Bala Sundaram

List of Publications by Year
in descending order

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78 papers	2,734 citations	318942 23 h-index	198040 52 g-index
80 all docs	80 docs citations	80 times ranked	2049 citing authors

#	Article	IF	Citations
1	Relationship between nonlinearities and thermalization in classical open systems: The role of the interaction range. Physical Review E, 2022, 105, .	0.8	2
2	Scaling laws for harmonically trapped two-species mixtures at thermal equilibrium. Physical Review E, 2019, 99, 022116.	0.8	2
3	Simulating sympathetic cooling of atomic mixtures in nonlinear traps. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2783-2791.	0.9	3
4	Universal and anomalous behavior in the thermalization of strongly interacting harmonically trapped gas mixtures. Journal of Physics B: Atomic, Molecular and Optical Physics, 2017, 50, 135005.	0.6	5
5	Emergence of local synchronization in neuronal networks with adaptive couplings. PLoS ONE, 2017, 12, e0178975.	1.1	21
6	Effective microscopic models for sympathetic cooling of atomic gases. Physical Review A, 2015, 92, .	1.0	6
7	Ehrenfest approach to open double-well dynamics. Physical Review E, 2015, 92, 042907.	0.8	5
8	Competitively coupled maps and spatial pattern formation. Physical Review E, 2013, 87, 022902.	0.8	7
9	Ehrenfest dynamics and frictionless cooling methods. Physical Review A, 2013, 88, .	1.0	11
10	Attack Robustness and Centrality of Complex Networks. PLoS ONE, 2013, 8, e59613.	1.1	346
11	Squeezing and robustness of frictionless cooling strategies. Physical Review A, 2012, 86, .	1.0	22
12	Optimized sympathetic cooling of atomic mixtures via fast adiabatic strategies. Physical Review A, 2011, 84, .	1.0	44
13	A quantum description of bubble growth in a superheated fluid. Physics Letters, Section A: General, Atomic and Solid State Physics, 2010, 374, 3280-3284.	0.9	4
14	Single-photon cooling in a wedge billiard. Physical Review A, 2010, 82, .	1.0	4
15	A statistical construction of power-law networks. International Journal of Parallel, Emergent and Distributed Systems, 2010, 25, 223-235.	0.7	21
16	Persistent patterns and multifractality in fluid mixing. Physical Review E, 2009, 79, 066202.	0.8	5
17	A Parsimonious Statistical Protocol for Generating Power-Law Networks. , 2009, , .		2
18	Comment on â€œNonmonotonicity in the Quantum-Classical Transition: Chaos Induced by Quantum Effectsâ€• Physical Review Letters, 2009, 102, 119401; discussion 119402.	2.9	6

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19	Bose-Einstein condensate as a nonlinear Ramsey interferometer operating beyond the Heisenberg limit. Physical Review A, 2008, 77, .	1.0	70
20	Field-induced phases of an orientable charged particle in a dilute background of point charges. Chaos, 2008, 18, 013109.	1.0	0
21	Atom lasers are not monochromatic. Physical Review A, 2008, 77, .	1.0	3
22	Conditions for the quantum-to-classical transition: Trajectories versus phase-space distributions. Physical Review E, 2007, 76, 036213.	0.8	0
23	Semiclassics of the chaotic quantum-classical transition. Physical Review E, 2007, 76, 046215.	0.8	17
24	Acoustical dead zones and the spatial aggregation of whale strandings. Journal of Theoretical Biology, 2006, 238, 764-770.	0.8	27
25	Chaotic dynamics of the relativistic kicked rotor. , 2006, , 173-178.		0
26	Scarred states in strongly coupled quantum systems. , 2006, , 31-42.		0
27	Chaos and Quantum Mechanics. Annals of the New York Academy of Sciences, 2005, 1045, 308-332.	1.8	4
28	The semiclassical regime of the chaotic quantum-classical transition. Chaos, 2005, 15, 033302.	1.0	6
29	Relativistic kicked rotor. Physical Review E, 2005, 72, 016213.	0.8	16
30	Perturbation theory for the Stark effect in a double Â quantum well. Journal of Physics A, 2004, 37, 9735-9748.	1.6	11
31	Stochastic cooling in confined geometries. Journal of the Optical Society of America B: Optical Physics, 2003, 20, 1141.	0.9	2
32	Parameter Scaling in the Decoherent Quantum-Classical Transition for Chaotic Systems. Physical Review Letters, 2003, 90, 014103.	2.9	28
33	Stark resonances stemming from continuum thresholds. Physical Review A, 2003, 68, .	1.0	5
34	Quantum-Classical Transition in Nonlinear Dynamical Systems. Physical Review Letters, 2002, 88, 040402.	2.9	41
35	Quantized Orbits and Resonant Transport. Physical Review Letters, 2000, 84, 4581-4584.	2.9	6
36	Anomalous transport and quantum-classical correspondence. Physical Review E, 1999, 59, 7231-7234.	0.8	30

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37	Localization and fluctuations in quantum kicked rotors. Physical Review E, 1999, 60, 453-458.	0.8	6
38	Dynamical localization of ultracold sodium atoms. Physical Review E, 1999, 60, 3881-3895.	0.8	60
39	Wave analysis of ray chaos in underwater acoustics. Chaos, 1999, 9, 483-492.	1.0	15
40	Stochastic cooling of atoms using lasers. Physical Review A, 1998, 58, 4757-4760.	1.0	55
41	Observation of atomic tunneling from an accelerating optical potential. Physical Review A, 1997, 55, R857-R860.	1.0	110
42	Comment on â€œNature of Quantum Localization in Atomic Momentum Transfer Experimentsâ€• Physical Review Letters, 1997, 78, 1194-1194.	2.9	5
43	Experimental evidence for non-exponential decay in quantum tunnelling. Nature, 1997, 387, 575-577.	13.7	178
44	Quantum chaology: The photoeffect and beyond. Pramana - Journal of Physics, 1997, 48, 469-486.	0.9	0
45	An experimental realization of the quantum -kicked rotor. Quantum and Semiclassical Optics: Journal of the European Optical Society Part B, 1996, 8, 687-692.	1.0	8
46	Quantum Chaos and the Limits of Semiclassical Prediction. Physical Review Letters, 1996, 77, 263-266.	2.9	2
47	Periodic Orbit Origins of Dynamical Localization. Physical Review Letters, 1996, 76, 4907-4910.	2.9	8
48	Can a Single-Pulse Standing Wave Induce Chaos in Atomic Motion?. Physical Review Letters, 1996, 76, 3304-3307.	2.9	39
49	A standard perspective on ghosts. Physica D: Nonlinear Phenomena, 1995, 83, 257-270.	1.3	9
50	Atom Optics Realization of the QuantumÎ´-Kicked Rotor. Physical Review Letters, 1995, 75, 4598-4601.	2.9	533
51	Chaos and low-order corrections to classical mechanics or geometrical optics. Physical Review E, 1995, 51, 1971-1982.	0.8	38
52	Strong correspondence principle and the classical-resonance overlap criterion for the onset of chaos. Physical Review A, 1995, 51, 4018-4029.	1.0	4
53	Study of Quantum Dynamics in the Transition from Classical Stability to Chaos. Physical Review Letters, 1995, 74, 3963-3966.	2.9	98
54	Role of parametric noise in nonintegrable quantum dynamics. Physical Review E, 1994, 49, R2509-R2512.	0.8	3

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55	Traces of ghost orbits in the quantum standard map. Physical Review E, 1994, 49, R4767-R4770.	0.8	14
56	I Atoms in Strong Fields: Photoionization and Chaos. Progress in Optics, 1993, 31, 1-137.	0.4	4
57	â€˜â€˜Scarringâ€™â€™ and suppression of ionization in very intense radiation fields. Physical Review A, 1993, 47, 1415-1430.	1.0	30
58	Quantum signatures of homoclinic tangles and separatrices. Physical Review A, 1992, 45, 3615-3628.	1.0	20
59	Periodic orbits in quantum standard maps. Physical Review A, 1992, 46, 3164-3177.	1.0	15
60	Chaotic laser-matter interaction. Physics Letters, Section A: General, Atomic and Solid State Physics, 1991, 154, 346-352.	0.9	20
61	Theory of the fundamental laser linewidth. Physical Review A, 1991, 44, 1969-1985.	1.0	78
62	Classical and quantal morphology of a piecewise-linear standard map. Physical Review A, 1991, 43, 3183-3186.	1.0	10
63	Laser Linewidth: Amplification of Vacuum Fluctuations and Effects of Spatial Hole Burning. Journal of Modern Optics, 1991, 38, 1421-1427.	0.6	16
64	Theory of the fundamental laser linewidth. II. Physical Review A, 1991, 44, 4556-4563.	1.0	16
65	Interplay of localization and coherence effects. Physics Letters, Section A: General, Atomic and Solid State Physics, 1990, 145, 232-236.	0.9	1
66	Perturbation theory for Floquet eigenvalues in a zero-range potential. Physical Review A, 1990, 42, 452-458.	1.0	6
67	Ordering characterized by a strange attractor. Physical Review A, 1990, 41, 5713-5716.	1.0	4
68	Quantum logistic map. Physical Review A, 1990, 41, 5705-5708.	1.0	55
69	High-order harmonic generation: Simplified model and relevance of single-atom theories to experiment. Physical Review A, 1990, 41, 6571-6573.	1.0	175
70	Modeling strong-field above-threshold ionization. Journal of the Optical Society of America B: Optical Physics, 1990, 7, 414.	0.9	15
71	Quantal phase-space analysis of the driven surface-state electron. Physical Review A, 1989, 39, 2862-2877.	1.0	11
72	Inhibition of quantum transport due to â€˜â€˜scarsâ€™â€™ of unstable periodic orbits. Physical Review Letters, 1989, 63, 2771-2775.	2.9	102

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73	Tight-binding representation for rf floquet states. Physics Letters, Section A: General, Atomic and Solid State Physics, 1989, 140, 400-404.	0.9	3
74	Role of excited states in multiphoton dynamics. Physical Review A, 1988, 38, 152-161.	1.0	26
75	Static-field effects on the ionization of a sinusoidally driven weakly bound electron. Physical Review A, 1987, 36, 417-420.	1.0	17
76	Dressed-state perturbation theory for multiphoton ionization of atoms. Journal of the Optical Society of America B: Optical Physics, 1987, 4, 754.	0.9	23
77	Quantum Dynamics for Driven Weakly Bound Electrons near the Threshold for Classical Chaos. Physical Review Letters, 1986, 56, 1007-1010.	2.9	79
78	Microwave absorption by hydrogen atoms in high Rydberg states. Physical Review A, 1985, 32, 689-691.	1.0	41