Anindya Chatterjee

List of Publications by Year
in descending order

79 papers	2,513 citations	394421 19 h-index	206112 48 g-index
80 all docs	80 docs citations	80 times ranked	1363 citing authors

#	Article	IF	Citations
1	The Simplest Walking Model: Stability, Complexity, and Scaling. Journal of Biomechanical Engineering, 1998, 120, 281-288.	1.3	900
2	Asymptotic solution for solitary waves in a chain of elastic spheres. Physical Review E, 1999, 59, 5912-5919.	2.1	170
3	Efficiency, speed, and scaling of two-dimensional passive-dynamic walking. Dynamical Systems, 2000, 15, 75-99.	0.7	143
4	Motions of a rimless spoked wheel: a simple three-dimensional system with impacts. Dynamical Systems, 1997, 12, 139-159.	0.7	140
5	A Dynamical Systems Approach to Damage Evolution Tracking, Part 1: Description and Experimental Application. Journal of Vibration and Acoustics, Transactions of the ASME, 2002, 124, 250-257.	1.6	90
6	Self-interrupted regenerative metal cutting in turning. International Journal of Non-Linear Mechanics, 2008, 43, 111-123.	2.6	82
7	Averaging Oscillations with Small Fractional Damping and Delayed Terms. Nonlinear Dynamics, 2004, 38, 3-22.	5.2	77
8	Cantilever beam electrostatic MEMS actuators beyond pull-in. Journal of Micromechanics and Microengineering, 2006, 16, 1800-1810.	2.6	70
9	A Dynamical Systems Approach to Damage Evolution Tracking, Part 2: Model-Based Validation and Physical Interpretation. Journal of Vibration and Acoustics, Transactions of the ASME, 2002, 124, 258-264.	1.6	67
10	Statistical origins of fractional derivatives in viscoelasticity. Journal of Sound and Vibration, 2005, 284, 1239-1245.	3.9	64
11	Regenerative Tool Chatter Near a Codimension 2 Hopf Point Using Multiple Scales. Nonlinear Dynamics, 2005, 40, 323-338.	5.2	54
12	Galerkin Projections for Delay Differential Equations. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2005, 127, 80-87.	1.6	47
13	Galerkin Projections and Finite Elements for Fractional Order Derivatives. Nonlinear Dynamics, 2006, 45, 183-206.	5.2	42
14	Small slope implies low speed for McGeer's passive walking machines. Dynamical Systems, 2000, 15, 139-157.	0.7	33
15	Hands-free circular motions of a benchmark bicycle. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2007, 463, 1983-2003.	2.1	30
16	Optimum energy extraction from rotational motion in a parametrically excited pendulum. Mechanics Research Communications, 2012, 43, 7-14.	1.8	30
17	On the Realism of Complementarity Conditions in Rigid Body Collisions. Nonlinear Dynamics, 1999, 20, 159-168.	5.2	29
18	Approximate Asymptotics for a Nonlinear Mathieu Equation Using Harmonic Balance Based Averaging. Nonlinear Dynamics, 2003, 31, 347-365.	5.2	28

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19	New approximations, and policy implications, from a delayed dynamic model of a fast pandemic. Physica D: Nonlinear Phenomena, 2020, 414, 132701.	2.8	27
20	Resonance, Parameter Estimation, and Modal Interactions in a Strongly Nonlinear Benchtop Oscillator. Nonlinear Dynamics, 2005, 40, 149-167.	5.2	20
21	Geometry optimization of axially symmetric ion traps. International Journal of Mass Spectrometry, 2007, 264, 38-52.	1.5	19
22	Escape velocity and resonant ion dynamics in Paul trap mass spectrometers. International Journal of Mass Spectrometry, 2004, 231, 1-16.	1.5	17
23	Motional coherence during resonance ejection of ions from Paul traps. International Journal of Mass Spectrometry, 2007, 261, 159-169.	1.5	17
24	Asymmetric Mathieu equations. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2006, 462, 1643-1659.	2.1	14
25	Multiple scales analysis of early and delayed boundary ejection in Paul traps. International Journal of Mass Spectrometry, 2007, 261, 170-182.	1.5	11
26	Vibrations of a Beam in Variable Contact With a Flat Surface. Journal of Vibration and Acoustics, Transactions of the ASME, 2009, 131, .	1.6	11
27	Transverse impact of a Hertzian body with an infinitely long Euler-Bernoulli beam. Journal of Sound and Vibration, 2018, 429, 147-161.	3.9	11
28	Asymptotics for the Characteristic Roots of Delayed Dynamic Systems. Journal of Applied Mechanics, Transactions ASME, 2005, 72, 475-483.	2.2	10
29	Anomalous Frictional Behavior in Collisions of Thin Disks Revisited. Journal of Applied Mechanics, Transactions ASME, 2008, 75, .	2.2	10
30	A two-state hysteresis model for bolted joints, with minor loops from partial unloading. International Journal of Mechanical Sciences, 2018, 140, 506-520.	6.7	10
31	Vibrations of an Euler-Bernoulli beam with hysteretic damping arising from dispersed frictional microcracks. Journal of Sound and Vibration, 2018, 412, 287-308.	3.9	10
32	Overhead water tank shapes with depth-independent sloshing frequencies for use as TLDs in buildings. Structural Control and Health Monitoring, 2018, 25, e2049.	4.0	10
33	Dissipation in the Boucâ€“Wen model: Small amplitude, large amplitude and two-frequency forcing. Journal of Sound and Vibration, 2013, 332, 1807-1819.	3.9	9
34	A reduced-order model from high-dimensional frictional hysteresis. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2014, 470, 20130817.	2.1	9
35	Complete dimensional collapse in the continuum limit of a delayed SEIQR network model with separable distributed infectivity. Nonlinear Dynamics, 2020, 101, 1653-1665.	5.2	9
36	Galerkin Projections for Delay Differential Equations. , 2003, , 2211.		8

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37	Infinite dimensional slow modulations in a well known delayed model for cutting tool vibrations. Nonlinear Dynamics, 2010, 62, 705-716.	5.2	8
38	Beyond fractional derivatives: local approximation of other convolution integrals. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 563-581.	2.1	8
39	Decoupled three-dimensional finite element computation ofÂthermoelastic damping using Zenerâ€™s approximation. Meccanica, 2011, 46, 371-381.	2.0	8
40	Scalar generalization of Newtonian restitution for simultaneous impact. International Journal of Mechanical Sciences, 2015, 103, 141-157.	6.7	8
41	Hysteretic damping in an elastic body with frictional microcracks. International Journal of Mechanical Sciences, 2016, 108-109, 61-71.	6.7	8
42	ADAMS model validation for an all-terrain vehicle using test track data. Advances in Mechanical Engineering, 2019, 11, 168781401985978.	1.6	8
43	Asymptotic Parameter Estimation via Implicit Averaging on a Nonlinear Extended System. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2003, 125, 11-18.	1.6	7
44	Higher-Order Pseudoaveraging via Harmonic Balance for Strongly Nonlinear Oscillations. Journal of Vibration and Acoustics, Transactions of the ASME, 2005, 127, 416-419.	1.6	7
45	Modal projections for synchronous rotor whirl. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2008, 464, 1739-1760.	2.1	7
46	Continuation of limit cycles near saddle homoclinic points using splines in phase space. Nonlinear Dynamics, 2009, 57, 383-399.	5.2	7
47	Numerical Stability Analysis of Linear Incommensurate Fractional Order Systems. Journal of Computational and Nonlinear Dynamics, 2013, 8, .	1.2	7
48	A generalized quarter car modelling approach with frame flexibility and other nonlocal effects. Sadhana - Academy Proceedings in Engineering Sciences, 2017, 42, 1175-1192.	1.3	7
49	The Short-Time Impulse Response of Euler-Bernoulli Beams. Journal of Applied Mechanics, Transactions ASME, 2004, 71, 208-218.	2.2	6
50	The Simplest Resonance Capture Problem, Using Harmonic Balance Based Averaging. Nonlinear Dynamics, 2004, 37, 271-284.	5.2	6
51	Common underlying steering curves for motorcycles in steady turns. Vehicle System Dynamics, 2011, 49, 931-948.	3.7	6
52	Modal damping in vibrating objects via dissipation from dispersed frictional microcracks. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2013, 469, 20120685.	2.1	6
53	A two-state hysteresis model from high-dimensional friction. Royal Society Open Science, 2015, 2, 150188.	2.4	6
54	Restitution modeling in vibration-dominated impacts using energy minimization under outward constraints. International Journal of Mechanical Sciences, 2020, 166, 105215.	6.7	6

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55	Nonintrusive Measurement of Contact Forces During Vibration Dominated Impacts. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2004, 126, 489-497.	1.6	5
56	An internal damping formula derived from dispersed elasto-plastic flaws with Weibull-distributed strengths. International Journal of Mechanical Sciences, 2014, 87, 137-149.	6.7	5
57	Performance limit for base-excited energy harvesting, and comparison with experiments. Nonlinear Dynamics, 2021, 103, 197-214.	5.2	5
58	Analytical Investigation of Hydrodynamic Cavitation Control by Ultrasonics. Nonlinear Dynamics, 2006, 46, 179-194.	5.2	4
59	Nonlinear secondary whirl of an overhung rotor. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 283-301.	2.1	3
60	Unified Galerkin- and DAE-Based Approximation of Fractional Order Systems. Journal of Computational and Nonlinear Dynamics, 2011, 6, .	1.2	3
61	Planar oscillations of a boat in a tank. International Journal of Mechanical Sciences, 2014, 79, 152-161.	6.7	3
62	Computational prediction of modal damping ratios in thin-walled structures. Journal of Sound and Vibration, 2014, 333, 7125-7134.	3.9	3
63	Stability aspects of the Hayes delay differential equation with scalable hysteresis. Nonlinear Dynamics, 2018, 93, 1377-1393.	5.2	3
64	Acoustics of IdakkÄ: An Indian snare drum with definite pitch. Journal of the Acoustical Society of America, 2018, 143, 3184-3194.	1.1	3
65	Data suggest COVID-19 affected numbers greatly exceeded detected numbers, in four European countries, as per a delayed SEIQR model. Scientific Reports, 2021, 11, 8106.	3.3	3
66	Towards design of a nonlinear vibration stabilizer for suppressing single-mode instability. Nonlinear Dynamics, 2021, 103, 1563-1583.	5.2	3
67	Fractional Damping: Stochastic Origin and Finite Approximations. , 2007, , 389-402.		3
68	Interplay Between Dissipation and Modal Truncation in Ball-Beam Impact. Journal of Computational and Nonlinear Dynamics, 2017, 12, .	1.2	2
69	Unifying averaged dynamics of the Fokker-Planck equation for Paul traps. Physics of Plasmas, 2019, 26, 012302.	1.9	2
70	Nonlinear responses of an SDOF structure with a light, whirling, driven, untuned pendulum. International Journal of Mechanical Sciences, 2020, 168, 105305.	6.7	2
71	DAE-based solution of nonlinear multiterm fractional integrodifferential equations. Journal Europeen Des Systemes Automatises, 2008, 42, 677-688.	0.4	2
72	Mathematics in engineeringâ€"Part II. Resonance, 2005, 10, 39-53.	0.3	1

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73	Infinite Dimensional Slow Modulations in a Delayed Model for Orthogonal Cutting Vibrations. , 2008, , .		1
74	Simple Recipe for Accurate Solution of Fractional Order Equations. Journal of Computational and Nonlinear Dynamics, 2013, 8, .	1.2	1
75	Unexpectedly low angular extent of journal bearing pressures: experiment and theory. Zeitschrift Fur Angewandte Mathematik Und Physik, 2015, 66, 455-471.	1.4	1
76	Rationally Derived Three-Parameter Models for Elastomeric Suspension Bushings: Theory and Experiment. Journal of Testing and Evaluation, 2019, 47, 1271-1294.	0.7	1
77	A Combinatorial Optimization Problem for High Order PODs with Few Sensors. Journal of Vibration and Acoustics, Transactions of the ASME, 2007, 129, 252-255.	1.6	0
78	An engineering-design oriented exploration of human excellence in throwing. Sadhana - Academy Proceedings in Engineering Sciences, 2018, 43, 1.	1.3	0
79	A Linear S-N Curve with Load Dependent Variance and Explicit Failure Probability. Journal of Testing and Evaluation, 2012, 40, 557-564.	0.7	0