Jaume Masoliver

List of Publications by Year
in descending order

135 papers	2,991 citations	32 h-index 136950	48 g-index 206112
146 all docs	146 docs citations	146 times ranked	1175 citing authors

#	Article	IF	Citations
1	Continuous-time random-walk model for financial distributions. Physical Review E, 2003, 67, 021112.	2.1	149
2	Bistability driven by Gaussian colored noise: First-passage times. Physical Review A, 1987, 35, 3086-3094.	2.5	129
3	Generalized Langevin equations: Anomalous diffusion and probability distributions. Physical Review E, 1996, 53, 5872-5881.	2.1	98
4	A continuous-time generalization of the persistent random walk. Physica A: Statistical Mechanics and Its Applications, 1989, 157, 891-898.	2.6	87
5	The continuous time random walk, still trendy: fifty-year history, state of art and outlook. European Physical Journal B, 2017, 90, 1.	1.5	84
6	Properties of resonant activation phenomena. Physical Review E, 1998, 57, 3990-4002.	2.1	80
7	Telegraphic processes with stochastic resetting. Physical Review E, 2019, 99, 012121.	2.1	78
8	Finite-velocity diffusion. European Journal of Physics, 1996, 17, 190-196.	0.6	71
9	Some two and three-dimensional persistent random walks. Physica A: Statistical Mechanics and Its Applications, 1993, 193, 469-482.	2.6	70
10	First-passage times for non-Markovian processes: Correlated impacts on bound processes. Physical Review A, 1986, 34, 2351-2363.	2.5	59
11	Continuous time persistent random walk: a review and some generalizations. European Physical Journal B, 2017, 90, 1.	1.5	59
12	When the telegrapher's equation furnishes a better approximation to the transport equation than the diffusion approximation. Physical Review E, 1997, 55, 7771-7774.	2.1	58
13	Solution to the telegrapher's equation in the presence of reflecting and partly reflecting boundaries. Physical Review E, 1993, 48, 939-944.	2.1	56
14	The continuous time random walk formalism in financial markets. Journal of Economic Behavior and Organization, 2006, 61, 577-598.	2.0	56
15	Solutions of the telegrapher's equation in the presence of traps. Physical Review A, 1992, 45, 2222-2227.	2.5	53
16	Multiple time scales and the exponential Ornstein–Uhlenbeck stochastic volatility model. Quantitative Finance, 2006, 6, 423-433.	1.7	52
17	Multiple time scales in volatility and leverage correlations: a stochastic volatility model. Applied Mathematical Finance, 2004, 11, 27-50.	1.2	48
18	First-passage times for non-Markovian processes: Correlated impacts on a free process. Physical Review A, 1986, 34, 1481-1494.	2.5	46

#	Article	IF	Citations
19	First-passage times for non-Markovian processes: Shot noise. Physical Review A, 1987, 35, 3918-3928.	2.5	46
20	Exact Solution to the Mean Exit Time Problem for Free Inertial Processes Driven by Gaussian White Noise. Physical Review Letters, 1995, 75, 189-192.	7.8	46
21	A CORRELATED STOCHASTIC VOLATILITY MODEL MEASURING LEVERAGE AND OTHER STYLIZED FACTS. International Journal of Theoretical and Applied Finance, 2002, 05, 541-562.	0.5	44
22	Random diffusion and leverage effect in financial markets. Physical Review E, 2003, 67, 037102.	2.1	44
23	First-passage and risk evaluation under stochastic volatility. Physical Review E, 2009, 80, 016108.	2.1	44
24	First-passage times for non-Markovian processes. Physical Review A, 1986, 33, 2177-2180.	2.5	43
25	Telegrapher's equations with variable propagation speeds. Physical Review E, 1994, 49, 3852-3854.	2.1	41
26	Second-order processes driven by dichotomous noise. Physical Review A, 1992, 45, 706-713.	2.5	37
27	Escape problem under stochastic volatility: The Heston model. Physical Review E, 2008, 78, 056104.	2.1	37
28	Anomalous diffusion under stochastic resettings: A general approach. Physical Review E, 2019, 100, 042103.	2.1	37
29	First-passage times for non-Markovian processes: Multivalued noise. Physical Review A, 1987, 36, 1435-1439.	2.5	36
30	Harmonic oscillators driven by colored noise: Crossovers, resonances, and spectra. Physical Review E, 1993, 48, 4309-4319.	2.1	36
31	Scaling and data collapse for the mean exit time of asset prices. Physical Review E, 2005, 72, 056101.	2.1	36
32	Generalization of the persistent random walk to dimensions greater than 1. Physical Review E, 1998, 58, 6992-6998.	2.1	34
33	The continuous-time random walk description of photon motion in an isotropic medium. Optics Communications, 1998, 146, 268-276.	2.1	33
34	A comparison between several correlated stochastic volatility models. Physica A: Statistical Mechanics and Its Applications, 2004, 344, 134-137.	2.6	32
35	Model for interevent times with long tails and multifractality in human communications: An application to financial trading. Physical Review E, 2008, 78, 036108.	2.1	32
36	Fractional telegrapher's equation from fractional persistent random walks. Physical Review E, 2016, 93, 052107.	2.1	32

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37	Linear oscillators driven by Gaussian colored noise: crossovers and probability distributions. Physica A: Statistical Mechanics and Its Applications, 1996, 231, 615-630.	2.6	30
38	Extreme times in financial markets. Physical Review E, 2005, 71, 056130.	2.1	29
39	Nonindependent continuous-time random walks. Physical Review E, 2007, 76, 061115.	2.1	29
40	First passage times for a generalized telegrapher's equation. Physica A: Statistical Mechanics and Its Applications, 1992, 183, 537-548.	2.6	27
41	Exact solution to the exit-time problem for an undamped free particle driven by Gaussian white noise. Physical Review E, 1996, 53, 2243-2256.	2.1	27
42	Persistent random walk model for transport through thin slabs. Physical Review E, 1999, 59, 6517-6526.	2.1	27
43	First-passage and escape problems in the Feller process. Physical Review E, 2012, 86, 041116.	2.1	26
44	Second-order dichotomous processes: Damped free motion, critical behavior, and anomalous superdiffusion. Physical Review E, 1993, 48, 121-135.	2.1	25
45	Free inertial processes driven by Gaussian noise: Probability distributions, anomalous diffusion, and fractal behavior. Physical Review E, 1995, 51, 2987-2995.	2.1	24
46	Bistability driven by dichotomous noise. Physical Review A, 1991, 44, 4866-4875.	2.5	23
47	A dynamical model describing stock market price distributions. Physica A: Statistical Mechanics and Its Applications, 2000, 283, 559-567.	2.6	23
48	Black–Scholes option pricing within Itô and Stratonovich conventions. Physica A: Statistical Mechanics and Its Applications, 2000, 278, 260-274.	2.6	23
49	Option pricing under stochastic volatility: the exponential Ornstein–Uhlenbeck model. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P06010.	2.3	22
50	The continuum limit of a two-dimensional persistent random walk. Physica A: Statistical Mechanics and Its Applications, 1992, 182, 593-598.	2.6	20
51	Activity autocorrelation in financial markets. European Physical Journal B, 2004, 38, 671-677.	1.5	20
52	Statistics of the depth probed by cw measurements of photons in a turbid medium. Physical Review E, 1998, 58, 6431-6439.	2.1	19
53	Entropy of the Nordic electricity market: anomalous scaling, spikes, and mean-reversion. Journal of Statistical Mechanics: Theory and Experiment, 2006, 2006, P11011-P11011.	2.3	19
54	Higher-order phase transitions on financial markets. European Physical Journal B, 2010, 76, 513-527.	1.5	19

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55	Kinetics of a finite one-dimensional mixture of hard rods with different masses. Journal of Statistical Physics, 1983, 31, 565-575.	1.2	18
56	On the maximum displacement of a one-dimensional diffusion process described by the telegrapher's equation. Physica A: Statistical Mechanics and Its Applications, 1993, 195, 93-100.	2.6	17
57	The CTRW in finance: Direct and inverse problems with some generalizations and extensions. Physica A: Statistical Mechanics and Its Applications, 2007, 379, 151-167.	2.6	17
58	Long-time tails in the velocity autocorrelation function of hard-rod binary mixtures. Physical Review Letters, 1985, 54, 731-734.	7.8	16
59	Volatility: A hidden Markov process in financial time series. Physical Review E, 2007, 76, 056105.	2.1	16
60	Extreme times for volatility processes. Physical Review E, 2007, 75, 046110.	2.1	15
61	Mean exit times for free inertial stochastic processes. Physical Review E, 1994, 50, 1985-1993.	2.1	14
62	Transport Equations in Chromatography with a Finite Speed of Signal Propagation. Separation Science and Technology, 1991, 26, 279-289.	2.5	13
63	Bistability driven by white shot noise. Physical Review E, 1993, 47, 1633-1641.	2.1	13
64	From classical to quantum mechanics through optics. European Journal of Physics, 2010, 31, 171-192.	0.6	13
65	Scaling properties and universality of first-passage-time probabilities in financial markets. Physical Review E, 2011, 84, 066110.	2.1	13
66	Telegraphic Transport Processes and Their Fractional Generalization: A Review and Some Extensions. Entropy, 2021, 23, 364.	2.2	13
67	Mean first-passage times for systems driven by gamma and McFadden dichotomous noise. Physical Review E, 1993, 47, 189-201.	2.1	12
68	The effect of non-ideal market conditions on option pricing. Physica A: Statistical Mechanics and Its Applications, 2002, 308, 420-442.	2.6	12
69	Nonstationary Feller process with time-varying coefficients. Physical Review E, 2016, 93, 012122.	2.1	12
70	On a class of exact solutions to the Fokker–Planck equations. Journal of Mathematical Physics, 1982, 23, 1155-1158.	1.1	11
71	Coherent stochastic resonance. Physical Review E, 1995, 51, 4021-4026.	2.1	11
72	Fat tails and colored noise in financial derivatives. Physica A: Statistical Mechanics and Its Applications, 2002, 314, 736-742.	2.6	11

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73	Option pricing and perfect hedging on correlated stocks. Physica A: Statistical Mechanics and Its Applications, 2003, 330, 622-652.	2.6	11
74	Mean exit time and survival probability within the CTRW formalism. European Physical Journal B, 2007, 57, 181-185.	1.5	11
75	Three-dimensional telegrapher's equation and its fractional generalization. Physical Review E, 2017, 96, 022101.	2.1	11
76	Bistability driven by dichotomous noise: A comment. Physical Review A, 1992, 45, 6092-6094.	2.5	10
77	A diffusion model incorporating anisotropic properties. Physica A: Statistical Mechanics and Its Applications, 1995, 218, 229-236.	2.6	10
78	First passage time problems for non-Markovian processes. , 1989, , 110-160.		10
79	General transformations from multiplicative noise to additive noise. Physics Letters, Section A: General, Atomic and Solid State Physics, 1984, 103, 366-368.	2.1	9
80	Diffusion Entropy technique applied to the study of the market activity. Physica A: Statistical Mechanics and Its Applications, 2005, 355, 131-137.	2.6	9
81	Value of the future: Discounting in random environments. Physical Review E, 2015, 91, 052816.	2.1	9
82	Fractal dimension for Gaussian colored processes. Physical Review A, 1990, 42, 5011-5014.	2.5	8
83	Nearest trap-particle distances in a one-dimensional CTRW model with a mobile trap. Physica A: Statistical Mechanics and Its Applications, 1991, 174, 209-213.	2.6	8
84	Mean first-passage times for systems driven by the coin-toss square wave. Physical Review E, 1993, 48, 951-963.	2.1	8
85	Integrability and chaos: the classical uncertainty. European Journal of Physics, 2011, 32, 431-458.	0.6	8
86	Extreme values and the level-crossing problem: An application to the Feller process. Physical Review E, 2014, 89, 042106.	2.1	8
87	Two-dimensional telegraphic processes and their fractional generalizations. Physical Review E, 2020, 101, 012137.	2.1	8
88	A numerical study of one-dimensional systems: kinetics and equilibrium states. Journal of Physics C: Solid State Physics, 1985, 18, 4691-4701.	1.5	7
89	First passage time statistics for some stochastic processes with superimposed shot noise. Physica A: Statistical Mechanics and Its Applications, 1988, 149, 395-405.	2.6	7
90	First-passage-time statistics for diffusion processes with an external random force. Physical Review E, 1996, 53, 3240-3245.	2.1	7

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91	Mean first-passage times for non-Markovian continuous noise. Physical Review A, 1992, 45, 2256-2262.	2.5	6
92	Statistics of dwell times in a reaction with randomly fluctuating rates. Physica A: Statistical Mechanics and Its Applications, 2001, 296, 75-82.	2.6	6
93	Multiple Time Scales in Volatility and Leverage Correlations: An Stochastic Volatility Model. SSRN Electronic Journal, 2003, , .	0.4	6
94	Conditional dynamics driving financial markets. European Physical Journal B, 2004, 40, 347-352.	1.5	6
95	The Level-Crossing Problem: First-Passage, Escape and Extremes. Fluctuation and Noise Letters, 2014, 13, 1430001.	1.5	6
96	Geometrical derivation of the intrinsic Fokker-Planck equation and its stationary distribution. Journal of Statistical Physics, 1987, 46, 233-248.	1.2	5
97	Isotropization Length for Random Walk Models of Photon Migration in Turbid Media. Journal of Modern Optics, 1995, 42, 1567-1574.	1.3	5
98	Statistical analysis and stochastic interest rate modeling for valuing the future with implications in climate change mitigation. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 043210.	2.3	5
99	Discounting the Distant Future. SSRN Electronic Journal, 0, , .	0.4	5
100	The asymptotic form of the probability density of sojourn times in randomly changing multistate systems. Physica A: Statistical Mechanics and Its Applications, 2000, 284, 13-22.	2.6	4
101	Continued fraction solution for the radiative transfer equation in three dimensions. Physical Review E, 2000, 61, 6248-6254.	2.1	4
102	Integrated random processes exhibiting long tails, finite moments, and power-law spectra. Physical Review E, 2001, 64, 011110.	2.1	4
103	Jump-Diffusion Models for Valuing the Future: Discounting under Extreme Situations. Mathematics, 2021, 9, 1589.	2.2	4
104	First-passage-time noninteger moments for some diffusion and dichotomous processes. Physical Review A, 1990, 41, 5357-5361.	2.5	3
105	Isotropization time for non-Markovian CTRWs. Physica A: Statistical Mechanics and Its Applications, 1996, 230, 149-155.	2.6	3
106	Resolution in Time of Two Electrophoretic Peaks. Separation Science and Technology, 1996, 31, 319-326.	2.5	3
107	The CTRW in Finance: Direct and Inverse Problems. SSRN Electronic Journal, 2003, , .	0.4	3
108	Continuous Time Random Walks with memory and financial distributions. European Physical Journal B, 2017, 90, 1.	1.5	3

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109	Valuing the Future and Discounting in Random Environments: A Review. Entropy, 2022, 24, 496.	2.2	3
110	Exact solutions to some Fokker Planck equation with non linear drift. European Physical Journal B, 1982, 47, 243-249.	1.5	2
111	Some first passage time problems for shot noise processes. Journal of Statistical Physics, 1988, 50, 377-382.	1.2	2
112	Brownian motion of multidimensional systems in nonpotential velocity-dependent fields of force. Physical Review A, 1990, 41, 734-738.	2.5	2
113	Reply to 'Comment on 'Solutions of the telegrapher's equation in the presence of traps' ''. Physical Review A, 1992, 46, 5298-5298.	2.5	2
114	A discrete formulation of the theory of sojourn times in a two-state system. Physica A: Statistical Mechanics and Its Applications, 2001, 289, 307-320.	2.6	2
115	Return or stock price differences. Physica A: Statistical Mechanics and Its Applications, 2002, 316, 539-560.	2.6	2
116	First-Passage and Extremes in Socio-Economic Systems. , 2014, , 477-501.		2
117	Exact temporal evolution for some nonlinear diffusion processes. Journal of Mathematical Physics, 1985, 26, 522-527.	1.1	1
118	Absorbing boundary conditions for inertial random processes. Physical Review E, 1996, 54, 6966-6968.	2.1	1
119	S. Gianfausto, C. De Michele, N.T. Kottegoda, R. Renzo: Extremes in Nature: An Approach Using Copulas. Journal of Statistical Physics, 2009, 134, 425-425.	1.2	1
120	Publisher's Note: First-passage and escape problems in the Feller process [Phys. Rev. E86, 041116 (2012)]. Physical Review E, 2012, 86, .	2.1	1
121	Editorial for the topical issue on the Continuous Time Random Walk. European Physical Journal B, 2018, 91, 1.	1.5	1
122	The value of the distant future: the process of discount in random environments. Estudios De Economia Aplicada (discontinued), 2019, 37, 125-149.	0.5	1
123	On the asymmetry of a random walk in the presence of a field. Journal of Statistical Physics, 1990, 58, 643-652.	1.2	0
124	Multiple Time Scales and the Exponential Ornstein-Uhlenbeck Stochastic Volatility Model. SSRN Electronic Journal, 2005, , .	0.4	0
125	Melvin Lax, Wei Cai, Min Xu: Random Processes in Physics and Finance. Journal of Statistical Physics, 2008, 130, 821-821.	1.2	0
126	The Escape Problem Under Stochastic Volatility: The Heston Model. SSRN Electronic Journal, 0, , .	0.4	0

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127	A Model for Interevent Times with Long Tails and Multifractality in Human Communications: An Application to Financial Trading. SSRN Electronic Journal, 0, , .	0.4	0
128	Floyd B. Hanson: Applied Stochastic Processes andÂControl forÂJump-Diffusions. Journal of Statistical Physics, 2009, 134, 207-207.	1.2	0
129	Option Pricing and Hedging on Correlated Stocks. SSRN Electronic Journal, 0, , .	0.4	0
130	Scaling and Data Collapse for the Mean Exit Time of Asset Prices. SSRN Electronic Journal, 0, , .	0.4	0
131	Mean Exit Time and Survival Probability within the CTRW Formalism. SSRN Electronic Journal, 0, , .	0.4	0
132	Non-Independent Continuous Time Random Walks. SSRN Electronic Journal, 0, , .	0.4	0
133	Extreme Times for Volatility Processes. SSRN Electronic Journal, 0, , .	0.4	0
134	Volatility: A Hidden Markov Process in Financial Time Series. SSRN Electronic Journal, 0, , .	0.4	0
135	Uncertain Growth and the Value of the Future. SSRN Electronic Journal, 0, , .	0.4	0