

# Arul Lakshminarayan

## List of Publications by Year in descending order

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76  
papers

1,552  
citations

304368

22  
h-index

344852

36  
g-index

78  
all docs

78  
docs citations

78  
times ranked

717  
citing authors

#	ARTICLE	IF	CITATIONS
1	Thirty-six Entangled Officers of Euler: Quantum Solution to a Classically Impossible Problem. <i>Physical Review Letters</i> , 2022, 128, 080507.	2.9	15
2	Out-of-time-order correlators of nonlocal block-spin and random observables in integrable and nonintegrable spin chains. <i>Physical Review B</i> , 2022, 105, .	1.1	5
3	Quantum walks with quantum chaotic coins: Loschmidt echo, classical limit, and thermalization. <i>Physical Review E</i> , 2021, 103, 012207.	0.8	6
4	Out-of-time-ordered correlators and the Loschmidt echo in the quantum kicked top: how low can we go?. <i>Journal Physics D: Applied Physics</i> , 2021, 54, 274004.	1.3	12
5	From dual-unitary to quantum Bernoulli circuits: Role of the entangling power in constructing a quantum ergodic hierarchy. <i>Physical Review Research</i> , 2021, 3, .	1.3	29
6	Creating Ensembles of Dual Unitary and Maximally Entangling Quantum Evolutions. <i>Physical Review Letters</i> , 2020, 125, 070501.	2.9	36
7	Entanglement production by interaction quenches of quantum chaotic subsystems. <i>Physical Review E</i> , 2020, 101, 032212.	0.8	9
8	Scrambling in strongly chaotic weakly coupled bipartite systems: Universality beyond the Ehrenfest timescale. <i>Physical Review B</i> , 2020, 101, .	1.1	35
9	Entanglement measures of bipartite quantum gates and their thermalization under arbitrary interaction strength. <i>Physical Review Research</i> , 2020, 2, .	1.3	12
10	Quantum signatures of chaos, thermalization, and tunneling in the exactly solvable few-body kicked top. <i>Physical Review E</i> , 2019, 99, 062217.	0.8	14
11	Out-of-time-ordered correlators and quantum walks. <i>Physical Review E</i> , 2019, 99, 062128.	0.8	6
12	Out-of-time-ordered correlator in the quantum baker's map and truncated unitary matrices. <i>Physical Review E</i> , 2019, 99, 012201.	0.8	31
13	Ordered level spacing probability densities. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2019, 52, 025101.	0.7	10
14	Quantum correlations as probes of chaos and ergodicity. <i>Optics Communications</i> , 2018, 420, 189-193.	1.0	16
15	Tripartite mutual information, entanglement, and scrambling in permutation symmetric systems with an application to quantum chaos. <i>Physical Review E</i> , 2018, 98, .	0.8	34
16	Entangling power of time-evolution operators in integrable and nonintegrable many-body systems. <i>Physical Review B</i> , 2018, 98, .	1.1	35
17	Eigenstate entanglement between quantum chaotic subsystems: Universal transitions and power laws in the entanglement spectrum. <i>Physical Review E</i> , 2018, 98, .	0.8	16
18	Quantum walk on a toral phase space. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2018, 51, 385306.	0.7	5

#	ARTICLE	IF	CITATIONS
19	Impact of local dynamics on entangling power. <i>Physical Review A</i> , 2017, 95, .	1.0	18
20	Simple permutation-based measure of quantum correlations and maximally-3-tangled states. <i>Physical Review A</i> , 2016, 94, .	1.0	3
21	Local entanglement structure across a many-body localization transition. <i>Physical Review B</i> , 2016, 93, .	1.1	31
22	Universal Scaling of Spectral Fluctuation Transitions for Interacting Chaotic Systems. <i>Physical Review Letters</i> , 2016, 116, 054101.	2.9	19
23	Entanglement and localization transitions in eigenstates of interacting chaotic systems. <i>Physical Review E</i> , 2016, 94, 010205.	0.8	20
24	Persistent entanglement in a class of eigenstates of quantum Heisenberg spin glasses. <i>Europhysics Letters</i> , 2016, 115, 57005.	0.7	3
25	Real eigenvalues of non-Gaussian random matrices and their products. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2015, 48, 385204.	0.7	10
26	Protocol using kicked Ising dynamics for generating states with maximal multipartite entanglement. <i>Physical Review A</i> , 2015, 91, .	1.0	14
27	Records in the classical and quantum standard map. <i>Chaos, Solitons and Fractals</i> , 2015, 74, 67-78.	2.5	7
28	Resonance and generation of random states in a quenched Ising model. <i>Europhysics Letters</i> , 2014, 105, 10002.	0.7	8
29	Diagonal unitary entangling gates and contradiagonal quantum states. <i>Physical Review A</i> , 2014, 90, .	1.0	23
30	Entanglement signatures for the dimerization transition in the Majumdar-Ghosh model. <i>Physical Review A</i> , 2013, 87, .	1.0	5
31	On the number of real eigenvalues of products of random matrices and an application to quantum entanglement. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013, 46, 152003.	0.7	16
32	Using partial transpose and realignment to generate local unitary invariants. <i>Physical Review A</i> , 2013, 87, .	1.0	5
33	Record statistics in random vectors and quantum chaos. <i>Europhysics Letters</i> , 2013, 101, 10003.	0.7	6
34	Localized zero-energy modes in the Kitaev model with vacancy disorder. <i>Physical Review B</i> , 2012, 85, .	1.1	20
35	Entanglement between two subsystems, the Wigner semicircle and extreme-value statistics. <i>Physical Review A</i> , 2012, 85, .	1.0	24
36	Entanglement transitions in random definite particle states. <i>Physical Review A</i> , 2011, 84, .	1.0	6

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37	Kolmogorov-Sinai entropy of many-body Hamiltonian systems. <i>Physical Review E</i> , 2011, 84, 016218.	0.8	7
38	Entanglement optimizing mixtures of two-qubit states. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2011, 44, 345301.	0.7	12
39	Fluctuations in classical sum rules. <i>Physical Review E</i> , 2010, 82, 046223.	0.8	2
40	Exact Minimum Eigenvalue Distribution of an Entangled Random Pure State. <i>Journal of Statistical Physics</i> , 2008, 131, 33-49.	0.5	44
41	Effect of classical bifurcations on the quantum entanglement of two coupled quartic oscillators. <i>Physical Review E</i> , 2008, 77, 026213.	0.8	15
42	Extreme Statistics of Complex Random and Quantum Chaotic States. <i>Physical Review Letters</i> , 2008, 100, 044103.	2.9	33
43	Fluctuations of finite-time stability exponents in the standard map and the detection of small islands. <i>Physical Review E</i> , 2007, 76, 036207.	0.8	29
44	Modular multiplication operator and quantized baker's maps. <i>Physical Review A</i> , 2007, 76, .	1.0	1
45	Entanglement, avoided crossings, and quantum chaos in an Ising model with a tilted magnetic field. <i>Physical Review A</i> , 2007, 75, .	1.0	66
46	Borromean triangles and prime knots in an ancient temple. <i>Resonance</i> , 2007, 12, 41-47.	0.2	0
47	Transport of entanglement through a Heisenberg XY spin chain. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2006, 349, 164-169.	0.9	22
48	Quantum chaos in the spectrum of operators used in Shor's algorithm. <i>Physical Review E</i> , 2006, 74, 035203.	0.8	10
49	Using the Hadamard and related transforms for simplifying the spectrum of the quantum baker's map. <i>Journal of Physics A</i> , 2006, 39, 11205-11216.	1.6	8
50	Shuffling cards, factoring numbers and the quantum baker's map. <i>Journal of Physics A</i> , 2005, 38, L597-L605.	1.6	10
51	Entanglement production in quantized chaotic systems. <i>Pramana - Journal of Physics</i> , 2005, 64, 577-592.	0.9	6
52	Multipartite entanglement in a one-dimensional time-dependent Ising model. <i>Physical Review A</i> , 2005, 71, .	1.0	72
53	Multifractal eigenstates of quantum chaos and the Thue-Morse sequence. <i>Physical Review E</i> , 2005, 71, 065303.	0.8	24
54	Entanglement production in coupled chaotic systems: Case of the kicked tops. <i>Physical Review E</i> , 2004, 69, 016201.	0.8	87

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55	Local identities involving Jacobi elliptic functions. <i>Pramana - Journal of Physics</i> , 2004, 62, 1201-1229.	0.9	22
56	Cyclic identities for Jacobi elliptic and related functions. <i>Journal of Mathematical Physics</i> , 2003, 44, 1822-1841.	0.5	25
57	Entanglement sharing in one-particle states. <i>Physical Review A</i> , 2003, 67, .	1.0	62
58	Recurrence of fidelity in nearly integrable systems. <i>Physical Review E</i> , 2003, 68, 036216.	0.8	23
59	Testing Statistical Bounds on Entanglement Using Quantum Chaos. <i>Physical Review Letters</i> , 2002, 89, 060402.	2.9	124
60	Entangling power of quantized chaotic systems. <i>Physical Review E</i> , 2001, 64, 036207.	0.8	121
61	Chaos in a well: effects of competing length scales. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2001, 279, 313-320.	0.9	11
62	Barnett-Pegg formalism of angle operators, revivals, and flux lines. <i>Physical Review A</i> , 2000, 62, .	1.0	0
63	Phase space localization of chaotic eigenstates: Violating ergodicity. <i>Physical Review E</i> , 2000, 63, 016209.	0.8	10
64	Exploring phase space localization of chaotic eigenstates via parametric variation. <i>Physical Review E</i> , 2000, 63, 016208.	0.8	22
65	Classical diffusion and quantum level velocities: Systematic deviations from random matrix theory. <i>Physical Review E</i> , 1999, 60, 3992-3999.	0.8	16
66	Chaos and exponentially localized eigenstates in smooth Hamiltonian systems. <i>Physical Review E</i> , 1998, 57, 345-349.	0.8	16
67	Relaxation fluctuations about an equilibrium in quantum chaos. <i>Physical Review E</i> , 1997, 56, 2540-2547.	0.8	1
68	Accuracy of trace formulas. <i>Pramana - Journal of Physics</i> , 1997, 48, 517-535.	0.9	13
69	Local Scaling in Homogeneous Hamiltonian Systems. <i>Physical Review Letters</i> , 1996, 76, 396-399.	2.9	12
70	On the Quantum Baker's Map and Its Unusual Traces. <i>Annals of Physics</i> , 1995, 239, 272-295.	1.0	16
71	On the quantum cat and sawtooth maps Return to generic behaviour. <i>Chaos, Solitons and Fractals</i> , 1995, 5, 1169-1179.	2.5	14
72	On the noncommutativity of quantization and discrete time evolution. <i>Nuclear Physics A</i> , 1994, 572, 37-47.	0.6	3

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73	Relaxation and localization in interacting quantum maps. Journal of Statistical Physics, 1994, 77, 311-344.	0.5	3
74	Semiclassical theory of the sawtooth map. Physics Letters, Section A: General, Atomic and Solid State Physics, 1994, 192, 345-354.	0.9	5
75	The Classical and Quantum Mechanics of Lazy Baker Maps. Annals of Physics, 1993, 226, 350-373.	1.0	16
76	On the quantization of linear maps. Annals of Physics, 1991, 212, 220-234.	1.0	3