

# Lev Yu Barash

## List of Publications by Year in descending order

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Version: 2024-02-01

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	Evaporation and fluid dynamics of a sessile drop of capillary size. <i>Physical Review E</i> , 2009, 79, 046301.	0.8	86
2	GPU accelerated population annealing algorithm. <i>Computer Physics Communications</i> , 2017, 220, 341-350.	3.0	36
3	Applying droplets and films in evaporative lithography. <i>Advances in Colloid and Interface Science</i> , 2020, 285, 102271.	7.0	32
4	Percolation and jamming of random sequential adsorption samples of large linear-k-mers on a square lattice. <i>Physical Review E</i> , 2018, 98, .	0.8	28
5	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
6	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
7	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
8	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
9	RNGSSELIB: Program library for random number generation, SSE2 realization. <i>Computer Physics Communications</i> , 2011, 182, 1518-1527.	3.0	14
10	Estimating the density of states of frustrated spin systems. <i>New Journal of Physics</i> , 2019, 21, 073065.	1.2	14
11	RNGAVXLIB: Program library for random number generation, AVX realization. <i>Computer Physics Communications</i> , 2016, 200, 402-405.	3.0	13
12	Exploring first-order phase transitions with population annealing. <i>European Physical Journal: Special Topics</i> , 2017, 226, 595-604.	1.2	12
13	Understanding population annealing Monte Carlo simulations. <i>Physical Review E</i> , 2021, 103, 053301.	0.8	12
14	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
15	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
16	Control of accuracy in the Wang-Landau algorithm. <i>Physical Review E</i> , 2017, 96, 043307.	0.8	10
17	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
18	Analog nature of quantum adiabatic unstructured search. <i>New Journal of Physics</i> , 2019, 21, 113025.	1.2	8

#	ARTICLE	IF	CITATIONS
19	Calculating the divided differences of the exponential function by addition and removal of inputs. Computer Physics Communications, 2020, 254, 107385.	3.0	8
20	Influence of gravitational forces and fluid flows on the shape of surfaces of a viscous fluid of capillary size. Physical Review E, 2009, 79, 025302.	0.8	5
21	Population annealing: Massively parallel simulations in statistical physics. Journal of Physics: Conference Series, 2017, 921, 012017.	0.3	5
22	Modeling Unsteady Bénard-Marangoni Instabilities in Drying Volatile Droplets on a Heated Substrate. Journal of Experimental and Theoretical Physics, 2021, 132, 302-312.	0.2	5
23	Applying dissipative dynamical systems to pseudorandom number generation: Equidistribution property and statistical independence of bits at distances up to logarithm of mesh size. Europhysics Letters, 2011, 95, 10003.	0.7	4
24	Effective conductivity of the rectangular and hexagonal tessellations in the plane. Journal of Experimental and Theoretical Physics, 2015, 121, 229-236.	0.2	2
25	Geometric and Statistical Properties of Pseudorandom Number Generators Based on Multiple Recursive Transformations. Springer Proceedings in Mathematics and Statistics, 2012, , 265-280.	0.1	2
26	Population Annealing and Large Scale Simulations in Statistical Mechanics. Communications in Computer and Information Science, 2019, , 354-366.	0.4	1
27	Calculating elements of matrix functions using divided differences. Computer Physics Communications, 2022, 271, 108219.	3.0	1
28	25th IUPAP Conference on Computational Physics (CCP2013). Journal of Physics: Conference Series, 2014, 510, 011001.	0.3	0
29	Employing AVX vectorization to improve the performance of random number generators. Programming and Computer Software, 2017, 43, 145-160.	0.5	0
30	Fluid flow structures in an evaporating sessile droplet depending on the droplet size and properties of liquid and substrate. Journal of Physics: Conference Series, 2021, 1730, 012029.	0.3	0
31	Influence of fluid flows on electric double layers in evaporating colloidal sessile droplets. European Physical Journal E, 2022, 45, 24.	0.7	0