

Alexander F Vakakis

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

394
papers

12,093
citations

53
h-index

94
g-index

447
ext. papers

14,070
ext. citations

3.3
avg, IF

6.65
L-index

#	Paper	IF	Citations
394	Predictive Helmet Optimization Framework Based on Reduced-Order Modeling of the Brain Dynamics.. <i>Annals of Biomedical Engineering</i> , 2022 , 1	4.7	
393	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
392	Generalization of the Concept of Bandwidth. <i>Journal of Sound and Vibration</i> , 2022 , 117010	3.9	0
391	Modal Analysis of Nonlinear Mechanical Systems 2022 , 799-830		
390	Topological protection in a strongly nonlinear interface lattice. <i>Physical Review B</i> , 2021 , 104,	3.3	1
389	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
388	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
387	Passive Nonreciprocity in a System of Asymmetrical Rotational Oscillators. <i>Physical Review Applied</i> , 2021 , 15,	4.3	1
386	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
385	Wave transmission in 2D nonlinear granular-solid interfaces, including rotational and frictional effects. <i>Granular Matter</i> , 2021 , 23, 1	2.6	1
384	Local nonlinear stores induce global modal interactions in the steady-state dynamics of a model airplane. <i>Journal of Sound and Vibration</i> , 2021 , 500, 116020	3.9	
383	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
382	Buckling-Mediated Phase Transitions in Nano-Electromechanical Phononic Waveguides. <i>Nano Letters</i> , 2021 , 21, 6416-6424	11.5	2
381	New inverse wavelet transform method with broad application in dynamics. <i>Mechanical Systems and Signal Processing</i> , 2021 , 156, 107691	7.8	5
380	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
379	Analysis of the non-periodic oscillations of a self-excited friction-damped system with closely spaced modes. <i>Nonlinear Dynamics</i> , 2021 , 106, 1659	5	
378	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

377	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
376	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
375	Effects of Nonlinear Stores on the Dynamics of a Computational Model Airplane. <i>Journal of Aircraft</i> , 2020 , 57, 938-957	1.6	0
374	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 , 09544062	1.3	1.2
373	Energy transmission by impact in a system of two discrete oscillators. <i>Nonlinear Dynamics</i> , 2020 , 100, 135-145	5	2
372	Broadband non-reciprocity with robust signal integrity in a triangle-shaped nonlinear 1D metamaterial. <i>Nonlinear Dynamics</i> , 2020 , 100, 1-13	5	24
371	Ultrabroadband Microresonators with Geometrically Nonlinear Stiffness and Dissipation. <i>Physical Review Applied</i> , 2020 , 13,	4.3	2
370	A Nonlinear Reduced-Order Model of the Corpus Callosum Under Planar Coronal Excitation. <i>Journal of Biomechanical Engineering</i> , 2020 , 142,	2.1	8
369	Modal Analysis of Nonlinear Mechanical Systems 2020 , 1-32		
368	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
367	Pulse transmission and acoustic non-reciprocity in a granular channel with symmetry-breaking clearances. <i>Granular Matter</i> , 2020 , 22, 1	2.6	7
366	Simulating offset blast loads experimentally using shake-table-generated ground motions: Method development and validation. <i>Structural Control and Health Monitoring</i> , 2020 , 27, e2480	4.5	
365	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
364	Experimental Landau-Zener Tunneling for Wave Redirection in Nonlinear Waveguides. <i>Physical Review Applied</i> , 2020 , 14,	4.3	5
363	Rapid non-resonant intermodal targeted energy transfer (IMTET) caused by vibro-impact nonlinearity. <i>Nonlinear Dynamics</i> , 2020 , 101, 2087-2106	5	4
362	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
361	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
360	Certain aspects of the acoustics of a strongly nonlinear discrete lattice. <i>Nonlinear Dynamics</i> , 2020 , 99, 643-659	5	7

359	Tunable Acoustic Nonreciprocity in Strongly Nonlinear Waveguides with Asymmetry. <i>Physical Review Applied</i> , 2019 , 12,	4.3	24
358	Broadband passive nonlinear acoustic diode. <i>Physical Review B</i> , 2019 , 99,	3.3	19
357	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
356	Realization by impedance discontinuity of a unidirectional wave in a duct with harmonically perturbed uniform mean flow. <i>Journal of the Acoustical Society of America</i> , 2019 , 145, 3048	2.2	
355	Inner-Paddled Microcantilever for Multi-modal and Nonlinear Atomic Force Microscopy. <i>Advanced Structured Materials</i> , 2019 , 27-52	0.6	
354	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
353	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
352	Direct Detection of Nonlinear Modal Interactions and Model Updating Using Measured Time Series. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2019 , 23-25	0.3	
351	Advanced Nonlinear System Identification for Modal Interactions in Nonlinear Structures: A Review. <i>Advanced Structured Materials</i> , 2019 , 101-118	0.6	1
350	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
349	Local Nonlinear Stores Induce Global Dynamical Effects in an Experimental Model Plane. <i>AIAA Journal</i> , 2019 , 57, 4953-4965	2.1	8
348	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
347	Rotary-oscillatory nonlinear energy sink of robust performance. <i>International Journal of Non-Linear Mechanics</i> , 2019 , 117, 103249	2.8	25
346	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
345	Time-series-based nonlinear system identification of strongly nonlinear attachments. <i>Journal of Sound and Vibration</i> , 2019 , 438, 13-32	3.9	11
344	Direct detection of nonlinear modal interactions from time series measurements. <i>Mechanical Systems and Signal Processing</i> , 2019 , 125, 311-329	7.8	11
343	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
342	Nonreciprocity in the dynamics of coupled oscillators with nonlinearity, asymmetry, and scale hierarchy. <i>Physical Review E</i> , 2018 , 97, 012219	2.4	35

341	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
340	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
339	Wavelet-bounded empirical mode decomposition for vibro-impact analysis. <i>Nonlinear Dynamics</i> , 2018 , 93, 1559-1577	5	17
338	Wavelet-bounded empirical mode decomposition for measured time series analysis. <i>Mechanical Systems and Signal Processing</i> , 2018 , 99, 14-29	7.8	48
337	Elements of a Nonlinear System Identification Methodology of Broad Applicability with Application to Bolted Joints 2018 , 355-379		3
336	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
335	Non-reciprocity in nonlinear elastodynamics. <i>Journal of Sound and Vibration</i> , 2018 , 412, 326-335	3.9	17
334	Passive nonlinear targeted energy transfer. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2018 , 376,	3	18
333	Wave non-reciprocity at a nonlinear structural interface. <i>Acta Mechanica</i> , 2018 , 229, 4057-4070	2.1	5
332	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
331	Acoustic diode: Wave non-reciprocity in nonlinearly coupled waveguides. <i>Wave Motion</i> , 2018 , 83, 49-66	1.8	25
330	A spring-mass system with elastomeric beams and stretchable interconnects. <i>Journal of Micromechanics and Microengineering</i> , 2018 , 28, 014003	2	1
329	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
328	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
327	Periodically Forced Nonlinear Oscillatory Acoustic Vacuum. <i>Axioms</i> , 2018 , 7, 69	1.6	0
326	Acoustic nonreciprocity in a lattice incorporating nonlinearity, asymmetry, and internal scale hierarchy: Experimental study. <i>Physical Review E</i> , 2018 , 97, 052211	2.4	28
325	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
324	Numerical and experimental investigations of a rotating nonlinear energy sink. <i>Meccanica</i> , 2017 , 52, 763-779		46

323	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
322	Traveling and solitary waves in monodisperse and dimer granular chains. <i>International Journal of Modern Physics B</i> , 2017 , 31, 1742001	1.1	2
321	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
320	Breaking Lorentz reciprocity to overcome the time-bandwidth limit in physics and engineering. <i>Science</i> , 2017 , 356, 1260-1264	33.3	120
319	High-Frequency Dynamic Overshoot in Linear and Nonlinear Periodic Media. <i>Journal of Computational and Nonlinear Dynamics</i> , 2017 , 12,	1.4	1
318	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
317	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
316	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
315	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
314	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
313	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
312	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
311	Intentional utilization of strong nonlinearity in structural dynamics. <i>Procedia Engineering</i> , 2017 , 199, 70-77		5
310	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
309	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
308	Propagating discrete breathers in forced one-dimensional granular networks: theory and experiment. <i>Granular Matter</i> , 2017 , 19, 1	2.6	11
307	On the effect of multiple parallel nonlinear absorbers in palliation of torsional response of automotive drivetrain. <i>International Journal of Non-Linear Mechanics</i> , 2017 , 96, 22-35	2.8	29
306	Nonlinear Parameter Identification of a Mechanical Interface Based on Primary Wave Scattering. <i>Experimental Mechanics</i> , 2017 , 57, 1495-1508	2.6	10

305	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
304	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
303	Targeted energy transfer and modal energy redistribution in automotive drivetrains. <i>Nonlinear Dynamics</i> , 2017 , 87, 169-190	5	28
302	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
301	Topics on the Nonlinear Dynamics and Acoustics of Ordered Granular Media 2017 ,		22
300	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
299	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
298	Accelerating oscillatory fronts in a nonlinear sonic vacuum with strong nonlocal effects. <i>Physical Review E</i> , 2016 , 93, 032216	2.4	8
297	Nonlinear wave scattering at the flexible interface of a granular dimer chain. <i>Granular Matter</i> , 2016 , 18, 1	2.6	2
296	Nonlinear System Identification of Mechanical Interfaces Based on Wave Scattering. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2016 , 333-339	0.3	
295	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
294	Utilizing intentional internal resonance to achieve multi-harmonic atomic force microscopy. <i>Nanotechnology</i> , 2016 , 27, 125501	3.4	25
293	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
292	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
291	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
290	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
289	Nonlinear Model Updating Methodology with Application to the IMAC XXXIII Round Robin Benchmark Problem. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2016 , 343-347	0.3	
288	Damping Effects Introduced by a Nonlinear Vibration Absorber in Automotive Drivelines at Idle Engine Speeds 2016 ,		2

287	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
286	Experimental study of embedded and non-embedded ordered granular chains under impulsive excitation. <i>Acta Mechanica</i> , 2016 , 227, 2511-2527	2.1	3
285	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
284	Transient and chaotic low-energy transfers in a system with bistable nonlinearity. <i>Chaos</i> , 2015 , 25, 053109	3.3	28
283	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
282	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
281	Analytical characterization of damping in gear teeth dynamics under hydrodynamic conditions. <i>Mechanism and Machine Theory</i> , 2015 , 94, 141-147	4	28
280	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
279	Methodology for model updating of mechanical components with local nonlinearities. <i>Journal of Sound and Vibration</i> , 2015 , 357, 331-348	3.9	30
278	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
277	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
276	Vibration reduction in unbalanced hollow rotor systems with nonlinear energy sinks. <i>Nonlinear Dynamics</i> , 2015 , 79, 527-538	5	51
275	Influence of backlash in gear reducer on dynamic of single-link manipulator arm. <i>Robotica</i> , 2015 , 33, 1671-1685	2.1	52
274	Mechanisms for impulsive energy dissipation and small-scale effects in microgranular media. <i>Physical Review E</i> , 2015 , 92, 062206	2.4	4
273	Nonlinear resonances and antiresonances of a forced sonic vacuum. <i>Physical Review E</i> , 2015 , 92, 063203	2.4	6
272	Nonlinear low-to-high-frequency energy cascades in diatomic granular crystals. <i>Physical Review E</i> , 2015 , 92, 062201	2.4	26
271	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
270	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

269	2015,		3
268	Experimental study of nonlinear acoustic bands and propagating breathers in ordered granular media embedded in matrix. <i>Granular Matter</i> , 2015 , 17, 49-72	2.6	28
267	Influence of system parameters on dynamic behavior of gear pair with stochastic backlash. <i>Meccanica</i> , 2014 , 49, 429-440	2.1	17
266	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
265	Realization of a Strongly Nonlinear Vibration-Mitigation Device Using Elastomeric Bumpers. <i>Journal of Engineering Mechanics - ASCE</i> , 2014 , 140, 04014009	2.4	29
264	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
263	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
262	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
261	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
260	Design, simulation, and large-scale testing of an innovative vibration mitigation device employing essentially nonlinear elastomeric springs. <i>Earthquake Engineering and Structural Dynamics</i> , 2014 , 43, 1829-1851 ²⁸	4.4	28
259	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 ³⁹	3.9	14
258	Frequency-Energy plots of steady-state solutions for forced and damped systems, and vibration isolation by nonlinear mode localization. <i>Communications in Nonlinear Science and Numerical Simulation</i> , 2014 , 19, 2905-2917	3.7	27
257	Classification of periodic orbits of two-dimensional homogeneous granular crystals with no pre-compression. <i>Nonlinear Dynamics</i> , 2014 , 76, 673-696	5	1
256	Silicon nano-mechanical resonators fabricated by using tip-based nanofabrication. <i>Nanotechnology</i> , 2014 , 25, 275301	3.4	10
255	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
254	Tailoring Strongly Nonlinear Negative Stiffness. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 2014 , 136,	3	8
253	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
252	Experimental Investigation of a Rotational Nonlinear Energy Sink for Shock Mitigation 2014 ,		1

251	Targeted Energy Transfer Between a Swept Wing and Winglet-Housed Nonlinear Energy Sink. <i>AIAA Journal</i> , 2014 , 52, 2633-2651	2.1	25
250	Transonic Aeroelastic Instability Suppression for a Swept Wing by Targeted Energy Transfer. <i>Journal of Aircraft</i> , 2014 , 51, 1467-1482	1.6	23
249	Nonlinear Oscillatory Acoustic Vacuum. <i>SIAM Journal on Applied Mathematics</i> , 2014 , 74, 1742-1762	1.8	18
248	Erratum for Realization of a Strongly Nonlinear Vibration-Mitigation Device Using Elastomeric Bumpers By Jie Luo, Nicholas E. Wierschem, Larry A. Fahnstock, Lawrence A. Bergman, Billie F. Spencer Jr., Mohammad AL-Shudeifat, D. Michael McFarland, D. Dane Quinn, and Alexander F. Vakakis. <i>Journal of Engineering Mechanics - ASCE</i> , 2014 , 140, 08014001	2.4	
247	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
246	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
245	Empirical Slow-Flow Identification for Structural Health Monitoring and Damage Detection. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2014 , 617-624	0.3	
244	Targeted energy transfer between dynamical components due to essential nonlinearities 2014 , 1921-1928		
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	Nonlinear Resonances Leading to Strong Pulse Attenuation in Granular Dimer Chains. <i>Journal of Nonlinear Science</i> , 2013 , 23, 363-392	2.8	38
241	Experimental Study of Strongly Nonlinear Resonances and Anti-Resonances in Granular Dimer Chains. <i>Experimental Mechanics</i> , 2013 , 53, 861-870	2.6	34
240	Modeling and measurement of geometrically nonlinear damping in a microcantilever-nanotube system. <i>ACS Nano</i> , 2013 , 7, 8547-53	16.7	31
239	Strongly nonlinear traveling waves in granular dimer chains. <i>Mechanical Systems and Signal Processing</i> , 2013 , 39, 91-107	7.8	21
238	Nonlinear resonances in a general class of granular dimers with no pre-compression. <i>Granular Matter</i> , 2013 , 15, 327-347	2.6	9
237	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
236	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
235	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
234	Improved atomic force microscope infrared spectroscopy for rapid nanometer-scale chemical identification. <i>Nanotechnology</i> , 2013 , 24, 444007	3.4	21

233	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
232	Energy equipartition in two-dimensional granular systems with spherical intruders. <i>Physical Review E</i> , 2013 , 87,	2.4	31
231	Atomic force microscope infrared spectroscopy on 15 nm scale polymer nanostructures. <i>Review of Scientific Instruments</i> , 2013 , 84, 023709	1.7	34
230	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
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