Juan M LÃ³pez

List of Publications by Year
in descending order

74 papers	2,113 citations	411340 20 h-index	263392 45 g-index
74 all docs	74 docs citations	74 times ranked	1216 citing authors

#	Article	IF	Citations
1	Spatio-temporal evolution of perturbations in ensembles initialized by bred, Lyapunov and singular vectors. Tellus, Series A: Dynamic Meteorology and Oceanography, 2022, 62, 10.	0.8	23
2	Melting of crystals of polarization vortices and chiral phase transitions in oxide superlattices. Physical Review B, 2022, 105, .	1.1	5
3	Nonuniversal large-size asymptotics of the Lyapunov exponent in turbulent globally coupled maps. Physical Review E, 2021, 104, 034216.	0.8	4
4	Roughening of the anharmonic elastic interface in correlated random media. Physical Review E, 2021, 104, 044108.	0.8	1
5	The probabilistic backbone of data-driven complex networks: an example in climate. Scientific Reports, 2020, 10, 11484.	1.6	5
6	Efficient harmonic oscillator chain energy harvester driven by colored noise. Scientific Reports, 2020, 10, 14306.	1.6	2
7	Surface super-roughening driven by spatiotemporally correlated noise. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 033210.	0.9	4
8	Faceted patterns and anomalous surface roughening driven by long-range temporally correlated noise. Physical Review E, 2019, 99, 062139.	0.8	9
9	Spatiotemporal Organization of Correlated Local Activity within Global Avalanches in Slowly Driven Interfaces. Physical Review Letters, 2018, 121, 034101.	2.9	6
10	Thermal rectification in mass-graded next-nearest-neighbor Fermi-Pasta-Ulam lattices. Physical Review E, 2017, 95, 032146.	0.8	15
11	On the origin of multiscaling in stochastic-field models of surface growth. European Physical Journal B, 2016, 89, 1.	0.6	2
12	Diverging Fluctuations of the Lyapunov Exponents. Physical Review Letters, 2016, 117, 034101.	2.9	13
13	Data assimilation by delay€coordinate nudging. Quarterly Journal of the Royal Meteorological Society, 2016, 142, 1290-1299.	1.0	11
14	Synchronizing spatio-temporal chaos with imperfect models: A stochastic surface growth picture. Chaos, 2014, 24, 043115.	1.0	6
15	Intermittency, avalanche statistics, and long-term correlations in a turbulent plasma. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P04022.	0.9	6
16	The geometric norm improves ensemble forecasting with the breeding method. Quarterly Journal of the Royal Meteorological Society, 2013, 139, 2021-2032.	1.0	5
17	Interplay between social debate and propaganda in an opinion formation model. Physica A: Statistical Mechanics and Its Applications, 2013, 392, 278-286.	1.2	7
18	On the angle between the first and second Lyapunov vectors in spatio-temporal chaos. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 254014.	0.7	2

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19	Universal scaling of Lyapunov-exponent fluctuations in space-time chaos. Physical Review E, 2013, 87, 062909.	0.8	22
20	Covariant hydrodynamic Lyapunov modes and strong stochasticity threshold in Hamiltonian lattices. Physical Review E, 2012, 85, 026210.	0.8	5
21	Maximizing the Statistical Diversity of an Ensemble of Bred Vectors by Using the Geometric Norm. Journals of the Atmospheric Sciences, 2011, 68, 1507-1512.	0.6	5
22	Logarithmic bred vectors in spatiotemporal chaos: Structure and growth. Physical Review E, 2010, 81, 066204.	0.8	13
23	Activity statistics, avalanche kinetics, and velocity correlations in surface growth. Physical Review E, 2010, 82, 031127.	0.8	12
24	Characteristic Lyapunov vectors in chaotic time-delayed systems. Physical Review E, 2010, 82, 056201.	0.8	13
25	Structure of characteristic Lyapunov vectors in anharmonic Hamiltonian lattices. Physical Review E, 2010, 82, 036205.	0.8	16
26	From Brittle to Ductile Fracture in Disordered Materials. Physical Review Letters, 2010, 105, 155502.	2.9	29
27	Exponential localization of singular vectors in spatiotemporal chaos. Physical Review E, 2009, 79, 036202.	0.8	5
28	Avalanche dynamics in fluid imbibition near the depinning transition. Physical Review E, 2009, 80, 050101.	0.8	18
29	Optimization and Plasticity in Disordered Media. Physical Review Letters, 2009, 103, 225502.	2.9	13
30	Spatial correlations of synchronization errors in extended chaotic systems. Europhysics Letters, 2009, 86, 20008.	0.7	4
31	On the problem of data assimilation by means of synchronization. Journal of Geophysical Research, 2009, 114, .	3.3	14
32	Activity statistics of a forced elastic string in a disordered medium. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P07009.	0.9	7
33	Dynamics of perturbations in disordered chaotic systems. Physical Review E, 2008, 78, 036202.	0.8	5
34	Energy dissipation statistics in the random fuse model. Physical Review E, 2008, 77, 046114.	0.8	8
35	Structure of characteristic Lyapunov vectors in spatiotemporal chaos. Physical Review E, 2008, 78, 016209.	0.8	57
36	Pseudospectral versus finite-difference schemes in the numerical integration of stochastic models of surface growth. Physical Review E, 2007, 76, 051121.	0.8	25

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37	Localization in disordered media, anomalous roughening, and coarsening dynamics of faceted surfaces. Physical Review E, 2007, 76, 011603.	0.8	14
38	Time-dependent couplings and crossover length scales in nonequilibrium surface roughening. Physical Review E, 2007, 76, 010102.	0.8	14
39	Spatiotemporal structure of Lyapunov vectors in chaotic coupled-map lattices. Physical Review E, 2007, 76, 025202.	0.8	37
40	The role of time scale separation in a nonequilibrium roughening transition. Physica A: Statistical Mechanics and Its Applications, 2007, 374, 289-292.	1.2	3
41	Scaling properties of spatially extended chaotic systems. European Physical Journal: Special Topics, 2007, 143, 13-18.	1.2	0
42	Glassy dynamics, aging and temperature-induced avalanches in interface pinning at finite temperatures. Europhysics Letters, 2006, 76, 554-560.	0.7	10
43	Contrarian-like behavior and system size stochastic resonance in an opinion spreading model. Physica A: Statistical Mechanics and Its Applications, 2006, 371, 108-111.	1.2	16
44	Dynamic scaling of bred vectors in spatially extended chaotic systems. Europhysics Letters, 2006, 76, 767-773.	0.7	12
45	Universal critical behavior of the synchronization transition in delayed chaotic systems. Physical Review E, 2005, 71, 055203.	0.8	9
46	Scaling of Local Slopes, Conservation Laws, and Anomalous Roughening in Surface Growth. Physical Review Letters, 2005, 94, 166103.	2.9	85
47	Predictability, bred vectors, and generation of ensembles in space-time chaotic systems. Physical Review E, 2005, 72, 015201.	0.8	12
48	Spontaneous emergence of contrarian-like behaviour in an opinion spreading model. Europhysics Letters, 2005, 72, 851-857.	0.7	82
49	Scaling properties of growing noninfinitesimal perturbations in space-time chaos. Physical Review E, 2004, 70, 056224.	0.8	20
50	Rare Events and Scale-Invariant Dynamics of Perturbations in Delayed Chaotic Systems. Physical Review Letters, 2004, 92, 204101.	2.9	11
51	Nonequilibrium phase transition in a model for the propagation of innovations among economic agents. Physical Review E, 2003, 68, 066101.	0.8	30
52	Nonequilibrium Phase Transitions in Directed Small-World Networks. Physical Review Letters, 2002, 88, 048701.	2.9	133
53	Generic model of morphological changes in growing colonies of fungi. Physical Review E, 2002, 65, 021903.	0.8	25
54	BramwelletÂal.Reply:. Physical Review Letters, 2002, 89, .	2.9	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.	1.0	37
57	Interface depinning in the absence of an external driving force. Physical Review E, 2001, 64, 066109.	0.8	8
58	Bramwellet al.Reply:. Physical Review Letters, 2001, 87, .	2.9	11
59	Universal Fluctuations in Correlated Systems. Physical Review Letters, 2000, 84, 3744-3747.	2.9	225
60	Generic Dynamic Scaling in Kinetic Roughening. Physical Review Letters, 2000, 84, 2199-2202.	2.9	211
61	Comment on â€œMacroscopic Equation for the Roughness of Growing Interfaces in Quenched Disordered Mediaâ€. Physical Review Letters, 1999, 82, 1337-1337.	2.9	1
62	Scaling Approach to Calculate Critical Exponents in Anomalous Surface Roughening. Physical Review Letters, 1999, 83, 4594-4597.	2.9	140
63	DYNAMICS OF LOCAL SURFACE FLUCTUATIONS IN GROWTH MODELS WITH POWER-LAW NOISE. Modern Physics Letters B, 1999, 13, 423-429.	1.0	1
64	Anomalous scaling of fracture surfaces. Physical Review E, 1998, 57, 6405-6408.	0.8	113
65	Nonequilibrium Roughening Transition in a Simple Model of Fungal Growth in1+1Dimensions. Physical Review Letters, 1998, 81, 1734-1737.	2.9	32
66	Anomalous roughening of wood fractured surfaces. Physical Review E, 1998, 58, 6999-7005.	0.8	86
67	Superroughening versus intrinsic anomalous scaling of surfaces. Physical Review E, 1997, 56, 3993-3998.	0.8	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.	1.2	74
70	Lack of self-affinity and anomalous roughening in growth processes. Physical Review E, 1996, 54, R2189-R2192.	0.8	54
71	Anomalous roughness exponent of growing interfaces in a disordered medium. Physical Review E, 1995, 52, R1296-R1298.	0.8	6
72	Analysis of self-averaging properties in the transport of particles through random media. Physical Review E, 1995, 51, R1637-R1640.	0.8	4

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73	Growth of interfaces with strong quenched disorder: Columnar media. Physical Review E, 1995, 52, 6442-6447.	0.8	7
74	Scaling Relations and Exponents in the Growth of Rough Interfaces through Random Media. Europhysics Letters, 1995, 29, 197-202.	0.7	7