

Anil K Bajaj

List of Publications by Year in descending order

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papers

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304602

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76
all docs

76
docs citations

76
times ranked

774
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-linear dynamics of a shallow arch under periodic excitation at 1:1:2 internal resonance. International Journal of Non-Linear Mechanics, 1994, 29, 349-366.	1.4	88
2	Hopf Bifurcation Phenomena in Tubes Carrying a Fluid. SIAM Journal on Applied Mathematics, 1980, 39, 213-230.	0.8	87
3	Amplitude modulated dynamics of a resonantly excited autoparametric two degree-of-freedom system. Nonlinear Dynamics, 1994, 5, 433-457.	2.7	86
4	Non-Linear vibrations and chaos in harmonically excited rectangular plates with one-to-one internal resonance. Nonlinear Dynamics, 1993, 4, 433-460.	2.7	82
5	Title is missing!. Nonlinear Dynamics, 2000, 22, 281-313.	2.7	82
6	Nonlinear aerodynamic damping of sharp-edged flexible beams oscillating at low Keulegan-Carpenter numbers. Journal of Fluid Mechanics, 2009, 634, 269.	1.4	80
7	Modeling of automotive drum brakes for squeal and parameter sensitivity analysis. Journal of Sound and Vibration, 2006, 289, 245-263.	2.1	79
8	A Microresonator Design Based on Nonlinear 1:2 Internal Resonance in Flexural Structural Modes. Journal of Microelectromechanical Systems, 2009, 18, 744-762.	1.7	75
9	Flow Induced Bifurcations to Three-Dimensional Oscillatory Motions in Continuous Tubes. SIAM Journal on Applied Mathematics, 1984, 44, 270-286.	0.8	71
10	Period-Doubling Bifurcations and Modulated Motions in Forced Mechanical Systems. Journal of Applied Mechanics, Transactions ASME, 1985, 52, 446-452.	1.1	52
11	Dynamics of a nonlinear microresonator based on resonantly interacting flexural-torsional modes. Nonlinear Dynamics, 2008, 54, 31-52.	2.7	50
12	Identification of Nonlinear and Viscoelastic Properties of Flexible Polyurethane Foam. Nonlinear Dynamics, 2003, 34, 319-346.	2.7	41
13	Resonant dynamics of an autoparametric system: A study using higher-order averaging. International Journal of Non-Linear Mechanics, 1996, 31, 21-39.	1.4	40
14	Whole-body Vibratory Response Study Using a Nonlinear Multi-body Model of Seat-occupant System with Viscoelastic Flexible Polyurethane Foam. Industrial Health, 2010, 48, 663-674.	0.4	39
15	Nonlinear Normal Modes and Their Bifurcations for an Inertially Coupled Nonlinear Conservative System. Nonlinear Dynamics, 2005, 42, 233-265.	2.7	37
16	Bifurcations in Three-Dimensional Motions of Articulated Tubes, Part 1: Linear Systems and Symmetry. Journal of Applied Mechanics, Transactions ASME, 1982, 49, 606-611.	1.1	32
17	A Case Study on the Use of Fractional Derivatives: The Low-Frequency Viscoelastic Uni-Directional Behavior of Polyurethane Foam. Nonlinear Dynamics, 2004, 38, 247-265.	2.7	30
18	Nonlinear dynamics of a three-beam structure with attached mass and three-mode interactions. Nonlinear Dynamics, 2010, 62, 461-484.	2.7	28

#	ARTICLE	IF	CITATIONS
19	Topology optimization and internal resonances in transverse vibrations of hyperelastic plates. <i>International Journal of Solids and Structures</i> , 2016, 81, 311-328.	1.3	27
20	An Efficient Approach to Estimate Critical Value of Friction Coefficient in Brake Squeal Analysis. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2007, 74, 534-541.	1.1	26
21	Bifurcations in Three-Dimensional Motions of Articulated Tubes, Part 2: Nonlinear Analysis. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1982, 49, 612-618.	1.1	25
22	An efficient solution methodology to study the response of a beam on viscoelastic and nonlinear unilateral foundation: Static response. <i>International Journal of Solids and Structures</i> , 2013, 50, 2328-2339.	1.3	24
23	Periodic response predictions of beams on nonlinear and viscoelastic unilateral foundations using incremental harmonic balance method. <i>International Journal of Solids and Structures</i> , 2016, 99, 28-39.	1.3	22
24	Bifurcating Periodic Solutions in Rotationally Symmetric Systems. <i>SIAM Journal on Applied Mathematics</i> , 1982, 42, 1078-1098.	0.8	21
25	Nonlinear normal modes in multi-mode models of an inertially coupled elastic structure. <i>Nonlinear Dynamics</i> , 2006, 47, 25-47.	2.7	20
26	Amplitude modulated chaos in two degree-of-freedom systems with quadratic nonlinearities. <i>Acta Mechanica</i> , 1997, 124, 131-154.	1.1	19
27	Computational Synthesis for Nonlinear Dynamics Based Design of Planar Resonant Structures. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2013, 135, .	1.0	16
28	Design for 1:2 Internal Resonances in In-Plane Vibrations of Plates With Hyperelastic Materials. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2014, 136, .	1.0	16
29	Amplitude modulated dynamics and bifurcations in the resonant response of a structure with cyclic symmetry. <i>Acta Mechanica</i> , 1995, 109, 101-125.	1.1	14
30	Global dynamics of an autoparametric spring-mass-pendulum system. <i>Nonlinear Dynamics</i> , 2007, 49, 105-116.	2.7	14
31	Discrimination of adhesion and viscoelasticity from nanoscale maps of polymer surfaces using bimodal atomic force microscopy. <i>Nanoscale</i> , 2021, 13, 17428-17441.	2.8	14
32	Interactions Between Self and Parametrically Excited Motions in Articulated Tubes. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1984, 51, 423-429.	1.1	12
33	Nonlinear Response of Flexible Robotic Manipulators Performing Repetitive Tasks. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 1989, 111, 470-479.	0.9	12
34	A Preliminary Investigation of the Dynamic Stability of Flexible Manipulators Performing Repetitive Tasks. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 1986, 108, 206-214.	0.9	11
35	Synthesis of Harmonic Motion Generating Linkages—Part I: Function Generation. <i>Journal of Mechanisms, Transmissions, and Automation in Design</i> , 1988, 110, 16-21.	0.2	11
36	Dynamics of nonlinear structures with multiple equilibria: A singular perturbation-invariant manifold approach. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 1999, 50, 892.	0.7	11

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37	Uncertainty quantification analysis of the dynamics of an electrostatically actuated microelectromechanical switch model. <i>Journal of Sound and Vibration</i> , 2015, 349, 375-388.	2.1	11
38	On the Stability of a Flexible Vehicle Controlled by a Human Pilot. <i>Vehicle System Dynamics</i> , 1988, 17, 37-56.	2.2	9
39	Non-resonant and resonant chaotic dynamics in externally excited cyclic systems. <i>Acta Mechanica</i> , 2001, 150, 139-160.	1.1	9
40	Static and Dynamic Response of Beams on Nonlinear Viscoelastic Unilateral Foundations: A Multimode Approach. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2014, 136, .	1.0	9
41	In memory of Professor Ali H. Nayfeh. <i>Nonlinear Dynamics</i> , 2020, 99, 1-9.	2.7	9
42	Nonlinear nonplanar dynamics of a parametrically excited inextensional elastic beam. <i>Nonlinear Dynamics</i> , 1991, 2, 263-289.	2.7	8
43	Dynamics of structures with wideband autoparametric vibration absorbers: experiment. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2004, 460, 1857-1880.	1.0	8
44	Prediction and verification of the periodic response of a single-degree-of-freedom foam-mass system by using incremental harmonic balance. <i>Nonlinear Dynamics</i> , 2015, 82, 1933-1951.	2.7	8
45	Bifurcations in the dynamics of an orthogonal double pendulum. <i>Nonlinear Dynamics</i> , 1993, 4, 605-633.	2.7	7
46	Identification of Nonlinear Viscoelastic Models of Flexible Polyurethane Foam From Uniaxial Compression Data. , 2012, , .		7
47	Numerical Simulations of Flutter Instability of a Flexible Disk Rotating Close to a Rigid Wall. <i>JVC/Journal of Vibration and Control</i> , 2003, 9, 95-118.	1.5	7
48	Evaluation of Parametric Vibration and Stability of Flexible Cam-Follower Systems. <i>Journal of Mechanical Design, Transactions of the ASME</i> , 1994, 116, 291-297.	1.7	6
49	On experiments in harmonically excited cantilever plates with 1:2 internal resonance. <i>Nonlinear Dynamics</i> , 2020, 100, 15-32.	2.7	6
50	Uncertainty quantification in a resonant nonlinear MEMS structure. <i>International Journal of Non-Linear Mechanics</i> , 2018, 101, 131-145.	1.4	5
51	On the Method of Averaging, Integral Manifolds and Systems with Symmetry. <i>SIAM Journal on Applied Mathematics</i> , 1985, 45, 343-359.	0.8	4
52	An efficient approach to estimate critical value of friction coefficient and sensitivity analysis for brake squeal. <i>International Journal of Vehicle Design</i> , 2009, 51, 21.	0.1	4
53	On the Formal Equivalence of Normal Form Theory and the Method of Multiple Time Scales. <i>Journal of Computational and Nonlinear Dynamics</i> , 2009, 4, .	0.7	4
54	Comprehensive Reduced-Order Models of Electrostatically Actuated MEMS Switches and Their Dynamics Including Impact and Bounce. , 2010, , .		4

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55	Nonlinear Response of a Dynamic System due to Oscillatory Flow. Journal of Offshore Mechanics and Arctic Engineering, 1987, 109, 345-356.	0.6	4
56	Non-Stationary Responses in Externally Excited Two-Degrees-of-Freedom Nonlinear Systems with 1: 2 Internal Resonance. JVC/Journal of Vibration and Control, 2004, 10, 1663-1697.	1.5	3
57	Microresonators Based on 1:2 Internal Resonance. , 2005, , 529.		3
58	Adomian Decomposition Method Applied to Nonlinear Normal Modes of an Inertially Coupled Conservative System. JVC/Journal of Vibration and Control, 2008, 14, 107-134.	1.5	3
59	Model reduction for discrete and elastic structures with inertial quadratic non-linearities. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2011, 225, 2422-2435.	1.1	3
60	Residual Stress Extraction of Surface-Micromachined Fixed-Fixed Nickel Beams Using a Wafer-Scale Technique. Journal of Microelectromechanical Systems, 2015, 24, 1803-1816.	1.7	3
61	Nonlinear Resonator With Interacting Flexural-Torsional Modes for Mass Sensing. , 2007, , 967.		2
62	Evaluation of audiovestibular status in leprosy. Indian Journal of Leprosy, 1984, 56, 24-9.	0.0	2
63	ROBUST CONTROL OF A CHAOTIC VIBRATORY SYSTEM. International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, 1993, 03, 1075-1081.	0.7	1
64	On Regularization in Design for Reliability for Nonlinear Planar Beam-Type Resonators. Journal of Vibration and Acoustics, Transactions of the ASME, 2017, 139, .	1.0	1
65	Cantilever signature of tip detachment during contact resonance AFM. Beilstein Journal of Nanotechnology, 2021, 12, 1286-1296.	1.5	1
66	Antispermatozoal antibodies in leprosy with special reference to their morphological patterns. Indian Journal of Leprosy, 1986, 58, 196-201.	0.0	1
67	Audio-vestibular study in leprosy. Indian Journal of Otolaryngology, 1981, 33, 131-134.	0.1	0
68	Non-linear oscillations. Mechanism and Machine Theory, 1985, 20, 243.	2.7	0
69	Modeling the Contact Stiffness Between a 2D Voronoi Honeycomb and a Flat Rigid Surface. Materials Research Society Symposia Proceedings, 2003, 791, 5201.	0.1	0
70	Computational Synthesis for Nonlinear Dynamics Based Design of Planar Resonant Structures. , 2012, , .		0
71	Design for Internal Resonances in Nonlinear Transverse Vibrations of Hyperelastic Plates. , 2013, , .		0
72	Design for 1:2 Internal Resonances in In-Plane Vibrations of Plates With Hyperelastic Materials. , 2013, , .		0

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73	Effect of Axial Load on the Response of Beams on Nonlinear Viscoelastic Unilateral Foundations. , 2014, , .		0
74	Analysis of Parametric Resonances in In-Plane Vibrations of Electrostrictive Hyperelastic Plates. Journal of Computational and Nonlinear Dynamics, 2018, 13, .	0.7	0
75	Nonlinear Resonances in 3D Printed Structures. , 0, , .		0
76	Familial Biphasic Cutaneous Amyloidosis. Indian Journal of Dermatology, Venereology and Leprology, 1987, 53, 124-126.	0.2	0