</i> , 2013 , 24, 444007	3.4	21
235	Solitary waves in a general class of granular dimer chains. <i>Journal of Applied Physics</i> , 2012 , 112, 034908	2.5	21
234	Numerical and Experimental Study of Nonlinear Localization in a Flexible Structure with Vibro-Impacts. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 1997 , 77, 527-541	1	21

233	Vibration energy harvesting from impulsive excitations via a bistable nonlinear attachment. Experimental study. <i>Mechanical Systems and Signal Processing</i> , 2019 , 125, 185-201	7.8	20
232	Dynamic interactions of traveling waves propagating in a linear chain with an local essentially nonlinear attachment. <i>Wave Motion</i> , 2009 , 46, 174-188	1.8	20
231	Modelling of nonlinear modal interactions in the transient dynamics of an elastic rod with an essentially nonlinear attachment. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2010 , 15, 2617-2633	3.7	20
230	Use of non-linear localization for isolating structures from earthquake-induced motions. <i>Earthquake Engineering and Structural Dynamics</i> , 1999 , 28, 21-36	4	20
229	A Theorem on the Exact Nonsimilar Steady-State Motions of a Nonlinear Oscillator. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1992 , 59, 418-424	2.7	20
228	Fundamental and subharmonic resonances in a system with a $1:1$ internal resonance. <i>Nonlinear Dynamics</i> , 1992 , 3, 123-143	5	20
227	Capture into slow-invariant-manifold in the fluid-structure dynamics of a sprung cylinder with a nonlinear rotator. <i>Journal of Fluids and Structures</i> , 2016 , 63, 155-173	3.1	20
226	Broadband passive nonlinear acoustic diode. <i>Physical Review B</i> , 2019 , 99,	3.3	19
225	Towards a new type of energy trap: Classical analog of quantum Landau-Zener tunneling. <i>International Journal of Non-Linear Mechanics</i> , 2011 , 46, 247-252	2.8	19
224	Robustness of nonlinear targeted energy transfer in coupled oscillators to changes of initial conditions. <i>Nonlinear Dynamics</i> , 2007 , 47, 377-387	5	19
223	Exponentially Small Splittings of Manifolds in a Rapidly Forced Duffing System. <i>Journal of Sound and Vibration</i> , 1994 , 170, 119-129	3.9	19
222	Free and Forced Dynamics of a Class of Periodic Elastic Systems. <i>Journal of Sound and Vibration</i> , 1994 , 172, 23-46	3.9	19
221	Nonlinear mixed solitary shear waves and pulse equi-partition in a granular network. <i>Physica D: Nonlinear Phenomena</i> , 2015 , 291, 45-61	3.3	18
220	Passive nonlinear targeted energy transfer. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	18
219	Nonlinear Oscillatory Acoustic Vacuum. <i>SIAM Journal on Applied Mathematics</i> , 2014 , 74, 1742-1762	1.8	18
218	Wavelet-bounded empirical mode decomposition for vibro-impact analysis. <i>Nonlinear Dynamics</i> , 2018 , 93, 1559-1577	5	17
217	Non-reciprocity in nonlinear elastodynamics. <i>Journal of Sound and Vibration</i> , 2018 , 412, 326-335	3.9	17
216	Influence of system parameters on dynamic behavior of gear pair with stochastic backlash. <i>Meccanica</i> , 2014 , 49, 429-440	2.1	17

215	Study of Two-Dimensional Axisymmetric Breathers Using Padé Approximants. <i>Nonlinear Dynamics</i> , 1997 , 13, 327-338	5	17
214	A method for examining steady state solutions of forced discrete systems with strong non-linearities. <i>International Journal of Non-Linear Mechanics</i> , 1991 , 26, 89-103	2.8	17
213	Effect of Pressure Distribution on Energy Dissipation in a Mechanical Lap Joint. <i>AIAA Journal</i> , 2005 , 43, 420-425	2.1	16
212	Rotary-impact nonlinear energy sink for shock mitigation: analytical and numerical investigations. <i>Archive of Applied Mechanics</i> , 2020 , 90, 495-521	2.2	16
211	Nonlinear model updating applied to the IMAC XXXII Round Robin benchmark system. <i>Mechanical Systems and Signal Processing</i> , 2017 , 88, 111-122	7.8	15
210	Toward understanding the self-adaptive dynamics of a harmonically forced beam with a sliding mass. <i>Archive of Applied Mechanics</i> , 2017 , 87, 699-720	2.2	15
209	Breather arrest, localization, and acoustic non-reciprocity in dissipative nonlinear lattices. <i>Journal of the Acoustical Society of America</i> , 2019 , 146, 826	2.2	15
208	Primary pulse transmission in coupled steel granular chains embedded in PDMS matrix: Experiment and modeling. <i>International Journal of Solids and Structures</i> , 2013 , 50, 3207-3224	3.1	15
207	Targeted energy transfers and passive acoustic wave redirection in a two-dimensional granular network under periodic excitation. <i>Journal of Applied Physics</i> , 2015 , 118, 234901	2.5	15
206	Primary wave transmission in systems of elastic rods with granular interfaces. <i>Wave Motion</i> , 2011 , 48, 568-585	1.8	15
205	Transient dynamics of a dispersive elastic wave guide weakly coupled to an essentially nonlinear end attachment. <i>Wave Motion</i> , 2005 , 41, 109-132	1.8	15
204	Sustained high-frequency energy harvesting through a strongly nonlinear electromechanical system under single and repeated impulsive excitations. <i>Journal of Sound and Vibration</i> , 2014 , 333, 3214-3235	3.9	14
203	Equivalent modal damping, stiffening and energy exchanges in multi-degree-of-freedom systems with strongly nonlinear attachments. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2012 , 226, 122-146	0.9	14
202	Mode Localization in a System of Coupled Flexible Beams with Geometric Nonlinearities. <i>ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik</i> , 1995 , 75, 127-139	1	14
201	Exact steady states of the periodically forced and damped Duffing oscillator. <i>Journal of Sound and Vibration</i> , 2018 , 413, 57-65	3.9	14
200	Non-stationary resonance dynamics of a nonlinear sonic vacuum with grounding supports. <i>Journal of Sound and Vibration</i> , 2015 , 357, 349-364	3.9	13
199	Mode complexity in a harmonically forced string with a local spring-damper and transitions from vibrations to waves. <i>Journal of Sound and Vibration</i> , 2015 , 334, 282-295	3.9	13
198	Karhunen-Loeve analysis and order reduction of the transient dynamics of linear coupled oscillators with strongly nonlinear end attachments. <i>Journal of Sound and Vibration</i> , 2008 , 309, 569-587	3.9	13

197	Axisymmetric transient solutions of the heat diffusion problem in layered composite media. <i>International Journal of Heat and Mass Transfer</i> , 2000 , 43, 3883-3895	4.9	13
196	Experimental study of steady-state localization in coupled beams with active nonlinearities. <i>Journal of Nonlinear Science</i> , 1995 , 5, 485-502	2.8	13
195	Axisymmetric elastic waves in weakly coupled layered media of infinite radial extent. <i>Journal of Sound and Vibration</i> , 1995 , 182, 283-302	3.9	13
194	Cantilever dynamics in higher-harmonic atomic force microscopy for enhanced material characterization. <i>International Journal of Solids and Structures</i> , 2017 , 110-111, 332-339	3.1	12
193	Acoustic Non-Reciprocity in Lattices With Nonlinearity, Internal Hierarchy, and Asymmetry: Computational Study. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2019 , 141,	1.6	12
192	Extreme nonlinear energy exchanges in a geometrically nonlinear lattice oscillating in the plane. <i>Journal of the Mechanics and Physics of Solids</i> , 2018 , 110, 1-20	5	12
191	Effect of 1:3 resonance on the steady-state dynamics of a forced strongly nonlinear oscillator with a linear light attachment. <i>Archive of Applied Mechanics</i> , 2014 , 84, 1189-1203	2.2	12
190	Nonlinear Pulse Equipartition in Weakly Coupled Ordered Granular Chains With No Precompression. <i>Journal of Computational and Nonlinear Dynamics</i> , 2013 , 8,	1.4	12
189	5-DOF Dynamic Model of Vehicle Shimmy System with Clearance at Universal Joint in Steering Handling Mechanism. <i>Shock and Vibration</i> , 2013 , 20, 951-961	1.1	12
188	On the Solution of the Unforced Damped Duffing Oscillator with No Linear Stiffness Term. <i>Nonlinear Dynamics</i> , 2002 , 28, 1-16	5	12
187	Study of the Oscillations of a Nonlinearly Supported String Using Nonsmooth Transformations. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 1998 , 120, 434-440	1.6	12
186	Analysis of a microsensor automatic gain control loop 1999 ,		12
185	TRANSIENT AXISYMMETRIC STRESS WAVE PROPAGATION IN WEAKLY COUPLED LAYERED STRUCTURES. <i>Journal of Sound and Vibration</i> , 1996 , 194, 389-416	3.9	12
184	An invariant manifold approach for studying waves in a one-dimensional array of non-linear oscillators. <i>International Journal of Non-Linear Mechanics</i> , 1996 , 31, 871-886	2.8	12
183	A method for studying waves with spatially localized envelopes in a class of nonlinear partial differential equations. <i>Wave Motion</i> , 1994 , 19, 391-405	1.8	12
182	Propagating discrete breathers in forced one-dimensional granular networks: theory and experiment. <i>Granular Matter</i> , 2017 , 19, 1	2.6	11
181	Effect of stochasticity on targeted energy transfer from a linear medium to a strongly nonlinear attachment. <i>Probabilistic Engineering Mechanics</i> , 2011 , 26, 119-133	2.6	11
180	Relaxation oscillations, subharmonic orbits and chaos in the dynamics of a linear lattice with a local essentially nonlinear attachment. <i>Nonlinear Dynamics</i> , 2010 , 61, 443-463	5	11

179	Vibration-Based Energy Harvesting With Essential Nonlinearities 2007 , 779		11
178	Nonlinear Transient Localization and Beat Phenomena Due to Backlash in a Coupled Flexible System. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2001 , 123, 36-44	1.6	11
177	Localized and Non-Localized Nonlinear Normal Modes in a Multi-Span Beam With Geometric Nonlinearities. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 1996 , 118, 533-542	1.6	11
176	A method of analysis for unidirectional vibration isolators with many degrees of freedom. <i>Journal of Sound and Vibration</i> , 1985 , 98, 13-23	3.9	11
175	Time-series-based nonlinear system identification of strongly nonlinear attachments. <i>Journal of Sound and Vibration</i> , 2019 , 438, 13-32	3.9	11
174	Direct detection of nonlinear modal interactions from time series measurements. <i>Mechanical Systems and Signal Processing</i> , 2019 , 125, 311-329	7.8	11
173	Influences of system parameters on dynamic behavior of the vehicle shimmy system with clearance in steering linkage. <i>JVC/Journal of Vibration and Control</i> , 2015 , 21, 359-370	2	10
172	Dynamic analysis of cross shaft type universal joint with clearance. <i>Journal of Mechanical Science and Technology</i> , 2013 , 27, 3201-3205	1.6	10
171	Nonlinear Parameter Identification of a Mechanical Interface Based on Primary Wave Scattering. <i>Experimental Mechanics</i> , 2017 , 57, 1495-1508	2.6	10
170	A Tip-Tilt-Piston Micromirror With an Elastomeric Universal Joint Fabricated via Micromasonry. <i>Journal of Microelectromechanical Systems</i> , 2015 , 24, 262-264	2.5	10
169	Silicon nano-mechanical resonators fabricated by using tip-based nanofabrication. <i>Nanotechnology</i> , 2014 , 25, 275301	3.4	10
168	Designing a Linear Structure with a Local Nonlinear Attachment for Enhanced Energy Pumping. <i>Meccanica</i> , 2003 , 38, 677-686	2.1	10
167	EXPERIMENTAL STUDY OF NON-LINEAR TRANSIENT MOTION CONFINEMENT IN A SYSTEM OF COUPLED BEAMS. <i>Journal of Sound and Vibration</i> , 1996 , 195, 629-648	3.9	10
166	Passive Suppression Mechanisms in Laminar Vortex-Induced Vibration of a Sprung Cylinder With a Strongly Nonlinear, Dissipative Oscillator. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2017 , 84,	2.7	9
165	Targeted energy transfer in laminar vortex-induced vibration of a sprung cylinder with a nonlinear dissipative rotator. <i>Physica D: Nonlinear Phenomena</i> , 2017 , 350, 26-44	3.3	9
164	Nonlinear localization, passive wave arrest and traveling breathers in two-dimensional granular networks with discontinuous lateral boundary conditions. <i>Wave Motion</i> , 2016 , 60, 196-219	1.8	9
163	Nonlinear resonances in a general class of granular dimers with no pre-compression. <i>Granular Matter</i> , 2013 , 15, 327-347	2.6	9
162	Effective particles and classification of the dynamics of homogeneous granular chains with no precompression. <i>Physical Review E</i> , 2012 , 85, 036606	2.4	9

161	Irreversible energy transfer, localization and non-reciprocity in weakly coupled, nonlinear lattices with asymmetry. <i>Physica D: Nonlinear Phenomena</i> , 2020 , 402, 132229	3.3	9
160	Damping-induced interplay between vibrations and waves in a forced non-dispersive elastic continuum with asymmetrically placed local attachments. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2015 , 471, 20140402	2.4	8
159	Accelerating oscillatory fronts in a nonlinear sonic vacuum with strong nonlocal effects. <i>Physical Review E</i> , 2016 , 93, 032216	2.4	8
158	Introduction to a topical issue 'nonlinear energy transfer in dynamical and acoustical Systems'. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	8
157	Local Nonlinear Stores Induce Global Dynamical Effects in an Experimental Model Plane. <i>AIAA Journal</i> , 2019 , 57, 4953-4965	2.1	8
156	Tailoring Strongly Nonlinear Negative Stiffness. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2014 , 136,	3	8
155	Sustained High-Frequency Dynamic Instability of a Nonlinear System of Coupled Oscillators Forced by Single or Repeated Impulses: Theoretical and Experimental Results. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2014 , 136,	1.6	8
154	Normal Modes and Boundary Layers for a Slender Tensioned Beam on a Nonlinear Foundation. <i>Nonlinear Dynamics</i> , 2001 , 25, 79-93	5	8
153	Scattering of Structural Waves by Nonlinear Elastic Joints. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 1993 , 115, 403-410	1.6	8
152	Effects of weak non-linearities on modal analysis. <i>Mechanical Systems and Signal Processing</i> , 1994 , 8, 175-198	1.98	8
151	A Nonlinear Reduced-Order Model of the Corpus Callosum Under Planar Coronal Excitation. <i>Journal of Biomechanical Engineering</i> , 2020 , 142,	2.1	8
150	Shock Isolation Through the Use of Nonlinear Energy Sinks. <i>JVC/Journal of Vibration and Control</i> , 2003 , 9, 79-93	2	8
149	Karhunen-Loeve decomposition of the transient dynamics of a multibay truss. <i>AIAA Journal</i> , 1999 , 37, 939-946	2.1	8
148	Experimental Study of Nonlinear Resonances and Anti-Resonances in a Forced, Ordered Granular Chain. <i>Experimental Mechanics</i> , 2017 , 57, 505-520	2.6	7
147	On the efficacy of friction damping in the presence of nonlinear modal interactions. <i>Journal of Sound and Vibration</i> , 2016 , 370, 209-220	3.9	7
146	Non-resonant damped transitions resembling continuous resonance scattering in coupled oscillators with essential nonlinearities. <i>Physica D: Nonlinear Phenomena</i> , 2012 , 241, 964-975	3.3	7
145	Dynamics of microcantilever integrated with geometric nonlinearity for stable and broadband nonlinear atomic force microscopy. <i>Surface Science</i> , 2012 , 606, L74-L78	1.8	7
144	Experimental Testing of a Large 9-Story Structure Equipped with Multiple Nonlinear Energy Sinks Subjected to an Impulsive Loading 2013 ,		7

143	DYNAMICS OF TRUSSES: NUMERICAL AND EXPERIMENTAL RESULTS. <i>Journal of Sound and Vibration</i> , 1998 , 214, 953-964	3.9	7
142	Broadband energy exchanges between a dissipative elastic rod and a multi-degree-of-freedom dissipative essentially non-linear attachment. <i>International Journal of Non-Linear Mechanics</i> , 2007 , 42, 36-57	2.8	7
141	Rebuttal of the steady state dynamics of a linear structure weakly coupled to an essentially nonlinear oscillator by P. Malatkar and A.H. Nayfeh. <i>Nonlinear Dynamics</i> , 2008 , 53, 167-168	5	7
140	A three-dimensional nonlinear reduced-order predictive joint model. <i>Earthquake Engineering and Engineering Vibration</i> , 2003 , 2, 59-73	2	7
139	Asymptotic analysis of nonlinear mode localization in a class of coupled continuous structures. <i>International Journal of Solids and Structures</i> , 1995 , 32, 1161-1177	3.1	7
138	A method for analyzing the interaction of nondispersive structural waves and nonlinear joints. <i>Journal of the Acoustical Society of America</i> , 1993 , 93, 849-856	2.2	7
137	Transient response of unidirectional vibration isolators with many degrees of freedom. <i>Journal of Sound and Vibration</i> , 1985 , 99, 557-562	3.9	7
136	Coexistence of multiple long-time solutions for two-dimensional laminar flow past a linearly sprung circular cylinder with a rotational nonlinear energy sink. <i>Physical Review Fluids</i> , 2019 , 4,	2.8	7
135	Pulse transmission and acoustic non-reciprocity in a granular channel with symmetry-breaking clearances. <i>Granular Matter</i> , 2020 , 22, 1	2.6	7
134	Nonlinear wave scattering at the interface of granular dimer chains and an elastically supported membrane. <i>International Journal of Solids and Structures</i> , 2020 , 182-183, 46-63	3.1	7
133	Certain aspects of the acoustics of a strongly nonlinear discrete lattice. <i>Nonlinear Dynamics</i> , 2020 , 99, 643-659	5	7
132	Vibration suppression and modal energy transfers in a linear beam with attached vibro-impact nonlinear energy sinks. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2020 , 91, 105415	3.7	6
131	Nonlinear resonances and antiresonances of a forced sonic vacuum. <i>Physical Review E</i> , 2015 , 92, 063203	2.4	6
130	Complex nonlinear dynamics in the limit of weak coupling of a system of microcantilevers connected by a geometrically nonlinear tunable nanomembrane. <i>Nanotechnology</i> , 2014 , 25, 465501	3.4	6
129	Discreteness effects in the forced dynamics of a string on a periodic array of non-linear supports. <i>International Journal of Non-Linear Mechanics</i> , 1998 , 33, 659-673	2.8	6
128	Generation of Localization in a Discrete Chain with Periodic Boundary Conditions: Numerical and Analytical Results. <i>SIAM Journal on Applied Mathematics</i> , 1998 , 58, 1730-1747	1.8	6
127	Complex dynamics of perfect discrete systems under partial follower forces. <i>International Journal of Non-Linear Mechanics</i> , 2002 , 37, 1121-1138	2.8	6
126	Dual mode vibration isolation based on non-linear mode localization. <i>International Journal of Non-Linear Mechanics</i> , 2003 , 38, 837-850	2.8	6

125	A new method to predict vessel/platform critical dynamics in a realistic seaway. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2000 , 358, 1967-1981	3	6
124	Experimental nonlinear localization in a periodically forced repetitive system of coupled magnetoelastic beams. <i>Physica D: Nonlinear Phenomena</i> , 2000 , 137, 192-201	3.3	6
123	Dynamic analysis of a unidirectional periodic isolator, consisting of identical masses and intermediate distributed resilient blocks. <i>Journal of Sound and Vibration</i> , 1985 , 103, 25-33	3.9	6
122	Intentional utilization of strong nonlinearity in structural dynamics. <i>Procedia Engineering</i> , 2017 , 199, 70-77		5
121	Wave non-reciprocity at a nonlinear structural interface. <i>Acta Mechanica</i> , 2018 , 229, 4057-4070	2.1	5
120	Experimental Blast Testing of a Large 9-Story Structure Equipped With a System of Nonlinear Energy Sinks 2013 ,		5
119	Mitigating the effect of impact loading on a vehicle using an essentially nonlinear absorber. <i>Vehicle System Dynamics</i> , 2009 , 47, 1183-1204	2.8	5
118	NEAR FIELD TRANSIENT AXISYMMETRIC WAVES IN LAYERED STRUCTURES: EFFECTS OF WEAK COUPLING. <i>International Journal for Numerical Methods in Engineering</i> , 1997 , 40, 1639-1665	2.4	5
117	Sensitive Dependence on Initial Conditions of Strongly Nonlinear Periodic Orbits of the Forced Pendulum. <i>Nonlinear Dynamics</i> , 1998 , 16, 223-237	5	5
116	Some results on the dynamics of the linear parametric oscillator with general time-varying frequency. <i>Applied Mathematics and Computation</i> , 2006 , 183, 1235-1248	2.7	5
115	Seismic base isolation by nonlinear mode localization. <i>Archive of Applied Mechanics</i> , 2005 , 74, 387-414	2.2	5
114	Nonlinear Mode Localization in Systems Governed by Partial Differential Equations. <i>Applied Mechanics Reviews</i> , 1996 , 49, 87-99	8.6	5
113	Primary pulse transmission in a strongly nonlinear periodic system. <i>Nonlinear Dynamics</i> , 1996 , 11, 61-81	5	5
112	Experimental Landau-Zener Tunneling for Wave Redirection in Nonlinear Waveguides. <i>Physical Review Applied</i> , 2020 , 14,	4.3	5
111	Ultimate Decoupling between Surface Topography and Material Functionality in Atomic Force Microscopy Using an Inner-Paddled Cantilever. <i>ACS Nano</i> , 2018 , 12, 5559-5569	16.7	5
110	New inverse wavelet transform method with broad application in dynamics. <i>Mechanical Systems and Signal Processing</i> , 2021 , 156, 107691	7.8	5
109	Modal energy exchanges in an impulsively loaded beam with a geometrically nonlinear boundary condition: computation and experiment. <i>Nonlinear Dynamics</i> , 2021 , 103, 3443-3463	5	5
108	Effects of uncertainties on pulse attenuation in dimer granular chains with and without pre-compression. <i>Continuum Mechanics and Thermodynamics</i> , 2015 , 27, 749-766	3.5	4

107	Mechanisms for impulsive energy dissipation and small-scale effects in microgranular media. <i>Physical Review E</i> , 2015 , 92, 062206	2.4	4
106	Epistemic and Aleatoric Uncertainty in Modeling 2013 ,		4
105	Shock Isolation Through Passive Energy Pumping in a System With Piecewise Linear Stiffnesses 2003 , 1569		4
104	Rapid non-resonant intermodal targeted energy transfer (IMTET) caused by vibro-impact nonlinearity. <i>Nonlinear Dynamics</i> , 2020 , 101, 2087-2106	5	4
103	Wave redirection, localization, and non-reciprocity in a dissipative nonlinear lattice by macroscopic Landau-Zener tunneling: Theoretical results. <i>Journal of Applied Physics</i> , 2021 , 129, 095105	2.5	4
102	Separation of Traveling and Standing Waves in a Rigid-Walled Circular Duct Containing an Intermediate Impedance Discontinuity. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2017 , 139,	1.6	3
101	Separation of traveling and standing waves in a finite dispersive string with partial or continuous viscoelastic foundation. <i>Journal of Sound and Vibration</i> , 2017 , 411, 193-209	3.9	3
100	Elements of a Nonlinear System Identification Methodology of Broad Applicability with Application to Bolted Joints 2018 , 355-379		3
99	2015 ,		3
98	Experimental Targeted Energy Transfer to a Rotary Nonlinear Energy Sink 2010 ,		3
97	Simulation and Testing of a 6-Story Structure Incorporating a Coupled Two Mass Nonlinear Energy Sink 2012 ,		3
96	Transonic Aeroelastic Analysis Including the Effects of a Nonlinear Energy Sink 2007 ,		3
95	Triggering Mechanisms of Limit Cycle Oscillations in a Two Degree-of-Freedom Wing Flutter Model 2005 , 1863		3
94	Suppression of Limit Cycle Oscillations with a Nonlinear Energy Sink: Experimental Results 2006 ,		3
93	Nonlinear Dynamics of a System of Coupled Oscillators With Essential Stiffness Nonlinearities 2003 , 1209		3
92	Dispersion of stress waves in one-dimensional semi-infinite, weakly coupled layered systems. <i>International Journal of Solids and Structures</i> , 1996 , 33, 4195-4213	3.1	3
91	A technique for modal identification of interfering modes. <i>Journal of Sound and Vibration</i> , 1991 , 146, 361-380	3.9	3
90	Methodologies for Nonlinear Periodic Media 2012 , 257-326		3

89	Wave redirection, localization, and non-reciprocity in a dissipative nonlinear lattice by macroscopic Landau-Zener tunneling: Experimental results. <i>AIP Advances</i> , 2021 , 11, 065328	1.5	3
88	Experimental study of embedded and non-embedded ordered granular chains under impulsive excitation. <i>Acta Mechanica</i> , 2016 , 227, 2511-2527	2.1	3
87	High-frequency vibration energy harvesting from repeated impulsive forcing utilizing intentional dynamic instability caused by strong nonlinearity. <i>Journal of Intelligent Material Systems and Structures</i> , 2017 , 28, 468-487	2.3	2
86	Traveling and solitary waves in monodisperse and dimer granular chains. <i>International Journal of Modern Physics B</i> , 2017 , 31, 1742001	1.1	2
85	Energy transmission by impact in a system of two discrete oscillators. <i>Nonlinear Dynamics</i> , 2020 , 100, 135-145	5	2
84	Ultrabroadband Microresonators with Geometrically Nonlinear Stiffness and Dissipation. <i>Physical Review Applied</i> , 2020 , 13,	4.3	2
83	Inducing a nonreflective airborne discontinuity in a circular duct by using a nonresonant side branch to create mode complexity. <i>Journal of the Acoustical Society of America</i> , 2018 , 143, 746	2.2	2
82	Nonlinear wave scattering at the flexible interface of a granular dimer chain. <i>Granular Matter</i> , 2016 , 18, 1	2.6	2
81	Global complexity effects due to local damping in a nonlinear system in 1:3 internal resonance. <i>Archive of Applied Mechanics</i> , 2016 , 86, 1083-1094	2.2	2
80	Influence of backlash in gear reducer on dynamic of single-link manipulator arm. <i>Robotica</i> , 2015 , 33, 1671-1685	2	2
79	Nonlinear System Identification of Vibro-Impact Nonsmooth Dynamical Systems 2011 ,		2
78	Application of Targeted Energy Transfer (TET) Techniques to the Seismic Protection of a Small Scale Multistorey Eccentric Steel Structure 2011 ,		2
77	Energy Harvesting From an Impulsive Load With Essential Nonlinearities 2009 ,		2
76	Localized and periodic waves with discreteness effects. <i>Mechanics Research Communications</i> , 1998 , 25, 97-104	2.2	2
75	Non-linear modal interactions in the oscillations of a liquid drop in a gravitational field. <i>International Journal of Non-Linear Mechanics</i> , 2001 , 36, 803-812	2.8	2
74	Analytic Study of Linear and Nonlinear Mode Localization. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1993 , 60, 555-557	2.7	2
73	Nonlinear targeted energy transfer: state of the art and new perspectives. <i>Nonlinear Dynamics</i> , 2011 ,	5	2
72	Splitting of Separatrices in the Rapidly Forced Duffing Oscillator 1993 ,		2

71	Complex Structure of Periodic Orbits in an Oscillator with a Vibro-Impact Attachment. <i>Lecture Notes in Applied and Computational Mechanics</i> , 2009 , 173-178	0.3	2
70	Exact solutions for a discrete systems undergoing free vibro-impact oscillations 1999 , 151-158		2
69	Model testing of a nonlinear base isolation concept 2002 , 513-520		2
68	Buckling-Mediated Phase Transitions in Nano-Electromechanical Phononic Waveguides. <i>Nano Letters</i> , 2021 , 21, 6416-6424	11.5	2
67	Damping Effects Introduced by a Nonlinear Vibration Absorber in Automotive Drivelines at Idle Engine Speeds 2016 ,		2
66	High-Frequency Dynamic Overshoot in Linear and Nonlinear Periodic Media. <i>Journal of Computational and Nonlinear Dynamics</i> , 2017 , 12,	1.4	1
65	Co-existing complexity-induced traveling wave transmission and vibration localization in Euler-Bernoulli beams. <i>Journal of Sound and Vibration</i> , 2019 , 458, 22-43	3.9	1
64	Tunable-with-energy intense modal interactions induced by geometric nonlinearity. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2020 , 095440622090862	1.3	1
63	Motion complexity in a non-classically damped system with closely spaced modes: From standing to traveling waves. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2016 , 230, 178-190	0.9	1
62	Advanced Nonlinear System Identification for Modal Interactions in Nonlinear Structures: A Review. <i>Advanced Structured Materials</i> , 2019 , 101-118	0.6	1
61	Classification of periodic orbits of two-dimensional homogeneous granular crystals with no pre-compression. <i>Nonlinear Dynamics</i> , 2014 , 76, 673-696	5	1
60	Experimental Investigation of a Rotational Nonlinear Energy Sink for Shock Mitigation 2014 ,		1
59	Targeted Energy Transfer to a Rotary Nonlinear Energy Sink 2010 ,		1
58	Numerical and Experimental Investigation of a New Nonlinear Energy Sink for Passive Shock Mitigation 2012 ,		1
57	Impurity modes in disordered nondashlinear lattices. <i>International Journal of Non-Linear Mechanics</i> , 1997 , 32, 21-30	2.8	1
56	Targeted Energy Transfer Phenomena in Vibro-Impact Oscillators. <i>AIP Conference Proceedings</i> , 2008 ,	0	1
55	Experimental Investigation of Targeted Energy Transfers in Strongly and Nonlinearly Coupled Oscillators 2005 , 1299		1
54	Buckling of an Elastic Ring Forced by a Periodic Array of Compressive Loads. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1999 , 66, 361-367	2.7	1

53	On the propagation zones of weakly bonded layered materials. <i>Journal of Sound and Vibration</i> , 1995 , 187, 178-183	3.9	1
52	Topological protection in a strongly nonlinear interface lattice. <i>Physical Review B</i> , 2021 , 104,	3.3	1
51	Time scale disparity yielding acoustic nonreciprocity in a two-dimensional granular-elastic solid interface with asymmetry. <i>Physical Review E</i> , 2021 , 104, 044906	2.4	1
50	Nonlinear System Identification of the Dynamics of a Vibro-Impact Beam. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2012 , 287-299	0.3	1
49	Passive Nonreciprocity in a System of Asymmetrical Rotational Oscillators. <i>Physical Review Applied</i> , 2021 , 15,	4.3	1
48	Wave transmission in 2D nonlinear granular-solid interfaces, including rotational and frictional effects. <i>Granular Matter</i> , 2021 , 23, 1	2.6	1
47	A spring-mass system with elastomeric beams and stretchable interconnects. <i>Journal of Micromechanics and Microengineering</i> , 2018 , 28, 014003	2	1
46	Two-dimensional nonlinear energy sink for effective passive seismic mitigation. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2021 , 99, 105787	3.7	1
45	Extreme intermodal energy transfers through vibro-impacts for highly effective and rapid blast mitigation. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2021 , 103, 106012	3.7	1
44	Dynamics of a System of Coupled Oscillators with Geometrically Nonlinear Damping. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2011 , 1-7	0.3	1
43	Exceeding the classical time-bandwidth product in nonlinear time-invariant systems. <i>Nonlinear Dynamics</i> ,1	5	1
42	Effects of Nonlinear Stores on the Dynamics of a Computational Model Airplane. <i>Journal of Aircraft</i> , 2020 , 57, 938-957	1.6	0
41	Passive Targeted Energy Transfers and Strong Modal Interactions in a Thin Plate With Strongly Nonlinear End Attachments of Different Configurations 2007 , 1355		0
40	Characterization of visco-hyperelastic behavior of open cell polyurethane foam through transient shear testing. <i>International Journal of Solids and Structures</i> , 2022 , 241, 111482	3.1	0
39	Predictive design of impact absorbers for mitigating resonances of flexible structures using a semi-analytical approach. <i>Journal of Sound and Vibration</i> , 2021 , 516, 116527	3.9	0
38	Periodically Forced Nonlinear Oscillatory Acoustic Vacuum. <i>Axioms</i> , 2018 , 7, 69	1.6	0
37	Intense cross-scale energy cascades resembling mechanical turbulence in harmonically driven strongly nonlinear hierarchical chains of oscillators. <i>Acta Mechanica</i> ,1	2.1	0
36	Generalization of the Concept of Bandwidth. <i>Journal of Sound and Vibration</i> , 2022 , 117010	3.9	0

- 35 Realization by impedance discontinuity of a unidirectional wave in a duct with harmonically perturbed uniform mean flow. *Journal of the Acoustical Society of America*, **2019**, 145, 3048 2.2
- 34 Inner-Paddled Microcantilever for Multi-modal and Nonlinear Atomic Force Microscopy. *Advanced Structured Materials*, **2019**, 27-52 0.6
- 33 Nonlinear System Identification of Mechanical Interfaces Based on Wave Scattering. *Conference Proceedings of the Society for Experimental Mechanics*, **2016**, 333-339 0.3
- 32 Nonlinear Model Updating Methodology with Application to the IMAC XXXIII Round Robin Benchmark Problem. *Conference Proceedings of the Society for Experimental Mechanics*, **2016**, 343-347 0.3
- 31 Direct Detection of Nonlinear Modal Interactions and Model Updating Using Measured Time Series. *Conference Proceedings of the Society for Experimental Mechanics*, **2019**, 23-25 0.3
- 30 Erratum for Realization of a Strongly Nonlinear Vibration-Mitigation Device Using Elastomeric Bumpers By Jie Luo, Nicholas E. Wierschem, Larry A. Fahnestock, Lawrence A. Bergman, Billie F. Spencer Jr., Mohammad AL-Shudeifat, D. Michael McFarland, D. Dane Quinn, and Alexander F. Vakakis. *Journal of Engineering Mechanics*, **2021**, 146, 06011001 2.4
- 29 TWO APPLICATIONS OF NONLINEAR NORMAL MODES IN VIBRATION ANALYSIS. *Series on Stability, Vibration and Control of Systems - Series B*, **1997**, 144-167
- 28 Exact Solutions for Transient Wave Propagation in a Two-Dimensional Array of Particles. *ZAMM Zeitschrift Fur Angewandte Mathematik Und Mechanik*, **1998**, 78, 759-770 1
- 27 Application of Broadband Nonlinear Targeted Energy Transfers to Seismic Mitigation **2007**, 1525
- 26 MOB Platform Nonlinear Dynamics in a Realistic (Random) Seaway. *Journal of Offshore Mechanics and Arctic Engineering*, **2002**, 124, 48-52 1.5
- 25 Suppression of Limit Cycle Oscillations in a Van der Pol Oscillator by Means of a Passive Nonlinear Energy Sink **2005**, 1483
- 24 Passive Transient Wave Confinement Due to Nonlinear Joints in Coupled Flexible Systems. *Nonlinear Dynamics*, **2001**, 25, 333-354 5
- 23 Nonlinear Localization in Other Continuous Systems 473-515
- 22 NNMs in Discrete Oscillators: Qualitative Results 23-68
- 21 NNMs in Discrete Oscillators: Quantitative Results 69-155
- 20 Stability and Bifurcations of NNMs 157-227
- 19 Resonances of Discrete Systems Close to NNMs 229-260
- 18 The Method of Nonsmooth Temporal Transformations (NSTTs) 261-283

- 17 Nonlinear Localization in Discrete Systems 285-347
- 16 NNMs in Continuous Systems 349-390
- 15 Nonlinear Localization in Systems of Coupled Beams 391-471
- 14 Theory of Vibration: I. An Introduction and II: Discrete and Continuous Systems (A. A. Shabana). *SIAM Review*, **1993**, 35, 540-541 7.4
- 13 Predictive Helmet Optimization Framework Based on Reduced-Order Modeling of the Brain Dynamics.. *Annals of Biomedical Engineering*, **2022**, 1 4.7
- 12 Modal Analysis of Nonlinear Mechanical Systems **2020**, 1-32
- 11 An Overview of the Minisymposium on Extreme Ship Dynamics Presented at the 2005 SIAM Conference on Applications of Dynamical Systems **2006**, 43, 55-61
- 10 NONLINEAR MODE LOCALIZATION AND PASSIVE MOTION CONFINEMENT IN DISCRETE AND CONTINUOUS SYSTEMS. *Series on Stability, Vibration and Control of Systems - Series B*, **1995**, 1-34
- 9 Nonlinear Targeted Energy Transfer and its Application to Vibration Mitigation. *CISM International Centre for Mechanical Sciences, Courses and Lectures*, **2010**, 271-300 0.6
- 8 A Global-local Approach to Nonlinear System Identification. *Conference Proceedings of the Society for Experimental Mechanics*, **2011**, 513-524 0.3
- 7 Characterization of a Strongly Nonlinear Laboratory Benchmark System. *Conference Proceedings of the Society for Experimental Mechanics*, **2011**, 1-6 0.3
- 6 Empirical Slow-Flow Identification for Structural Health Monitoring and Damage Detection. *Conference Proceedings of the Society for Experimental Mechanics*, **2014**, 617-624 0.3
- 5 Targeted energy transfer between dynamical components due to essential nonlinearities **2014**, 1921-1928
- 4 Simulating offset blast loads experimentally using shake-table-generated ground motions: Method development and validation. *Structural Control and Health Monitoring*, **2020**, 27, e2480 4.5
- 3 Local nonlinear stores induce global modal interactions in the steady-state dynamics of a model airplane. *Journal of Sound and Vibration*, **2021**, 500, 116020 3.9
- 2 Analysis of the non-periodic oscillations of a self-excited friction-damped system with closely spaced modes. *Nonlinear Dynamics*, **2021**, 106, 1659 5
- 1 Modal Analysis of Nonlinear Mechanical Systems **2022**, 799-830