

Lev Yu Barash

List of Publications by Year in descending order

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31
papers

411
citations

840119

11
h-index

752256

20
g-index

31
all docs

31
docs citations

31
times ranked

305
citing authors

#	ARTICLE	IF	CITATIONS
1	Calculating elements of matrix functions using divided differences. <i>Computer Physics Communications</i> , 2022, 271, 108219.	3.0	1
2	Influence of fluid flows on electric double layers in evaporating colloidal sessile droplets. <i>European Physical Journal E</i> , 2022, 45, 24.	0.7	0
3	Modeling Unsteady Bénard-Marangoni Instabilities in Drying Volatile Droplets on a Heated Substrate. <i>Journal of Experimental and Theoretical Physics</i> , 2021, 132, 302-312.	0.2	5
4	Understanding population annealing Monte Carlo simulations. <i>Physical Review E</i> , 2021, 103, 053301.	0.8	12
5	Fluid flow structures in an evaporating sessile droplet depending on the droplet size and properties of liquid and substrate. <i>Journal of Physics: Conference Series</i> , 2021, 1730, 012029.	0.3	0
6	Applying droplets and films in evaporative lithography. <i>Advances in Colloid and Interface Science</i> , 2020, 285, 102271.	7.0	32
7	Calculating the divided differences of the exponential function by addition and removal of inputs. <i>Computer Physics Communications</i> , 2020, 254, 107385.	3.0	8
8	Estimating the density of states of frustrated spin systems. <i>New Journal of Physics</i> , 2019, 21, 073065.	1.2	14
9	Analog nature of quantum adiabatic unstructured search. <i>New Journal of Physics</i> , 2019, 21, 113025.	1.2	8
10	Population Annealing and Large Scale Simulations in Statistical Mechanics. <i>Communications in Computer and Information Science</i> , 2019, , 354-366.	0.4	1
11	Joint effect of advection, diffusion, and capillary attraction on the spatial structure of particle depositions from evaporating droplets. <i>Physical Review E</i> , 2019, 100, 033304.	0.8	12
12	Percolation and jamming of random sequential adsorption samples of large linear polymers on a square lattice. <i>Physical Review E</i> , 2018, 98, .	0.8	28
13	Employing AVX vectorization to improve the performance of random number generators. <i>Programming and Computer Software</i> , 2017, 43, 145-160.	0.5	0
14	Control of accuracy in the Wang-Landau algorithm. <i>Physical Review E</i> , 2017, 96, 043307.	0.8	10
15	GPU accelerated population annealing algorithm. <i>Computer Physics Communications</i> , 2017, 220, 341-350.	3.0	36
16	Exploring first-order phase transitions with population annealing. <i>European Physical Journal: Special Topics</i> , 2017, 226, 595-604.	1.2	12
17	Population annealing: Massively parallel simulations in statistical physics. <i>Journal of Physics: Conference Series</i> , 2017, 921, 012017.	0.3	5
18	GPU-Accelerated Population Annealing Algorithm: Frustrated Ising Antiferromagnet on the Stacked Triangular Lattice. <i>EPJ Web of Conferences</i> , 2016, 108, 02016.	0.1	8

#	ARTICLE	IF	CITATIONS
19	Marangoni convection in an evaporating droplet: Analytical and numerical descriptions. <i>International Journal of Heat and Mass Transfer</i> , 2016, 102, 445-454.	2.5	17
20	RNGAVXLIB: Program library for random number generation, AVX realization. <i>Computer Physics Communications</i> , 2016, 200, 402-405.	3.0	13
21	Effective conductivity of the rectangular and hexagonal tessellations in the plane. <i>Journal of Experimental and Theoretical Physics</i> , 2015, 121, 229-236.	0.2	2
22	Dependence of fluid flows in an evaporating sessile droplet on the characteristics of the substrate. <i>International Journal of Heat and Mass Transfer</i> , 2015, 84, 419-426.	2.5	24
23	25th IUPAP Conference on Computational Physics (CCP2013). <i>Journal of Physics: Conference Series</i> , 2014, 510, 011001.	0.3	0
24	PRAND: GPU accelerated parallel random number generation library: Using most reliable algorithms and applying parallelism of modern GPUs and CPUs. <i>Computer Physics Communications</i> , 2014, 185, 1343-1353.	3.0	24
25	RNGSSELIB: Program library for random number generation. More generators, parallel streams of random numbers and Fortran compatibility. <i>Computer Physics Communications</i> , 2013, 184, 2367-2369.	3.0	11
26	Geometric and Statistical Properties of Pseudorandom Number Generators Based on Multiple Recursive Transformations. <i>Springer Proceedings in Mathematics and Statistics</i> , 2012, , 265-280.	0.1	2
27	RNGSSELIB: Program library for random number generation, SSE2 realization. <i>Computer Physics Communications</i> , 2011, 182, 1518-1527.	3.0	14
28	Applying dissipative dynamical systems to pseudorandom number generation: Equidistribution property and statistical independence of bits at distances up to logarithm of mesh size. <i>Europhysics Letters</i> , 2011, 95, 10003.	0.7	4
29	Influence of gravitational forces and fluid flows on the shape of surfaces of a viscous fluid of capillary size. <i>Physical Review E</i> , 2009, 79, 025302.	0.8	5
30	Evaporation and fluid dynamics of a sessile drop of capillary size. <i>Physical Review E</i> , 2009, 79, 046301.	0.8	86
31	Periodic orbits of the ensemble of Sinai-Arnold cat maps and pseudorandom number generation. <i>Physical Review E</i> , 2006, 73, 036701.	0.8	17