Anindya Chatterjee

List of Publications by Citations

79 papers	1,937 citations	19 h-index	43 g-index
80 ext. papers	2,215 ext. citations	3 avg, IF	4.96 L-index

#	Paper	IF	Citations
79	The simplest walking model: stability, complexity, and scaling. *Journal of Biomechanical Engineering*, **1998**, 120, 281-8	2.1	678
78	Asymptotic solution for solitary waves in a chain of elastic spheres. *Physical Review E*, **1999**, 59, 5912-9	2.4	150
77	Motions of a rimless spoked wheel: a simple three-dimensional system with impacts. *Dynamical Systems*, **1997**, 12, 139-159		102
76	Efficiency, speed, and scaling of two-dimensional passive-dynamic walking. *Dynamical Systems*, **2000**, 15, 75-99		102
75	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	73
74	Averaging Oscillations with Small Fractional Damping and Delayed Terms. *Nonlinear Dynamics*, **2004**, 38, 3-22	5	72
73	Self-interrupted regenerative metal cutting in turning. *International Journal of Non-Linear Mechanics*, **2008**, 43, 111-123	2.8	62
72	Cantilever beam electrostatic MEMS actuators beyond pull-in. *Journal of Micromechanics and Microengineering*, **2006**, 16, 1800-1810	2	56
71	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	53
70	Statistical origins of fractional derivatives in viscoelasticity. *Journal of Sound and Vibration*, **2005**, 284, 1239-1245	3.9	48
69	Regenerative Tool Chatter Near a Codimension 2 Hopf Point Using Multiple Scales. *Nonlinear Dynamics*, **2005**, 40, 323-338	5	48
68	Galerkin Projections for Delay Differential Equations. *Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME*, **2005**, 127, 80-87	1.6	38
67	Galerkin Projections and Finite Elements for Fractional Order Derivatives. *Nonlinear Dynamics*, **2006**, 45, 183-206	5	30
66	On the Realism of Complementarity Conditions in Rigid Body Collisions. *Nonlinear Dynamics*, **1999**, 20, 159-168	5	28
65	Hands-free circular motions of a benchmark bicycle. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2007**, 463, 1983-2003	2.4	24
64	Small slope implies low speed for McGeer's passive walking machines. *Dynamical Systems*, **2000**, 15, 139-157		24
63	Optimum energy extraction from rotational motion in a parametrically excited pendulum. *Mechanics Research Communications*, **2012**, 43, 7-14	2.2	23

62	Approximate Asymptotics for a Nonlinear Mathieu Equation Using Harmonic Balance Based Averaging. *Nonlinear Dynamics*, **2003**, 31, 347-365	5	20
61	New approximations, and policy implications, from a delayed dynamic model of a fast pandemic. *Physica D: Nonlinear Phenomena*, **2020**, 414, 132701	3.3	20
60	Geometry optimization of axially symmetric ion traps. *International Journal of Mass Spectrometry*, **2007**, 264, 38-52	1.9	17
59	Resonance, Parameter Estimation, and Modal Interactions in a Strongly Nonlinear Benchtop Oscillator. *Nonlinear Dynamics*, **2005**, 40, 149-167	5	17
58	Motional coherence during resonance ejection of ions from Paul traps. *International Journal of Mass Spectrometry*, **2007**, 261, 159-169	1.9	14
57	Escape velocity and resonant ion dynamics in Paul trap mass spectrometers. *International Journal of Mass Spectrometry*, **2004**, 231, 1-16	1.9	14
56	Asymmetric Mathieu equations. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2006**, 462, 1643-1659	2.4	10
55	Vibrations of a Beam in Variable Contact With a Flat Surface. *Journal of Vibration and Acoustics, Transactions of the ASME*, **2009**, 131,	1.6	9
54	Scalar generalization of Newtonian restitution for simultaneous impact. *International Journal of Mechanical Sciences*, **2015**, 103, 141-157	5.5	8
53	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	8
52	Dissipation in the Bouc–Wen model: Small amplitude, large amplitude and two-frequency forcing. *Journal of Sound and Vibration*, **2013**, 332, 1807-1819	3.9	8
51	A reduced-order model from high-dimensional frictional hysteresis. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2014**, 470, 20130817	2.4	8
50	Anomalous Frictional Behavior in Collisions of Thin Disks Revisited. *Journal of Applied Mechanics, Transactions ASME*, **2008**, 75,	2.7	8
49	Multiple scales analysis of early and delayed boundary ejection in Paul traps. *International Journal of Mass Spectrometry*, **2007**, 261, 170-182	1.9	8
48	Decoupled three-dimensional finite element computation of thermoelastic damping using Zener's approximation. *Meccanica*, **2011**, 46, 371-381	2.1	7
47	Beyond fractional derivatives: local approximation of other convolution integrals. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2010**, 466, 563-581	2.4	7
46	Continuation of limit cycles near saddle homoclinic points using splines in phase space. *Nonlinear Dynamics*, **2009**, 57, 383-399	5	7
45	Infinite dimensional slow modulations in a well known delayed model for cutting tool vibrations. *Nonlinear Dynamics*, **2010**, 62, 705-716	5	7

44	Modal projections for synchronous rotor whirl. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2008**, 464, 1739-1760	2.4	7
43	Asymptotics for the Characteristic Roots of Delayed Dynamic Systems. *Journal of Applied Mechanics, Transactions ASME*, **2005**, 72, 475-483	2.7	7
42	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
41	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
40	Transverse impact of a Hertzian body with an infinitely long Euler-Bernoulli beam. *Journal of Sound and Vibration*, **2018**, 429, 147-161	3.9	7
39	A two-state hysteresis model from high-dimensional friction. *Royal Society Open Science*, **2015**, 2, 150188	3.3	6
38	Galerkin Projections for Delay Differential Equations **2003**, 2211		6
37	The Simplest Resonance Capture Problem, Using Harmonic Balance Based Averaging. *Nonlinear Dynamics*, **2004**, 37, 271-284	5	6
36	Overhead water tank shapes with depth-independent sloshing frequencies for use as TLDs in buildings. *Structural Control and Health Monitoring*, **2018**, 25, e2049	4.5	6
35	Hysteretic damping in an elastic body with frictional microcracks. *International Journal of Mechanical Sciences*, **2016**, 108-109, 61-71	5.5	5
34	An internal damping formula derived from dispersed elasto-plastic flaws with Weibull-distributed strengths. *International Journal of Mechanical Sciences*, **2014**, 87, 137-149	5.5	5
33	Numerical Stability Analysis of Linear Incommensurate Fractional Order Systems. *Journal of Computational and Nonlinear Dynamics*, **2013**, 8,	1.4	5
32	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	2.4	5
31	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
30	A two-state hysteresis model for bolted joints, with minor loops from partial unloading. *International Journal of Mechanical Sciences*, **2018**, 140, 506-520	5.5	4
29	A generalized quarter car modelling approach with frame flexibility and other nonlocal effects. *Sadhana - Academy Proceedings in Engineering Sciences*, **2017**, 42, 1175-1192	1	4
28	Nonlinear secondary whirl of an overhung rotor. *Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences*, **2010**, 466, 283-301	2.4	3
27	Unified Galerkin- and DAE-Based Approximation of Fractional Order Systems. *Journal of Computational and Nonlinear Dynamics*, **2011**, 6,	1.4	3

26	The Short-Time Impulse Response of Euler-Bernoulli Beams. *Journal of Applied Mechanics, Transactions ASME*, **2004**, 71, 208-218	2.7	3
25	Complete dimensional collapse in the continuum limit of a delayed SEIQR network model with separable distributed infectivity. *Nonlinear Dynamics*, **2020**, 101, 1-13	5	3
24	Acoustics of Idakkā—An Indian snare drum with definite pitch. *Journal of the Acoustical Society of America*, **2018**, 143, 3184	2.2	2
23	ADAMS model validation for an all-terrain vehicle using test track data. *Advances in Mechanical Engineering*, **2019**, 11, 168781401985978	1.2	2
22	Computational prediction of modal damping ratios in thin-walled structures. *Journal of Sound and Vibration*, **2014**, 333, 7125-7134	3.9	2
21	Common underlying steering curves for motorcycles in steady turns. *Vehicle System Dynamics*, **2011**, 49, 931-948	2.8	2
20	Analytical Investigation of Hydrodynamic Cavitation Control by Ultrasonics. *Nonlinear Dynamics*, **2006**, 46, 179-194	5	2
19	DAE-based solution of nonlinear multiterm fractional integrodifferential equations. *Journal Europeen Des Systemes Automatises*, **2008**, 42, 677-688	1.8	2
18	Restitution modeling in vibration-dominated impacts using energy minimization under outward constraints. *International Journal of Mechanical Sciences*, **2020**, 166, 105215	5.5	2
17	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	4.9	2
16	Stability aspects of the Hayes delay differential equation with scalable hysteresis. *Nonlinear Dynamics*, **2018**, 93, 1377-1393	5	1
15	Planar oscillations of a boat in a tank. *International Journal of Mechanical Sciences*, **2014**, 79, 152-161	5.5	1
14	Simple Recipe for Accurate Solution of Fractional Order Equations. *Journal of Computational and Nonlinear Dynamics*, **2013**, 8,	1.4	1
13	Interplay Between Dissipation and Modal Truncation in Ball-Beam Impact. *Journal of Computational and Nonlinear Dynamics*, **2017**, 12,	1.4	1
12	Infinite Dimensional Slow Modulations in a Delayed Model for Orthogonal Cutting Vibrations **2008**,		1
11	Mathematics in engineering—Part II **2005**, 10, 39-53		1
10	Nonlinear responses of an SDOF structure with a light, whirling, driven, untuned pendulum. *International Journal of Mechanical Sciences*, **2020**, 168, 105305	5.5	1
9	Unifying averaged dynamics of the Fokker-Planck equation for Paul traps. *Physics of Plasmas*, **2019**, 26, 012302	2.1	1

8	Fractional Damping: Stochastic Origin and Finite Approximations **2007**, 389-402		1
7	Performance limit for base-excited energy harvesting, and comparison with experiments. *Nonlinear Dynamics*, **2021**, 103, 197-214	5	0
6	Towards design of a nonlinear vibration stabilizer for suppressing single-mode instability. *Nonlinear Dynamics*, **2021**, 103, 1563-1583	5	0
5	Unexpectedly low angular extent of journal bearing pressures: experiment and theory. *Zeitschrift Fur Angewandte Mathematik Und Physik*, **2015**, 66, 455-471	1.6	
4	An engineering-design oriented exploration of human excellence in throwing. *Sadhana - Academy Proceedings in Engineering Sciences*, **2018**, 43, 1		1
3	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	
2	Rationally Derived Three-Parameter Models for Elastomeric Suspension Bushings: Theory and Experiment. *Journal of Testing and Evaluation*, **2019**, 47, 20170102		1
1	A LinearS-NCurve with Load Dependent Variance and Explicit Failure Probability. *Journal of Testing and Evaluation*, **2012**, 40, 104419		1