

Petr Chvosta

List of Publications by Year in descending order

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55
papers

415
citations

759190

12
h-index

839512

18
g-index

55
all docs

55
docs citations

55
times ranked

255
citing authors

#	ARTICLE	IF	CITATIONS
1	Work distribution in a time-dependent logarithmic-harmonic potential: exact results and asymptotic analysis. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013, 46, 075002.	2.1	32
2	Resonant activation phenomenon for non-Markovian potential-fluctuation processes. <i>Physical Review E</i> , 2000, 63, .	2.1	24
3	Transport coefficients for a confined Brownian ratchet operating between two heat reservoirs. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2016, 2016, 093202.	2.3	24
4	Thermal Ratchet Effect in Confining Geometries. <i>Entropy</i> , 2017, 19, 119.	2.2	23
5	Exact analysis of work fluctuations in two-level systems. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2007, 2007, P09019-P09019.	2.3	21
6	Theory of compositionally graded ferroelectrics and pyroelectricity. <i>Applied Physics Letters</i> , 2005, 86, 221922.	3.3	19
7	Energetics and performance of a microscopic heat engine based on exact calculations of work and heat distributions. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2010, 2010, P03002.	2.3	18
8	Attempt time Monte Carlo: An alternative for simulation of stochastic jump processes with time-dependent transition rates. <i>Europhysics Letters</i> , 2011, 93, 40003.	2.0	18
9	Single-file diffusion of externally driven particles. <i>Physical Review E</i> , 2011, 83, 020106.	2.1	18
10	Dynamics under the influence of semi-Markov noise. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1999, 268, 103-120.	2.6	17
11	Analytic study of a model of diffusion on a random comblike structure. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1994, 203, 533-565.	2.6	15
12	Probability distribution of work done on a two-level system during a nonequilibrium isothermal process. <i>Physical Review E</i> , 2007, 75, 041124.	2.1	12
13	Survival of interacting Brownian particles in crowded one-dimensional environment. <i>Journal of Chemical Physics</i> , 2012, 136, 064114.	3.0	12
14	Analysis of stochastic resonances. <i>Physical Review E</i> , 2003, 68, 066109.	2.1	11
15	Diffusion in the time-dependent double-well potential. <i>European Physical Journal D</i> , 2006, 56, 125-139.	0.4	11
16	Tracer dynamics in a single-file system with absorbing boundary. <i>Physical Review E</i> , 2014, 89, 022132.	2.1	10
17	Sedimentation of particles acted upon by a vertical, time-oscillating force. <i>New Journal of Physics</i> , 2007, 9, 2-2.	2.9	9
18	Exact solution of a stochastic dimer problem with single-site energy modulation. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1991, 178, 168-194.	2.6	8

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19	Time-resolved study of energy transport in semi-infinite chain with one sink: Coherent versus incoherent description of trapping process. <i>European Physical Journal B</i> , 1991, 85, 227-237.	1.5	8
20	Generalised master equation: dissipative dynamics of the double-well system. <i>Journal of Physics A</i> , 1989, 22, 3927-3943.	1.6	7
21	Diffusion in a potential with a time-dependent discontinuity. <i>Journal of Physics A</i> , 2003, 36, 8753-8758.	1.6	7
22	Asymptotics of work distribution for a Brownian particle in a time-dependent anharmonic potential. <i>Physica Scripta</i> , 2015, T165, 014024.	2.5	7
23	Random-Random Walks: Stability of Dynamical Phases Against Exponential Correlations in a Quenched Directed Model. <i>Europhysics Letters</i> , 1992, 19, 347-353.	2.0	6
24	Kinetics and energetics of reflected diffusion process with time-dependent and space-homogeneous force. <i>New Journal of Physics</i> , 2005, 7, 190-190.	2.9	6
25	Thermodynamics of two-stroke engine based on periodically driven two-level system. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2010, 42, 472-476.	2.7	6
26	Statistics of work performed by optical tweezers with general time-variation of their stiffness. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2020, 53, 275001.	2.1	6
27	Directed random walk with spatially correlated random transfer rates. <i>Physical Review E</i> , 1993, 47, 1610-1617.	2.1	5
28	Non-Markov noise in barrier-fluctuation model. <i>Journal of Physics A</i> , 1997, 30, L307-L312.	1.6	5
29	Subband properties of the strong coupling sâ€”d model from the lowest six momenta. <i>Journal of Magnetism and Magnetic Materials</i> , 1979, 14, 87-93.	2.3	4
30	Path-summation approach to the dynamics of radiative phenomena. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1990, 166, 361-386.	2.6	4
31	Stochastic Model Description of Single Molecule Spectroscopy. <i>Molecular Crystals and Liquid Crystals</i> , 1996, 283, 209-214.	0.3	4
32	Dynamics and energetics for a molecular zipper model under external driving. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2012, 2012, P11009.	2.3	4
33	On asymptotic behavior of work distributions for driven Brownian motion. <i>European Physical Journal B</i> , 2015, 88, 1.	1.5	4
34	Electronic Structure of the Ferromagnetic Semiconductor sâ€”d Model from the Lowest Six Momenta. <i>Physica Status Solidi (B): Basic Research</i> , 1980, 97, 221-228.	1.5	3
35	Random-random walk on an asymmetric chain with a trapping attractive center. <i>Journal of Statistical Physics</i> , 1992, 69, 17-34.	1.2	3
36	Spectral properties of linear chain with one-point dynamical disorder. <i>European Physical Journal B</i> , 1992, 86, 419-431.	1.5	3

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37	Diffusion on a random comb: Distribution function of the survival probability. Journal of Statistical Physics, 1995, 78, 1403-1428.	1.2	3
38	Glass transition in a simple stochastic model with back-reaction. Physical Review E, 2004, 69, 041502.	2.1	3
39	Dissipative dynamics of a harmonic oscillator with environmentally caused frequency modulation. Journal of Physics B: Atomic, Molecular and Optical Physics, 1988, 21, 3155-3165.	1.5	2
40	On the theory of single molecule spectroscopy in condensed matter. Journal of Luminescence, 1997, 72-74, 1015-1016.	3.1	2
41	Boundary problems for diffusion in a fluctuating potential. Physica A: Statistical Mechanics and Its Applications, 1998, 255, 332-346.	2.6	2
42	Generalized Master Equations and Boltzmann-like transport in solids. European Physical Journal D, 1989, 39, 251-260.	0.4	1
43	On the asymptotic-time symmetry breaking in the symmetric spin-boson model. European Physical Journal D, 1990, 40, 585-591.	0.4	1
44	Dynamics of excitation in systems with a randomly modulated decay channel. Physica A: Statistical Mechanics and Its Applications, 1992, 184, 143-168.	2.6	1
45	Spectral properties of systems with semi-Markov fluctuations. Journal of Luminescence, 1997, 72-74, 918-920.	3.1	1
46	One-Dimensional Diffusion in a Semiinfinite Poisson Random Force. Journal of Statistical Physics, 1999, 97, 323-349.	1.2	1
47	Langevin equation with back-reaction. Journal of Physics A, 2002, 35, L277-L282.	1.6	1
48	Diffusion process with two reflecting barriers in a time-dependent potential. Physical Review E, 2007, 76, 011125.	2.1	1
49	Unfolding kinetics of periodic DNA hairpins. Journal of Physics Condensed Matter, 2014, 26, 205102.	1.8	1
50	Collective particle transport in a peristaltic ratchet system. Journal of Physics: Conference Series, 2014, 490, 012184.	0.4	1
51	Mori approach to thermal conductivity in disturbed one-dimensional phonon systems. Physica B: Condensed Matter, 1991, 168, 291-305.	2.7	0
52	Solution of the generalized master equation for an externally driven and environmentally damped two-level system. European Physical Journal B, 1991, 82, 143-152.	1.5	0
53	Incoherent transfer in restricted geometries and moving potentials. Journal of Luminescence, 1998, 76-77, 399-403.	3.1	0
54	Exact analysis of stochastic resonance and directed transport in potential with time-dependent discontinuity. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 29, 426-434.	2.7	0

#	ARTICLE	IF	CITATIONS
55	Absorbed driven diffusion can provide positive heat and work output. Journal of Physics A: Mathematical and Theoretical, 0, , .	2.1	0