

Sotirios Natsiavas

List of Publications by Citations

Source: <https://exaly.com/author-pdf/3606910/sotirios-natsiavas-publications-by-citations.pdf>

Version: 2024-04-26

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

76
papers

1,703
citations

22
h-index

40
g-index

82
ext. papers

1,949
ext. citations

3.4
avg, IF

5.02
L-index

#	Paper	IF	Citations
76	NON-LINEAR DYNAMICS OF GEAR-PAIR SYSTEMS WITH PERIODIC STIFFNESS AND BACKLASH. <i>Journal of Sound and Vibration</i> , 2000 , 229, 287-310	3.9	233
75	Design Optimization of Quarter-car Models with Passive and Semi-active Suspensions under Random Road Excitation. <i>JVC/Journal of Vibration and Control</i> , 2005 , 11, 581-606	2	154
74	Periodic response and stability of oscillators with symmetric trilinear restoring force. <i>Journal of Sound and Vibration</i> , 1989 , 134, 315-331	3.9	97
73	Periodic and chaotic dynamics of motor-driven gear-pair systems with backlash. <i>Chaos, Solitons and Fractals</i> , 2001 , 12, 2427-2440	9.3	79
72	Dynamics of Multiple-Degree-of-Freedom Oscillators With Colliding Components. <i>Journal of Sound and Vibration</i> , 1993 , 165, 439-453	3.9	76
71	Steady state oscillations and stability of non-linear dynamic vibration absorbers. <i>Journal of Sound and Vibration</i> , 1992 , 156, 227-245	3.9	73
70	STABILITY OF PIECEWISE LINEAR OSCILLATORS WITH VISCOUS AND DRY FRICTION DAMPING. <i>Journal of Sound and Vibration</i> , 1998 , 217, 507-522	3.9	67
69	On the dynamics of oscillators with bi-linear damping and stiffness. <i>International Journal of Non-Linear Mechanics</i> , 1990 , 25, 535-554	2.8	63
68	Dynamic analysis of piecewise linear oscillators with time periodic coefficients. <i>International Journal of Non-Linear Mechanics</i> , 2000 , 35, 53-68	2.8	52
67	Multi-objective optimization of quarter-car models with a passive or semi-active suspension system. <i>Vehicle System Dynamics</i> , 2007 , 45, 77-92	2.8	51
66	ON GEARED ROTORDYNAMIC SYSTEMS WITH OIL JOURNAL BEARINGS. <i>Journal of Sound and Vibration</i> , 2001 , 243, 721-745	3.9	51
65	Fault Detection and Optimal Sensor Location in Vehicle Suspensions. <i>JVC/Journal of Vibration and Control</i> , 2003 , 9, 337-359	2	45
64	Control and Dynamics of Quarter-Car Models With Dual-Rate Damping. <i>JVC/Journal of Vibration and Control</i> , 2000 , 6, 1045-1063	2	37
63	Stability and bifurcation analysis for oscillators with motion limiting constraints. <i>Journal of Sound and Vibration</i> , 1990 , 141, 97-102	3.9	36
62	Variability of updated finite element models and their predictions consistent with vibration measurements. <i>Structural Control and Health Monitoring</i> , 2012 , 19, 630-654	4.5	31
61	Linear and nonlinear dynamics of reciprocating engines. <i>International Journal of Non-Linear Mechanics</i> , 2003 , 38, 723-738	2.8	29
60	Vibration of a continuous system with clearance and motion constraints. <i>International Journal of Non-Linear Mechanics</i> , 2000 , 35, 675-690	2.8	29

59	Coupled Lateral-Torsional Vibration of a Gear-Pair System Supported by a Squeeze Film Damper. <i>Journal of Vibration and Acoustics, Transactions of the ASME, 1998</i> , 120, 860-867	1.6	29
58	Mode Localization and Frequency Veering in a Non-Conservative Mechanical System With Dissimilar Components. <i>Journal of Sound and Vibration, 1993</i> , 165, 137-147	3.9	28
57	Effect of non-linearities in the identification and fault detection of gear-pair systems. <i>International Journal of Non-Linear Mechanics, 2006</i> , 41, 213-230	2.8	26
56	Dynamics of Large Scale Mechanical Models Using Multilevel Substructuring. <i>Journal of Computational and Nonlinear Dynamics, 2007</i> , 2, 40-51	1.4	24
55	A set of ordinary differential equations of motion for constrained mechanical systems. <i>Nonlinear Dynamics, 2015</i> , 79, 1911-1938	5	22
54	Dynamics of finite element structural models with multiple unilateral constraints. <i>International Journal of Non-Linear Mechanics, 2009</i> , 44, 371-382	2.8	22
53	Nonlinear biodynamics of passengers coupled with quarter car models. <i>Journal of Sound and Vibration, 2007</i> , 304, 50-71	3.9	19
52	Dynamics of Oscillators with Strongly Nonlinear Asymmetric Damping. <i>Nonlinear Dynamics, 1999</i> , 20, 221-246	5	19
51	Ride Dynamics of Nonlinear Vehicle Models Using Component Mode Synthesis. <i>Journal of Vibration and Acoustics, Transactions of the ASME, 2002</i> , 124, 427-434	1.6	18
50	Dynamics of piecewise linear oscillators with van der Pol type damping. <i>International Journal of Non-Linear Mechanics, 1991</i> , 26, 349-366	2.8	18
49	On application of Newton's law to mechanical systems with motion constraints. <i>Nonlinear Dynamics, 2013</i> , 72, 455-475	5	17
48	ON VIBRATION ISOLATION OF MECHANICAL SYSTEMS WITH NON-LINEAR FOUNDATIONS. <i>Journal of Sound and Vibration, 1996</i> , 194, 173-185	3.9	17
47	Dynamic Response and Identification of Critical Points in the Superstructure of a Vehicle Using a Combination of Numerical and Experimental Methods. <i>Experimental Mechanics, 2015</i> , 55, 529-542	2.6	16
46	A new look into the kinematics and dynamics of finite rigid body rotations using Lie group theory. <i>International Journal of Solids and Structures, 2013</i> , 50, 57-72	3.1	16
45	Dynamics and stability of non-linear free vibration of thin rotating rings. <i>International Journal of Non-Linear Mechanics, 1994</i> , 29, 31-48	2.8	16
44	Stability Analysis and Complex Dynamics of a Gear-Pair System Supported by a Squeeze Film Damper. <i>Journal of Vibration and Acoustics, Transactions of the ASME, 1997</i> , 119, 85-88	1.6	14
43	Application of an augmented Lagrangian approach to multibody systems with equality motion constraints. <i>Nonlinear Dynamics, 2020</i> , 99, 753-776	5	13
42	Dynamics of mechanical systems involving impact and friction using an efficient contact detection algorithm. <i>International Journal of Non-Linear Mechanics, 2017</i> , 94, 309-322	2.8	12

41	On the dynamics of rings rotating with variable spin speed. <i>Nonlinear Dynamics</i> , 1995 , 7, 345-363	5	12
40	Weak formulation and first order form of the equations of motion for a class of constrained mechanical systems. <i>International Journal of Non-Linear Mechanics</i> , 2015 , 77, 208-222	2.8	10
39	Hybrid (numerical-experimental) modeling of complex structures with linear and nonlinear components. <i>Nonlinear Dynamics</i> , 2006 , 47, 193-217	5	10
38	Dynamics of Slider-Crank Mechanisms with Flexible Supports and Non-Ideal Forcing. <i>Nonlinear Dynamics</i> , 2004 , 35, 205-227	5	10
37	Non-linear parametric resonance of spinning rings. <i>Journal of Sound and Vibration</i> , 1995 , 184, 93-109	3.9	10
36	Regular and chaotic forced vibration of thin rotating rings. <i>International Journal of Non-Linear Mechanics</i> , 1998 , 33, 843-855	2.8	9
35	Bayesian Uncertainty Quantification and Propagation in Nonlinear Structural Dynamics. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2013 , 33-41	0.3	9
34	Optimal selection of suspension parameters in large scale vehicle models. <i>Vehicle System Dynamics</i> , 2009 , 47, 1147-1166	2.8	8
33	Parametric Identification and Health Monitoring of Complex Ground Vehicle Models. <i>JVC/Journal of Vibration and Control</i> , 2008 , 14, 1021-1036	2	8
32	Analytical Modeling of Discrete Mechanical Systems Involving Contact, Impact, and Friction. <i>Applied Mechanics Reviews</i> , 2019 , 71,	8.6	7
31	A geometric solution to the general single contact frictionless problem by combining concepts of analytical dynamics and b-calculus. <i>International Journal of Non-Linear Mechanics</i> , 2017 , 95, 117-131	2.8	5
30	On periodic steady state response and stability of Filippov-type mechanical models. <i>Nonlinear Dynamics</i> , 2011 , 66, 355-376	5	5
29	Periodic steady state response of large scale mechanical models with local nonlinearities. <i>International Journal of Solids and Structures</i> , 2009 , 46, 3565-3576	3.1	5
28	Modal interactions in self-excited oscillators under external primary resonance. <i>Journal of Sound and Vibration</i> , 1995 , 184, 261-280	3.9	5
27	Modelling and ride dynamics of a flexible multi-body model of an urban bus. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2008 , 222, 143-154	0.9	4
26	A model-based fatigue damage estimation framework of large-scale structural systems. <i>Structural Health Monitoring</i> , 2021 , 20, 834-847	4.4	4
25	An analytical dynamics approach for mechanical systems involving a single frictional contact using b-geometry. <i>International Journal of Solids and Structures</i> , 2018 , 148-149, 140-156	3.1	4
24	An augmented Lagrangian formulation for the equations of motion of multibody systems subject to equality constraints. <i>Procedia Engineering</i> , 2017 , 199, 747-752		3

23	Self-Excited Oscillators with Asymmetric Nonlinearities and One-to-Two Internal Resonance. <i>Nonlinear Dynamics</i> , 1998 , 17, 325-346	5	3
22	A novel return map in non-flat configuration spaces of multibody systems with impact. <i>International Journal of Solids and Structures</i> , 2020 , 202, 822-834	3.1	3
21	A Dynamic Partitioning Method to solve the vehicle-bridge interaction problem. <i>Computers and Structures</i> , 2021 , 251, 106547	4.5	3
20	A Boundary Layer Approach to Multibody Systems Involving Single Frictional Impacts. <i>Journal of Computational and Nonlinear Dynamics</i> , 2019 , 14,	1.4	3
19	Free Vibration in a Class of Self-Excited Oscillators with 1:3 Internal Resonance. <i>Nonlinear Dynamics</i> , 1997 , 12, 109-128	5	2
18	EXTERNAL PRIMARY RESONANCE OF SELF-EXCITED OSCILLATORS WITH 1:3 INTERNAL RESONANCE. <i>Journal of Sound and Vibration</i> , 1997 , 208, 211-224	3.9	2
17	FORCING INDUCED ASYMMETRY ON DYNAMICAL SYSTEMS WITH CUBIC NON-LINEARITIES. <i>Journal of Sound and Vibration</i> , 2000 , 233, 279-295	3.9	2
16	Application of Newton's law of motion to constrained mechanical systems possessing configuration manifolds with time-dependent geometric properties. <i>Nonlinear Dynamics</i> , 2016 , 85, 2583-2610	5	1
15	Dynamic Analysis and Identification of Critical Points in the Superstructure of a Vehicle Through FE Modeling and Mobility Tests 2013 ,		1
14	Stochastic dynamics and fatigue analysis of large-scale mechanical models using multilevel substructuring. <i>Proceedings of the Institution of Mechanical Engineers, Part K: Journal of Multi-body Dynamics</i> , 2012 , 226, 343-358	0.9	1
13	Dynamics of Nonlinear Oscillators under Simultaneous Internal and External Resonances. <i>Nonlinear Dynamics</i> , 1998 , 16, 23-39	5	1
12	Dynamics of Piecewise Linear Oscillators. <i>World Scientific Series on Nonlinear Science, Series A</i> , 2000 , 127-153	3.9	1
11	Modal interaction and bifurcations in two degree of freedom duffing oscillators. <i>Nonlinear Dynamics</i> , 1991 , 2, 405-417	5	1
10	A time-stepping method for multibody systems with frictional impacts based on a return map and boundary layer theory. <i>International Journal of Non-Linear Mechanics</i> , 2021 , 131, 103683	2.8	1
9	A time-stepping method for multibody systems involving frictional impacts and phases with persistent contact. <i>Mechanism and Machine Theory</i> , 2022 , 169, 104591	4	0
8	Numerical integration of multibody dynamic systems involving nonholonomic equality constraints. <i>Nonlinear Dynamics</i> , 2021 , 105, 1191-1211	5	0
7	A new set of equations of motion for constrained structures and a comparison of the effect of bilateral and unilateral constraints. <i>Procedia Engineering</i> , 2017 , 199, 218-223		
6	On the Seismic Behavior of Unanchored Liquid Containers. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 1996 , 118, 257-264	1.2	

- 5 Special Issue of the Journal of Vibration and Control in honor of Professor Fabrizio Vestroni:
Preface. *JVC/Journal of Vibration and Control*, **2008**, 14, 3-5 2
- 4 Boundary Layer Dynamics of Multibody Systems Involving Impact and Friction **2020**, 97-106
- 3 Nonlinear Dynamics of Multibody Systems Using an Augmented Lagrangian Formulation **2020**, 3-11
- 2 Nonlinear Ground/Structure Interaction and Buckling of a Liquid-Filled Tank Under Ground
Excitation. *Studies in Applied Mechanics*, **1988**, 19, 267-284
- 1 A Novel Time-Stepping Method for Multibody Systems with Frictional Impacts **2022**, 501-511