

Viktor Holubec

List of Publications by Year in descending order

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Version: 2024-02-01

43
papers

1,115
citations

430874

18
h-index

395702

33
g-index

45
all docs

45
docs citations

45
times ranked

629
citing authors

#	ARTICLE	IF	CITATIONS
1	Cycling Times Power Fluctuations near Optimum Efficiency. <i>Physical Review Letters</i> , 2018, 121, 120601.	7.8	111
2	Active particles bound by information flows. <i>Nature Communications</i> , 2018, 9, 3864.	12.8	98
3	Reinforcement learning with artificial microswimmers. <i>Science Robotics</i> , 2021, 6, .	17.6	85
4	An exactly solvable model of a stochastic heat engine: optimization of power, power fluctuations and efficiency. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2014, 2014, P05022.	2.3	68
5	Efficiency at and near maximum power of low-dissipation heat engines. <i>Physical Review E</i> , 2015, 92, 052125.	2.1	61
6	Maximum efficiency of low-dissipation heat engines at arbitrary power. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2016, 2016, 073204.	2.3	56
7	Maximum efficiency of steady-state heat engines at arbitrary power. <i>Physical Review E</i> , 2016, 93, 050101.	2.1	52
8	Active Brownian heat engines. <i>Physical Review Research</i> , 2020, 2, .	3.6	45
9	Diffusing up the Hill: Dynamics and Equipartition in Highly Unstable Systems. <i>Physical Review Letters</i> , 2018, 121, 230601.	7.8	39
10	Work and power fluctuations in a critical heat engine. <i>Physical Review E</i> , 2017, 96, 030102.	2.1	37
11	Diverging, but negligible power at Carnot efficiency: Theory and experiment. <i>Physical Review E</i> , 2017, 96, 062107.	2.1	35
12	Effects of Noise-Induced Coherence on the Performance of Quantum Absorption Refrigerators. <i>Journal of Low Temperature Physics</i> , 2018, 192, 147-168.	1.4	32
13	Physically consistent numerical solver for time-dependent Fokker-Planck equations. <i>Physical Review E</i> , 2019, 99, 032117.	2.1	28
14	Underdamped active Brownian heat engine. <i>Physical Review E</i> , 2020, 102, 060101.	2.1	27
15	Fully Steerable Symmetric Thermoplasmonic Microswimmers. <i>ACS Nano</i> , 2021, 15, 3434-3440.	14.6	27
16	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
17	Thermal Ratchet Effect in Confining Geometries. <i>Entropy</i> , 2017, 19, 119.	2.2	23
18	Fluctuations in heat engines. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2022, 55, 013001.	2.1	23

#	ARTICLE	IF	CITATIONS
19	How Activity Landscapes Polarize Microswimmers without Alignment Forces. <i>Physical Review Letters</i> , 2021, 126, 228001.	7.8	20
20	Finite-Size Scaling at the Edge of Disorder in a Time-Delay Vicsek Model. <i>Physical Review Letters</i> , 2021, 127, 258001.	7.8	20
21	Brownian motion in time-dependent logarithmic potential: Exact results for dynamics and first-passage properties. <i>Journal of Chemical Physics</i> , 2015, 143, 114117.	3.0	19
22	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
23	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
24	Brownian motion surviving in the unstable cubic potential and the role of Maxwell's demon. <i>Physical Review E</i> , 2018, 97, 032127.	2.1	18
25	Effects of noise-induced coherence on the fluctuations of current in quantum absorption refrigerators. <i>Journal of Chemical Physics</i> , 2019, 151, 044108.	3.0	15
26	Brownian molecules formed by delayed harmonic interactions. <i>New Journal of Physics</i> , 2019, 21, 093014.	2.9	15
27	Polarization-density patterns of active particles in motility gradients. <i>Physical Review E</i> , 2021, 103, 062601.	2.1	13
28	Thermodynamics and optimal protocols of multidimensional quadratic Brownian systems. <i>Journal of Physics Communications</i> , 0, , .	1.2	11
29	Living on the edge of instability. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2019, 2019, 084014.	2.3	9
30	Asymptotics of work distribution for a Brownian particle in a time-dependent anharmonic potential. <i>Physica Scripta</i> , 2015, T165, 014024.	2.5	7
31	Maximum efficiency of low-dissipation refrigerators at arbitrary cooling power. <i>Physical Review E</i> , 2020, 101, 052124.	2.1	7
32	Maximum efficiency of absorption refrigerators at arbitrary cooling power. <i>Physical Review E</i> , 2021, 103, 052125.	2.1	7
33	Non-equilibrium Energy Transformation Processes. <i>Springer Theses</i> , 2014, , .	0.1	7
34	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
35	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
36	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

#	ARTICLE	IF	CITATIONS
37	On asymptotic behavior of work distributions for driven Brownian motion. European Physical Journal B, 2015, 88, 1.	1.5	4
38	Density and polarization of active Brownian particles in curved activity landscapes. Physical Review E, 2021, 103, 062604.	2.1	4
39	Equilibrium stochastic delay processes. New Journal of Physics, 2022, 24, 023021.	2.9	3
40	Four Exactly Solvable Examples in Non-Equilibrium Thermodynamics of Small Systems. , 2011, , .		2
41	Unfolding kinetics of periodic DNA hairpins. Journal of Physics Condensed Matter, 2014, 26, 205102.	1.8	1
42	Maximum efficiency of low-dissipation heat pumps at given heating load. Physical Review E, 2022, 105, 024139.	2.1	1
43	Anomalous shift of the most probable position of a particle in an unstable optically created potential. , 2018, , .		0