

Anil K Bajaj

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.

66
papers

1,245
citations

20
h-index

33
g-index

76
ext. papers

1,409
ext. citations

3
avg, IF

4.23
L-index

#	Paper	IF	Citations
66	Cantilever signature of tip detachment during contact resonance AFM.. <i>Beilstein Journal of Nanotechnology</i> , 2021 , 12, 1286-1296	3	
65	Discrimination of adhesion and viscoelasticity from nanoscale maps of polymer surfaces using bimodal atomic force microscopy. <i>Nanoscale</i> , 2021 , 13, 17428-17441	7.7	2
64	On experiments in harmonically excited cantilever plates with 1:2 internal resonance. <i>Nonlinear Dynamics</i> , 2020 , 100, 15-32	5	2
63	In memory of Professor Ali H. Nayfeh. <i>Nonlinear Dynamics</i> , 2020 , 99, 1-9	5	7
62	Uncertainty quantification in a resonant nonlinear MEMS structure. <i>International Journal of Non-Linear Mechanics</i> , 2018 , 101, 131-145	2.8	1
61	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	3.1	17
60	Topology optimization and internal resonances in transverse vibrations of hyperelastic plates. <i>International Journal of Solids and Structures</i> , 2016 , 81, 311-328	3.1	12
59	Uncertainty quantification analysis of the dynamics of an electrostatically actuated microelectromechanical switch model. <i>Journal of Sound and Vibration</i> , 2015 , 349, 375-388	3.9	10
58	. <i>Journal of Microelectromechanical Systems</i> , 2015 , 24, 1803-1816	2.5	3
57	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	5	8
56	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,	1.6	9
55	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,	1.6	8
54	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 ^{3,1}		17
53	Computational Synthesis for Nonlinear Dynamics Based Design of Planar Resonant Structures. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2013 , 135,	1.6	14
52	Identification of Nonlinear Viscoelastic Models of Flexible Polyurethane Foam From Uniaxial Compression Data 2012 ,		7
51	Model reduction for discrete and elastic structures with inertial quadratic non-linearities. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2011 , 225, 2422-2435	1.3	3
50	Comprehensive Reduced-Order Models of Electrostatically Actuated MEMS Switches and Their Dynamics Including Impact and Bounce 2010 ,		4

49	Whole-body vibratory response study using a nonlinear multi-body model of seat-occupant system with viscoelastic flexible polyurethane foam. <i>Industrial Health</i> , 2010 , 48, 663-74	2.5	33
48	Nonlinear dynamics of a three-beam structure with attached mass and three-mode interactions. <i>Nonlinear Dynamics</i> , 2010 , 62, 461-484	5	21
47	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	2.4	4
46	Nonlinear aerodynamic damping of sharp-edged flexible beams oscillating at low Keulegan-Carpenter numbers. <i>Journal of Fluid Mechanics</i> , 2009 , 634, 269	3.7	66
45	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,	1.4	4
44	A Microresonator Design Based on Nonlinear 1 : 2 Internal Resonance in Flexural Structural Modes. <i>Journal of Microelectromechanical Systems</i> , 2009 , 18, 744-762	2.5	55
43	Adomian Decomposition Method Applied to Nonlinear Normal Modes of an Inertially Coupled Conservative System. <i>JVC/Journal of Vibration and Control</i> , 2008 , 14, 107-134	2	2
42	Dynamics of a nonlinear microresonator based on resonantly interacting flexural-torsional modes. <i>Nonlinear Dynamics</i> , 2008 , 54, 31-52	5	40
41	Global dynamics of an autoparametric spring-mass-pendulum system. <i>Nonlinear Dynamics</i> , 2007 , 49, 105-116	5	11
40	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	2.7	22
39	Nonlinear Resonator With Interacting Flexural-Torsional Modes for Mass Sensing 2007 , 967		2
38	Modeling of automotive drum brakes for squeal and parameter sensitivity analysis. <i>Journal of Sound and Vibration</i> , 2006 , 289, 245-263	3.9	62
37	Nonlinear normal modes in multi-mode models of an inertially coupled elastic structure. <i>Nonlinear Dynamics</i> , 2006 , 47, 25-47	5	17
36	Microresonators Based on 1:2 Internal Resonance 2005 , 529		3
35	Nonlinear Normal Modes and Their Bifurcations for an Inertially Coupled Nonlinear Conservative System. <i>Nonlinear Dynamics</i> , 2005 , 42, 233-265	5	27
34	Non-Stationary Responses in Externally Excited Two-Degrees-of-Freedom Nonlinear Systems with 1: 2 Internal Resonance. <i>JVC/Journal of Vibration and Control</i> , 2004 , 10, 1663-1697	2	3
33	A Case Study on the Use of Fractional Derivatives: The Low-Frequency Viscoelastic Uni-Directional Behavior of Polyurethane Foam. <i>Nonlinear Dynamics</i> , 2004 , 38, 247-265	5	26
32	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	2.4	8

31	Identification of Nonlinear and Viscoelastic Properties of Flexible Polyurethane Foam. <i>Nonlinear Dynamics</i> , 2003 , 34, 319-346	5	34
30	Modeling the Contact Stiffness Between a 2D Voronoi Honeycomb and a Flat Rigid Surface. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 791, 5201		
29	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	2	6
28	Non-resonant and resonant chaotic dynamics in externally excited cyclic systems. <i>Acta Mechanica</i> , 2001 , 150, 139-160	2.1	9
27	Experimental Techniques and Identification of Nonlinear and Viscoelastic Properties of Flexible Polyurethane Foam. <i>Nonlinear Dynamics</i> , 2000 , 22, 281-313	5	70
26	Dynamics of nonlinear structures with multiple equilibria: A singular perturbation-invariant manifold approach. <i>Zeitschrift Fur Angewandte Mathematik Und Physik</i> , 1999 , 50, 892	1.6	9
25	Amplitude modulated chaos in two degree-of-freedom systems with quadratic nonlinearities. <i>Acta Mechanica</i> , 1997 , 124, 131-154	2.1	19
24	Resonant dynamics of an autoparametric system: A study using higher-order averaging. <i>International Journal of Non-Linear Mechanics</i> , 1996 , 31, 21-39	2.8	36
23	Amplitude modulated dynamics and bifurcations in the resonant response of a structure with cyclic symmetry. <i>Acta Mechanica</i> , 1995 , 109, 101-125	2.1	13
22	Amplitude modulated dynamics of a resonantly excited autoparametric two degree-of-freedom system. <i>Nonlinear Dynamics</i> , 1994 , 5, 433-457	5	71
21	Non-linear dynamics of a shallow arch under periodic excitation Ω :1:2 internal resonance. <i>International Journal of Non-Linear Mechanics</i> , 1994 , 29, 349-366	2.8	77
20	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	3	5
19	ROBUST CONTROL OF A CHAOTIC VIBRATORY SYSTEM. <i>International Journal of Bifurcation and Chaos in Applied Sciences and Engineering</i> , 1993 , 03, 1075-1081	2	0
18	Bifurcations in the dynamics of an orthogonal double pendulum. <i>Nonlinear Dynamics</i> , 1993 , 4, 605-633	5	5
17	Non-Linear vibrations and chaos in harmonically excited rectangular plates with one-to-one internal resonance. <i>Nonlinear Dynamics</i> , 1993 , 4, 433-460	5	68
16	Nonlinear nonplanar dynamics of a parametrically excited inextensional elastic beam. <i>Nonlinear Dynamics</i> , 1991 , 2, 263-289	5	5
15	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	1.6	11
14	On the Stability of a Flexible Vehicle Controlled by a Human Pilot. <i>Vehicle System Dynamics</i> , 1988 , 17, 37-56	2.8	9

13	Synthesis of Harmonic Motion Generating Linkages Part I: Function Generation. <i>Journal of Mechanisms, Transmissions, and Automation in Design</i> , 1988 , 110, 16-21		10
12	Nonlinear Response of a Dynamic System due to Oscillatory Flow. <i>Journal of Offshore Mechanics and Arctic Engineering</i> , 1987 , 109, 345-356	1.5	4
11	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	1.6	7
10	Non-linear oscillations. <i>Mechanism and Machine Theory</i> , 1985 , 20, 243	4	
9	Period-Doubling Bifurcations and Modulated Motions in Forced Mechanical Systems. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1985 , 52, 446-452	2.7	43
8	On the Method of Averaging, Integral Manifolds and Systems with Symmetry. <i>SIAM Journal on Applied Mathematics</i> , 1985 , 45, 343-359	1.8	4
7	Flow Induced Bifurcations to Three-Dimensional Oscillatory Motions in Continuous Tubes. <i>SIAM Journal on Applied Mathematics</i> , 1984 , 44, 270-286	1.8	56
6	Interactions Between Self and Parametrically Excited Motions in Articulated Tubes. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1984 , 51, 423-429	2.7	9
5	Bifurcations in Three-Dimensional Motions of Articulated Tubes, Part 2: Nonlinear Analysis. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1982 , 49, 612-618	2.7	21
4	Bifurcations in Three-Dimensional Motions of Articulated Tubes, Part 1: Linear Systems and Symmetry. <i>Journal of Applied Mechanics, Transactions ASME</i> , 1982 , 49, 606-611	2.7	26
3	Bifurcating Periodic Solutions in Rotationally Symmetric Systems. <i>SIAM Journal on Applied Mathematics</i> , 1982 , 42, 1078-1098	1.8	16
2	Audio-vestibular study in leprosy. <i>Indian Journal of Otolaryngology</i> , 1981 , 33, 131-134		
1	Hopf Bifurcation Phenomena in Tubes Carrying a Fluid. <i>SIAM Journal on Applied Mathematics</i> , 1980 , 39, 213-230	1.8	70