Petr Chvosta

List of Publications by Year in descending order

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55 papers	415 citations	858243 12 h-index	939365 18 g-index
55 all docs	55 docs citations	55 times ranked	282 citing authors

#	Article	IF	Citations
1	Statistics of work performed by optical tweezers with general time-variation of their stiffness. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 275001.	0.7	6
2	Thermal Ratchet Effect in Confining Geometries. Entropy, 2017, 19, 119.	1.1	23
3	Transport coefficients for a confined Brownian ratchet operating between two heat reservoirs. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 093202.	0.9	24
4	Asymptotics of work distribution for a Brownian particle in a time-dependent anharmonic potential. Physica Scripta, 2015, T165, 014024.	1.2	7
5	On asymptotic behavior of work distributions for driven Brownian motion. European Physical Journal B, 2015, 88, 1.	0.6	4
6	Unfolding kinetics of periodic DNA hairpins. Journal of Physics Condensed Matter, 2014, 26, 205102.	0.7	1
7	Tracer dynamics in a single-file system with absorbing boundary. Physical Review E, 2014, 89, 022132.	0.8	10
8	Collective particle transport in a peristaltic ratchet system. Journal of Physics: Conference Series, 2014, 490, 012184.	0.3	1
9	Work distribution in a time-dependent logarithmicâ€“harmonic potential: exact results and asymptotic analysis. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 075002.	0.7	32
10	Survival of interacting Brownian particles in crowded one-dimensional environment. Journal of Chemical Physics, 2012, 136, 064114.	1.2	12
11	Dynamics and energetics for a molecular zipper model under external driving. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P11009.	0.9	4
12	Attempt time Monte Carlo: An alternative for simulation of stochastic jump processes with time-dependent transition rates. Europhysics Letters, 2011, 93, 40003.	0.7	18
13	Single-file diffusion of externally driven particles. Physical Review E, 2011, 83, 020106.	0.8	18
14	Thermodynamics of two-stroke engine based on periodically driven two-level system. Physica E: Low-Dimensional Systems and Nanostructures, 2010, 42, 472-476.	1.3	6
15	Energetics and performance of a microscopic heat engine based on exact calculations of work and heat distributions. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P03002.	0.9	18
16	Sedimentation of particles acted upon by a vertical, time-oscillating force. New Journal of Physics, 2007, 9, 2-2.	1.2	9
17	Exact analysis of work fluctuations in two-level systems. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P09019-P09019.	0.9	21
18	Probability distribution of work done on a two-level system during a nonequilibrium isothermal process. Physical Review E, 2007, 75, 041124.	0.8	12

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19	Diffusion process with two reflecting barriers in a time-dependent potential. Physical Review E, 2007, 76, 011125.	0.8	1
20	Diffusion in the time-dependent double-well potential. European Physical Journal D, 2006, 56, 125-139.	0.4	11
21	Kinetics and energetics of reflected diffusion process with time-dependent and space-homogeneous force. New Journal of Physics, 2005, 7, 190-190.	1.2	6
22	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.	1.3	0
23	Theory of compositionally graded ferroelectrics and pyroelectricity. Applied Physics Letters, 2005, 86, 221922.	1.5	19
24	Glass transition in a simple stochastic model with back-reaction. Physical Review E, 2004, 69, 041502.	0.8	3
25	Analysis of stochastic resonances. Physical Review E, 2003, 68, 066109.	0.8	11
26	Diffusion in a potential with a time-dependent discontinuity. Journal of Physics A, 2003, 36, 8753-8758.	1.6	7
27	Langevin equation with back-reaction. Journal of Physics A, 2002, 35, L277-L282.	1.6	1
28	Resonant activation phenomenon for non-Markovian potential-fluctuation processes. Physical Review E, 2000, 63, .	0.8	24
29	Dynamics under the influence of semi-Markov noise. Physica A: Statistical Mechanics and Its Applications, 1999, 268, 103-120.	1.2	17
30	One-Dimensional Diffusion in a Semiinfinite Poisson Random Force. Journal of Statistical Physics, 1999, 97, 323-349.	0.5	1
31	Incoherent transfer in restricted geometries and moving potentials. Journal of Luminescence, 1998, 76-77, 399-403.	1.5	0
32	Boundary problems for diffusion in a fluctuating potential. Physica A: Statistical Mechanics and Its Applications, 1998, 255, 332-346.	1.2	2
33	Non-Markov noise in barrier-fluctuation model. Journal of Physics A, 1997, 30, L307-L312.	1.6	5
34	Spectral properties of systems with semi-Markov fluctuations. Journal of Luminescence, 1997, 72-74, 918-920.	1.5	1
35	On the theory of single molecule spectroscopy in condensed matter. Journal of Luminescence, 1997, 72-74, 1015-1016.	1.5	2
36	Stochastic Model Description of Single Molecule Spectroscopy. Molecular Crystals and Liquid Crystals, 1996, 283, 209-214.	0.3	4

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37	Diffusion on a random comb: Distribution function of the survival probability. Journal of Statistical Physics, 1995, 78, 1403-1428.	0.5	3
38	Analytic study of a model of diffusion on a random comblike structure. Physica A: Statistical Mechanics and Its Applications, 1994, 203, 533-565.	1.2	15
39	Directed random walk with spatially correlated random transfer rates. Physical Review E, 1993, 47, 1610-1617.	0.8	5
40	Random-Random Walks: Stability of Dynamical Phases Against Exponential Correlations in a Quenched Directed Model. Europhysics Letters, 1992, 19, 347-353.	0.7	6
41	Random-random walk on an asymmetric chain with a trapping attractive center. Journal of Statistical Physics, 1992, 69, 17-34.	0.5	3
42	Dynamics of excitation in systems with a randomly modulated decay channel. Physica A: Statistical Mechanics and Its Applications, 1992, 184, 143-168.	1.2	1
43	Spectral properties of linear chain with one-point dynamical disorder. European Physical Journal B, 1992, 86, 419-431.	0.6	3
44	Exact solution of a stochastic dimer problem with single-site energy modulation. Physica A: Statistical Mechanics and Its Applications, 1991, 178, 168-194.	1.2	8
45	Mori approach to thermal conductivity in disturbed one-dimensional phonon systems. Physica B: Condensed Matter, 1991, 168, 291-305.	1.3	0
46	Time-resolved study of energy transport in semi-infinite chain with one sink: Coherent versus incoherent description of trapping process. European Physical Journal B, 1991, 85, 227-237.	0.6	8
47	Solution of the generalized master equation for an externally driven and environmentally damped two-level system. European Physical Journal B, 1991, 82, 143-152.	0.6	0
48	On the asymptotic-time symmetry breaking in the symmetric spin-boson model. European Physical Journal D, 1990, 40, 585-591.	0.4	1
49	Path-summation approach to the dynamics of radiative phenomena. Physica A: Statistical Mechanics and Its Applications, 1990, 166, 361-386.	1.2	4
50	Generalised master equation: dissipative dynamics of the double-well system. Journal of Physics A, 1989, 22, 3927-3943.	1.6	7
51	Generalized Master Equations and Boltzmann-like transport in solids. European Physical Journal D, 1989, 39, 251-260.	0.4	1
52	Dissipative dynamics of a harmonic oscillator with environmentally caused frequency modulation. Journal of Physics B: Atomic, Molecular and Optical Physics, 1988, 21, 3155-3165.	0.6	2
53	Electronic Structure of the Ferromagnetic Semiconductor sâ€”d Model from the Lowest Six Momenta. Physica Status Solidi (B): Basic Research, 1980, 97, 221-228.	0.7	3
54	Subband properties of the strong coupling sâ€”d model from the lowest six momenta. Journal of Magnetism and Magnetic Materials, 1979, 14, 87-93.	1.0	4

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55	Absorbed driven dïï¬€usion can provide positive heat and work output. Journal of Physics A: Mathematical and Theoretical, 0, , .	0.7	0