

# Anindya Chatterjee

## List of Publications by Year in descending order

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79  
papers

2,513  
citations

393982

19  
h-index

205818

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. <i>Journal of Biomechanical Engineering</i> , 1998, 120, 281-288.	0.6	900
2	Asymptotic solution for solitary waves in a chain of elastic spheres. <i>Physical Review E</i> , 1999, 59, 5912-5919.	0.8	170
3	Efficiency, speed, and scaling of two-dimensional passive-dynamic walking. <i>Dynamical Systems</i> , 2000, 15, 75-99.	0.7	143
4	Motions of a rimless spoked wheel: a simple three-dimensional system with impacts. <i>Dynamical Systems</i> , 1997, 12, 139-159.	0.7	140
5	A Dynamical Systems Approach to Damage Evolution Tracking, Part 1: Description and Experimental Application. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2002, 124, 250-257.	1.0	90
6	Self-interrupted regenerative metal cutting in turning. <i>International Journal of Non-Linear Mechanics</i> , 2008, 43, 111-123.	1.4	82
7	Averaging Oscillations with Small Fractional Damping and Delayed Terms. <i>Nonlinear Dynamics</i> , 2004, 38, 3-22.	2.7	77
8	Cantilever beam electrostatic MEMS actuators beyond pull-in. <i>Journal of Micromechanics and Microengineering</i> , 2006, 16, 1800-1810.	1.5	70
9	A Dynamical Systems Approach to Damage Evolution Tracking, Part 2: Model-Based Validation and Physical Interpretation. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2002, 124, 258-264.	1.0	67
10	Statistical origins of fractional derivatives in viscoelasticity. <i>Journal of Sound and Vibration</i> , 2005, 284, 1239-1245.	2.1	64
11	Regenerative Tool Chatter Near a Codimension 2 Hopf Point Using Multiple Scales. <i>Nonlinear Dynamics</i> , 2005, 40, 323-338.	2.7	54
12	Galerkin Projections for Delay Differential Equations. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2005, 127, 80-87.	0.9	47
13	Galerkin Projections and Finite Elements for Fractional Order Derivatives. <i>Nonlinear Dynamics</i> , 2006, 45, 183-206.	2.7	42
14	Small slope implies low speed for McGeer's passive walking machines. <i>Dynamical Systems</i> , 2000, 15, 139-157.	0.7	33
15	Hands-free circular motions of a benchmark bicycle. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2007, 463, 1983-2003.	1.0	30
16	Optimum energy extraction from rotational motion in a parametrically excited pendulum. <i>Mechanics Research Communications</i> , 2012, 43, 7-14.	1.0	30
17	On the Realism of Complementarity Conditions in Rigid Body Collisions. <i>Nonlinear Dynamics</i> , 1999, 20, 159-168.	2.7	29
18	Approximate Asymptotics for a Nonlinear Mathieu Equation Using Harmonic Balance Based Averaging. <i>Nonlinear Dynamics</i> , 2003, 31, 347-365.	2.7	28

#	ARTICLE	IF	CITATIONS
19	New approximations, and policy implications, from a delayed dynamic model of a fast pandemic. <i>Physica D: Nonlinear Phenomena</i> , 2020, 414, 132701.	1.3	27
20	Resonance, Parameter Estimation, and Modal Interactions in a Strongly Nonlinear Benchmark Oscillator. <i>Nonlinear Dynamics</i> , 2005, 40, 149-167.	2.7	20
21	Geometry optimization of axially symmetric ion traps. <i>International Journal of Mass Spectrometry</i> , 2007, 264, 38-52.	0.7	19
22	Escape velocity and resonant ion dynamics in Paul trap mass spectrometers. <i>International Journal of Mass Spectrometry</i> , 2004, 231, 1-16.	0.7	17
23	Motional coherence during resonance ejection of ions from Paul traps. <i>International Journal of Mass Spectrometry</i> , 2007, 261, 159-169.	0.7	17
24	Asymmetric Mathieu equations. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2006, 462, 1643-1659.	1.0	14
25	Multiple scales analysis of early and delayed boundary ejection in Paul traps. <i>International Journal of Mass Spectrometry</i> , 2007, 261, 170-182.	0.7	11
26	Vibrations of a Beam in Variable Contact With a Flat Surface. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2009, 131, .	1.0	11
27	Transverse impact of a Hertzian body with an infinitely long Euler-Bernoulli beam. <i>Journal of Sound and Vibration</i> , 2018, 429, 147-161.	2.1	11
28	Asymptotics for the Characteristic Roots of Delayed Dynamic Systems. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2005, 72, 475-483.	1.1	10
29	Anomalous Frictional Behavior in Collisions of Thin Disks Revisited. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2008, 75, .	1.1	10
30	A two-state hysteresis model for bolted joints, with minor loops from partial unloading. <i>International Journal of Mechanical Sciences</i> , 2018, 140, 506-520.	3.6	10
31	Vibrations of an Euler-Bernoulli beam with hysteretic damping arising from dispersed frictional microcracks. <i>Journal of Sound and Vibration</i> , 2018, 412, 287-308.	2.1	10
32	Overhead water tank shapes with depth-independent sloshing frequencies for use as TLDs in buildings. <i>Structural Control and Health Monitoring</i> , 2018, 25, e2049.	1.9	10
33	Dissipation in the Bouc-Wen model: Small amplitude, large amplitude and two-frequency forcing. <i>Journal of Sound and Vibration</i> , 2013, 332, 1807-1819.	2.1	9
34	A reduced-order model from high-dimensional frictional hysteresis. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2014, 470, 20130817.	1.0	9
35	Complete dimensional collapse in the continuum limit of a delayed SEIQR network model with separable distributed infectivity. <i>Nonlinear Dynamics</i> , 2020, 101, 1653-1665.	2.7	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. <i>Nonlinear Dynamics</i> , 2010, 62, 705-716.	2.7	8
38	Beyond fractional derivatives: local approximation of other convolution integrals. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2010, 466, 563-581.	1.0	8
39	Decoupled three-dimensional finite element computation of thermoelastic damping using Zener's approximation. <i>Meccanica</i> , 2011, 46, 371-381.	1.2	8
40	Scalar generalization of Newtonian restitution for simultaneous impact. <i>International Journal of Mechanical Sciences</i> , 2015, 103, 141-157.	3.6	8
41	Hysteretic damping in an elastic body with frictional microcracks. <i>International Journal of Mechanical Sciences</i> , 2016, 108-109, 61-71.	3.6	8
42	ADAMS model validation for an all-terrain vehicle using test track data. <i>Advances in Mechanical Engineering</i> , 2019, 11, 168781401985978.	0.8	8
43	Asymptotic Parameter Estimation via Implicit Averaging on a Nonlinear Extended System. <i>Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME</i> , 2003, 125, 11-18.	0.9	7
44	Higher-Order Pseudoaveraging via Harmonic Balance for Strongly Nonlinear Oscillations. <i>Journal of Vibration and Acoustics, Transactions of the ASME</i> , 2005, 127, 416-419.	1.0	7
45	Modal projections for synchronous rotor whirl. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2008, 464, 1739-1760.	1.0	7
46	Continuation of limit cycles near saddle homoclinic points using splines in phase space. <i>Nonlinear Dynamics</i> , 2009, 57, 383-399.	2.7	7
47	Numerical Stability Analysis of Linear Incommensurate Fractional Order Systems. <i>Journal of Computational and Nonlinear Dynamics</i> , 2013, 8, .	0.7	7
48	A generalized quarter car modelling approach with frame flexibility and other nonlocal effects. <i>Sadhana - Academy Proceedings in Engineering Sciences</i> , 2017, 42, 1175-1192.	0.8	7
49	The Short-Time Impulse Response of Euler-Bernoulli Beams. <i>Journal of Applied Mechanics, Transactions ASME</i> , 2004, 71, 208-218.	1.1	6
50	The Simplest Resonance Capture Problem, Using Harmonic Balance Based Averaging. <i>Nonlinear Dynamics</i> , 2004, 37, 271-284.	2.7	6
51	Common underlying steering curves for motorcycles in steady turns. <i>Vehicle System Dynamics</i> , 2011, 49, 931-948.	2.2	6
52	Modal damping in vibrating objects via dissipation from dispersed frictional microcracks. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2013, 469, 20120685.	1.0	6
53	A two-state hysteresis model from high-dimensional friction. <i>Royal Society Open Science</i> , 2015, 2, 150188.	1.1	6
54	Restitution modeling in vibration-dominated impacts using energy minimization under outward constraints. <i>International Journal of Mechanical Sciences</i> , 2020, 166, 105215.	3.6	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.	0.9	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.	3.6	5
57	Performance limit for base-excited energy harvesting, and comparison with experiments. Nonlinear Dynamics, 2021, 103, 197-214.	2.7	5
58	Analytical Investigation of Hydrodynamic Cavitation Control by Ultrasonics. Nonlinear Dynamics, 2006, 46, 179-194.	2.7	4
59	Nonlinear secondary whirl of an overhung rotor. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2010, 466, 283-301.	1.0	3
60	Unified Galerkin- and DAE-Based Approximation of Fractional Order Systems. Journal of Computational and Nonlinear Dynamics, 2011, 6, .	0.7	3
61	Planar oscillations of a boat in a tank. International Journal of Mechanical Sciences, 2014, 79, 152-161.	3.6	3
62	Computational prediction of modal damping ratios in thin-walled structures. Journal of Sound and Vibration, 2014, 333, 7125-7134.	2.1	3
63	Stability aspects of the Hayes delay differential equation with scalable hysteresis. Nonlinear Dynamics, 2018, 93, 1377-1393.	2.7	3
64	Acoustics of Idakkā: An Indian snare drum with definite pitch. Journal of the Acoustical Society of America, 2018, 143, 3184-3194.	0.5	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.	1.6	3
66	Towards design of a nonlinear vibration stabilizer for suppressing single-mode instability. Nonlinear Dynamics, 2021, 103, 1563-1583.	2.7	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, .	0.7	2
69	Unifying averaged dynamics of the Fokker-Planck equation for Paul traps. Physics of Plasmas, 2019, 26, 012302.	0.7	2
70	Nonlinear responses of an SDOF structure with a light, whirling, driven, untuned pendulum. International Journal of Mechanical Sciences, 2020, 168, 105305.	3.6	2
71	DAE-based solution of nonlinear multiterm fractional integrodifferential equations. Journal European Des Systemes Automatises, 2008, 42, 677-688.	0.3	2
72	Mathematics in engineeringâ€”Part II. Resonance, 2005, 10, 39-53.	0.2	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, .	0.7	1
75	Unexpectedly low angular extent of journal bearing pressures: experiment and theory. Zeitschrift Fur Angewandte Mathematik Und Physik, 2015, 66, 455-471.	0.7	1
76	Rationally Derived Three-Parameter Models for Elastomeric Suspension Bushings: Theory and Experiment. Journal of Testing and Evaluation, 2019, 47, 1271-1294.	0.4	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.	1.0	0
78	An engineering-design oriented exploration of human excellence in throwing. Sadhana - Academy Proceedings in Engineering Sciences, 2018, 43, 1.	0.8	0
79	A Linear $S-N$ Curve with Load Dependent Variance and Explicit Failure Probability. Journal of Testing and Evaluation, 2012, 40, 557-564.	0.4	0