

Juan M LÃ³pez

List of Publications by Year in descending order

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74
papers

2,113
citations

361413

20
h-index

233421

45
g-index

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all docs

74
docs citations

74
times ranked

1102
citing authors

#	ARTICLE	IF	CITATIONS
1	Spatio-temporal evolution of perturbations in ensembles initialized by bred, Lyapunov and singular vectors. <i>Tellus, Series A: Dynamic Meteorology and Oceanography</i> , 2022, 62, 10.	1.7	23
2	Melting of crystals of polarization vortices and chiral phase transitions in oxide superlattices. <i>Physical Review B</i> , 2022, 105, .	3.2	5
3	Nonuniversal large-size asymptotics of the Lyapunov exponent in turbulent globally coupled maps. <i>Physical Review E</i> , 2021, 104, 034216.	2.1	4
4	Roughening of the anharmonic elastic interface in correlated random media. <i>Physical Review E</i> , 2021, 104, 044108.	2.1	1
5	The probabilistic backbone of data-driven complex networks: an example in climate. <i>Scientific Reports</i> , 2020, 10, 11484.	3.3	5
6	Efficient harmonic oscillator chain energy harvester driven by colored noise. <i>Scientific Reports</i> , 2020, 10, 14306.	3.3	2
7	Surface super-roughening driven by spatiotemporally correlated noise. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2020, 2020, 033210.	2.3	4
8	Faceted patterns and anomalous surface roughening driven by long-range temporally correlated noise. <i>Physical Review E</i> , 2019, 99, 062139.	2.1	9
9	Spatiotemporal Organization of Correlated Local Activity within Global Avalanches in Slowly Driven Interfaces. <i>Physical Review Letters</i> , 2018, 121, 034101.	7.8	6
10	Thermal rectification in mass-graded next-nearest-neighbor Fermi-Pasta-Ulam lattices. <i>Physical Review E</i> , 2017, 95, 032146.	2.1	15
11	On the origin of multiscaling in stochastic-field models of surface growth. <i>European Physical Journal B</i> , 2016, 89, 1.	1.5	2
12	Diverging Fluctuations of the Lyapunov Exponents. <i>Physical Review Letters</i> , 2016, 117, 034101.	7.8	13
13	Data assimilation by delay-coordinate nudging. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2016, 142, 1290-1299.	2.7	11
14	Synchronizing spatio-temporal chaos with imperfect models: A stochastic surface growth picture. <i>Chaos</i> , 2014, 24, 043115.	2.5	6
15	Intermittency, avalanche statistics, and long-term correlations in a turbulent plasma. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2013, 2013, P04022.	2.3	6
16	The geometric norm improves ensemble forecasting with the breeding method. <i>Quarterly Journal of the Royal Meteorological Society</i> , 2013, 139, 2021-2032.	2.7	5
17	Interplay between social debate and propaganda in an opinion formation model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2013, 392, 278-286.	2.6	7
18	On the angle between the first and second Lyapunov vectors in spatio-temporal chaos. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013, 46, 254014.	2.1	2

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19	Universal scaling of Lyapunov-exponent fluctuations in space-time chaos. <i>Physical Review E</i> , 2013, 87, 062909.	2.1	22
20	Covariant hydrodynamic Lyapunov modes and strong stochasticity threshold in Hamiltonian lattices. <i>Physical Review E</i> , 2012, 85, 026210.	2.1	5
21	Maximizing the Statistical Diversity of an Ensemble of Bred Vectors by Using the Geometric Norm. <i>Journals of the Atmospheric Sciences</i> , 2011, 68, 1507-1512.	1.7	5
22	Logarithmic bred vectors in spatiotemporal chaos: Structure and growth. <i>Physical Review E</i> , 2010, 81, 066204.	2.1	13
23	Activity statistics, avalanche kinetics, and velocity correlations in surface growth. <i>Physical Review E</i> , 2010, 82, 031127.	2.1	12
24	Characteristic Lyapunov vectors in chaotic time-delayed systems. <i>Physical Review E</i> , 2010, 82, 056201.	2.1	13
25	Structure of characteristic Lyapunov vectors in anharmonic Hamiltonian lattices. <i>Physical Review E</i> , 2010, 82, 036205.	2.1	16
26	From Brittle to Ductile Fracture in Disordered Materials. <i>Physical Review Letters</i> , 2010, 105, 155502.	7.8	29
27	Exponential localization of singular vectors in spatiotemporal chaos. <i>Physical Review E</i> , 2009, 79, 036202.	2.1	5
28	Avalanche dynamics in fluid imbibition near the depinning transition. <i>Physical Review E</i> , 2009, 80, 050101.	2.1	18
29	Optimization and Plasticity in Disordered Media. <i>Physical Review Letters</i> , 2009, 103, 225502.	7.8	13
30	Spatial correlations of synchronization errors in extended chaotic systems. <i>Europhysics Letters</i> , 2009, 86, 20008.	2.0	4
31	On the problem of data assimilation by means of synchronization. <i>Journal of Geophysical Research</i> , 2009, 114, .	3.3	14
32	Activity statistics of a forced elastic string in a disordered medium. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2009, 2009, P07009.	2.3	7
33	Dynamics of perturbations in disordered chaotic systems. <i>Physical Review E</i> , 2008, 78, 036202.	2.1	5
34	Energy dissipation statistics in the random fuse model. <i>Physical Review E</i> , 2008, 77, 046114.	2.1	8
35	Structure of characteristic Lyapunov vectors in spatiotemporal chaos. <i>Physical Review E</i> , 2008, 78, 016209.	2.1	57
36	Pseudospectral versus finite-difference schemes in the numerical integration of stochastic models of surface growth. <i>Physical Review E</i> , 2007, 76, 051121.	2.1	25

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37	Localization in disordered media, anomalous roughening, and coarsening dynamics of faceted surfaces. <i>Physical Review E</i> , 2007, 76, 011603.	2.1	14
38	Time-dependent couplings and crossover length scales in nonequilibrium surface roughening. <i>Physical Review E</i> , 2007, 76, 010102.	2.1	14
39	Spatiotemporal structure of Lyapunov vectors in chaotic coupled-map lattices. <i>Physical Review E</i> , 2007, 76, 025202.	2.1	37
40	The role of time scale separation in a nonequilibrium roughening transition. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2007, 374, 289-292.	2.6	3
41	Scaling properties of spatially extended chaotic systems. <i>European Physical Journal: Special Topics</i> , 2007, 143, 13-18.	2.6	0
42	Glassy dynamics, aging and temperature-induced avalanches in interface pinning at finite temperatures. <i>Europhysics Letters</i> , 2006, 76, 554-560.	2.0	10
43	Contrarian-like behavior and system size stochastic resonance in an opinion spreading model. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2006, 371, 108-111.	2.6	16
44	Dynamic scaling of bred vectors in spatially extended chaotic systems. <i>Europhysics Letters</i> , 2006, 76, 767-773.	2.0	12
45	Universal critical behavior of the synchronization transition in delayed chaotic systems. <i>Physical Review E</i> , 2005, 71, 055203.	2.1	9
46	Scaling of Local Slopes, Conservation Laws, and Anomalous Roughening in Surface Growth. <i>Physical Review Letters</i> , 2005, 94, 166103.	7.8	85
47	Predictability, bred vectors, and generation of ensembles in space-time chaotic systems. <i>Physical Review E</i> , 2005, 72, 015201.	2.1	12
48	Spontaneous emergence of contrarian-like behaviour in an opinion spreading model. <i>Europhysics Letters</i> , 2005, 72, 851-857.	2.0	82
49	Scaling properties of growing noninfinitesimal perturbations in space-time chaos. <i>Physical Review E</i> , 2004, 70, 056224.	2.1	20
50	Rare Events and Scale-Invariant Dynamics of Perturbations in Delayed Chaotic Systems. <i>Physical Review Letters</i> , 2004, 92, 204101.	7.8	11
51	Nonequilibrium phase transition in a model for the propagation of innovations among economic agents. <i>Physical Review E</i> , 2003, 68, 066101.	2.1	30
52	Nonequilibrium Phase Transitions in Directed Small-World Networks. <i>Physical Review Letters</i> , 2002, 88, 048701.	7.8	133
53	Generic model of morphological changes in growing colonies of fungi. <i>Physical Review E</i> , 2002, 65, 021903.	2.1	25
54	Bramwelle's Reply. <i>Physical Review Letters</i> , 2002, 89, .	7.8	15

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55	Nonlinear dynamics of current-modulated multitransverse-mode vertical-cavity surface-emitting lasers. , 2002, 4646, 215.		2
56	Nonlinear dynamics of current-modulated vertical-cavity surface-emitting lasers. Optics Communications, 2002, 208, 173-182.	2.1	37
57	Interface depinning in the absence of an external driving force. Physical Review E, 2001, 64, 066109.	2.1	8
58	Bramwellet al.Reply:. Physical Review Letters, 2001, 87, .	7.8	11
59	Universal Fluctuations in Correlated Systems. Physical Review Letters, 2000, 84, 3744-3747.	7.8	225
60	Generic Dynamic Scaling in Kinetic Roughening. Physical Review Letters, 2000, 84, 2199-2202.	7.8	211
61	Comment on "Macroscopic Equation for the Roughness of Growing Interfaces in Quenched Disordered Media" Physical Review Letters, 1999, 82, 1337-1337.	7.8	1
62	Scaling Approach to Calculate Critical Exponents in Anomalous Surface Roughening. Physical Review Letters, 1999, 83, 4594-4597.	7.8	140
63	DYNAMICS OF LOCAL SURFACE FLUCTUATIONS IN GROWTH MODELS WITH POWER-LAW NOISE. Modern Physics Letters B, 1999, 13, 423-429.	1.9	1
64	Anomalous scaling of fracture surfaces. Physical Review E, 1998, 57, 6405-6408.	2.1	113
65	Nonequilibrium Roughening Transition in a Simple Model of Fungal Growth in 1+1 Dimensions. Physical Review Letters, 1998, 81, 1734-1737.	7.8	32
66	Anomalous roughening of wood fractured surfaces. Physical Review E, 1998, 58, 6999-7005.	2.1	86
67	Superroughening versus intrinsic anomalous scaling of surfaces. Physical Review E, 1997, 56, 3993-3998.	2.1	159
68	Interface Dynamics at the Depinning Transition. Journal De Physique, I, 1997, 7, 1191-1200.	1.2	10
69	Power spectrum scaling in anomalous kinetic roughening of surfaces. Physica A: Statistical Mechanics and Its Applications, 1997, 246, 329-347.	2.6	74
70	Lack of self-affinity and anomalous roughening in growth processes. Physical Review E, 1996, 54, R2189-R2192.	2.1	54
71	Anomalous roughness exponent of growing interfaces in a disordered medium. Physical Review E, 1995, 52, R1296-R1298.	2.1	6
72	Analysis of self-averaging properties in the transport of particles through random media. Physical Review E, 1995, 51, R1637-R1640.	2.1	4

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73	Growth of interfaces with strong quenched disorder: Columnar media. Physical Review E, 1995, 52, 6442-6447.	2.1	7
74	Scaling Relations and Exponents in the Growth of Rough Interfaces through Random Media. Europhysics Letters, 1995, 29, 197-202.	2.0	7