

# Lev N Shchur

## List of Publications by Year in descending order

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80  
papers

1,071  
citations

430874

18  
h-index

454955

30  
g-index

84  
all docs

84  
docs citations

84  
times ranked

571  
citing authors

#	ARTICLE	IF	CITATIONS
1	On the stochasticity in relativistic cosmology. <i>Journal of Statistical Physics</i> , 1985, 38, 97-114.	1.2	115
2	Evaporation and fluid dynamics of a sessile drop of capillary size. <i>Physical Review E</i> , 2009, 79, 046301.	2.1	86
3	Critical Binder cumulant in two-dimensional anisotropic Ising models. <i>Journal of Physics A</i> , 2005, 38, L739-L744.	1.6	73
4	THE CLUSTER PROCESSOR: NEW RESULTS. <i>International Journal of Modern Physics C</i> , 1999, 10, 1137-1148.	1.7	70
5	Specific heat of two-dimensional diluted magnets. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1998, 259, 388-396.	2.6	40
6	On the universality of rank distributions of website popularity. <i>Computer Networks</i> , 2006, 50, 1769-1780.	5.1	39
7	Critical Binder cumulant in a two-dimensional anisotropic Ising model with competing interactions. <i>Physical Review E</i> , 2009, 80, 042104.	2.1	38
8	GPU accelerated population annealing algorithm. <i>Computer Physics Communications</i> , 2017, 220, 341-350.	7.5	36
9	Probability of Incipient Spanning Clusters in Critical Square Bond Percolation. <i>International Journal of Modern Physics C</i> , 1997, 08, 473-481.	1.7	33
10	Simulation of a directed random-walk model the effect of pseudo-random-number correlations. <i>Physica A: Statistical Mechanics and Its Applications</i> , 1997, 241, 579-592.	2.6	32
11	Critical-Point Correlation Function for the 2D Random Bond Ising Model. <i>Europhysics Letters</i> , 1994, 27, 193-196.	2.0	31
12	Cluster Monte Carlo: tScaling of systematic errors in the two-dimensional Ising model. <i>Physical Review E</i> , 1997, 55, R4905-R4908.	2.1	31
13	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.	7.5	24
14	Test of multiscaling in a diffusion-limited-aggregation model using an off-lattice killing-free algorithm. <i>Physical Review E</i> , 2006, 73, 011407.	2.1	22
15	The critical region of the random-bond Ising model. <i>Journal of Physics Condensed Matter</i> , 1994, 6, 8295-8308.	1.8	20
16	On the quality of random number generators with taps. <i>Computer Physics Communications</i> , 1999, 121-122, 83-85.	7.5	20
17	The RANLUX Generator: Resonances in a Random Walk Test. <i>International Journal of Modern Physics C</i> , 1998, 09, 607-624.	1.7	20
18	Critical amplitude ratio of the susceptibility in the random-site two-dimensional Ising model. <i>Physical Review E</i> , 2001, 65, 016107.	2.1	18

#	ARTICLE	IF	CITATIONS
19	Periodic orbits of the ensemble of Sinai-Arnold cat maps and pseudorandom number generation. <i>Physical Review E</i> , 2006, 73, 036701.	2.1	17
20	Critical amplitude ratios of the Baxter-Wu model. <i>Nuclear Physics B</i> , 2010, 840, 491-512.	2.5	16
21	Quenched bond dilution in two-dimensional Potts models. <i>Journal of Physics A</i> , 2001, 34, 9593-9614.	1.6	14
22	On the Aizenman exponent in critical percolation. <i>JETP Letters</i> , 2002, 76, 475-480.	1.4	14
23	RNGSSELIB: Program library for random number generation, SSE2 realization. <i>Computer Physics Communications</i> , 2011, 182, 1518-1527.	7.5	14
24	High-precision determination of universal amplitude ratios for the $q=3$ Potts model in two dimensions. <i>Physical Review B</i> , 2008, 77, .	3.2	13
25	Numerical revision of the universal amplitude ratios for the two-dimensional 4-state Potts model. <i>Nuclear Physics B</i> , 2009, 811, 491-518.	2.5	13
26	RNGAVXLIB: Program library for random number generation, AVX realization. <i>Computer Physics Communications</i> , 2016, 200, 402-405.	7.5	13
27	Evolution of time horizons in parallel and grid simulations. <i>Physical Review E</i> , 2004, 70, 026703.	2.1	12
28	Exploring first-order phase transitions with population annealing. <i>European Physical Journal: Special Topics</i> , 2017, 226, 595-604.	2.6	12
29	Understanding population annealing Monte Carlo simulations. <i>Physical Review E</i> , 2021, 103, 053301.	2.1	12
30	Susceptibility amplitude ratio in the two-dimensional three-state Potts model. <i>Nuclear Physics B</i> , 2002, 620, 579-587.	2.5	11
31	Morphological diagram of diffusion driven aggregate growth in plane: Competition of anisotropy and adhesion. <i>Computer Physics Communications</i> , 2011, 182, 1819-1823.	7.5	11
32	Computational physics and testing theoretical predictions. <i>Physics-Usppekhi</i> , 2012, 55, 733-738.	2.2	11
33	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.	7.5	11
34	Probing surface characteristics of diffusion-limited-aggregation clusters with particles of variable size. <i>Physical Review E</i> , 2007, 75, 010401.	2.1	10
35	A study of logarithmic corrections and universal amplitude ratios in the two-dimensional 4-state Potts model. <i>Europhysics Letters</i> , 2008, 81, 30008.	2.0	10
36	Control of accuracy in the Wang-Landau algorithm. <i>Physical Review E</i> , 2017, 96, 043307.	2.1	10

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37	Finite size effect of harmonic measure estimation in a DLA model: Variable size of probe particles. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2008, 387, 6299-6309.	2.6	9
38	Numerical investigation of logarithmic corrections in two-dimensional spin models. <i>JETP Letters</i> , 2004, 79, 213-217.	1.4	6
39	Interfacial adsorption in Potts models on the square lattice. <i>European Physical Journal B</i> , 2015, 88, 1.	1.5	6
40	Synchronization of conservative parallel discrete event simulations on a small-world network. <i>Physical Review E</i> , 2018, 98, 022218.	2.1	6
41	The two-dimensional 4-state Potts model in a magnetic field. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2013, 46, 095001.	2.1	5
42	Model for the evolution of the time profile in optimistic parallel discrete event simulations. <i>Journal of Physics: Conference Series</i> , 2016, 681, 012047.	0.4	5
43	Population annealing: Massively parallel simulations in statistical physics. <i>Journal of Physics: Conference Series</i> , 2017, 921, 012017.	0.4	5
44	Universal ratios of critical amplitudes in the Potts model universality class. <i>Computer Physics Communications</i> , 2009, 180, 493-496.	7.5	4
45	Dynamic fractals in spatial evolutionary games. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 499, 142-147.	2.6	4
46	Simulation of Drop Oscillation Using the Lattice Boltzmann Method. <i>Lobachevskii Journal of Mathematics</i> , 2020, 41, 992-995.	0.9	4
47	ACTIVE MEASUREMENTS (EXPERIMENTS) OF THE INTERNET TRAFFIC USING CACHE-MESH. <i>International Journal of Modern Physics C</i> , 2001, 12, 549-562.	1.7	3
48	Early stages of generation of two-dimensional structures by the Hastings-Levitov method of conformal mapping dynamics. <i>Journal of Experimental and Theoretical Physics</i> , 2002, 95, 145-153.	0.9	3
49	Relation of Parallel Discrete Event Simulation algorithms with physical models. <i>Journal of Physics: Conference Series</i> , 2015, 640, 012065.	0.4	3
50	On properties of the Wang-Landau algorithm. <i>Journal of Physics: Conference Series</i> , 2019, 1252, 012010.	0.4	3
51	Acceptance rate is a thermodynamic function in local Monte Carlo algorithms. <i>Physical Review E</i> , 2019, 100, 063303.	2.1	3
52	Cyclotron enhancement of tunneling. <i>Physical Review B</i> , 2008, 78, .	3.2	2
53	Logarithmic corrections and universal amplitude ratios in the 4-state Potts model. <i>Physics Procedia</i> , 2010, 7, 7-18.	1.2	2
54	Simulation of virtual time profile in conservative parallel discrete event simulation algorithm for small-world network. <i>Lobachevskii Journal of Mathematics</i> , 2017, 38, 967-970.	0.9	2

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55	On the mixing time in the Wang-Landau algorithm. Journal of Physics: Conference Series, 2018, 955, 012028.	0.4	2
56	Variable-step-length algorithms for a random walk: Hitting probability and computation performance. Computer Physics Communications, 2019, 241, 28-32.	7.5	2
57	Synchronization of Processes in Parallel Discrete Event Simulation. Journal of Experimental and Theoretical Physics, 2019, 129, 722-732.	0.9	2
58	On the geometric structures in evolutionary games on square and triangular lattices. Journal of Physics: Conference Series, 2019, 1290, 012027.	0.4	2
59	Marginal Effect of Structural Defects on the Nonequilibrium Critical Behavior of the Two-Dimensional Ising Model. Journal of Experimental and Theoretical Physics, 2020, 130, 258-273.	0.9	2
60	Algorithm for replica redistribution in an implementation of the population annealing method on a hybrid supercomputer architecture. Computer Physics Communications, 2021, 261, 107786.	7.5	2
61	Mean-field interactions in evolutionary spatial games. Physical Review Research, 2021, 3, .	3.6	2
62	Universality classes and machine learning. Journal of Physics: Conference Series, 2021, 1740, 012003.	0.4	2
63	Computer analysis of the cemented carbidesâ€™ microstructure. Letters on Materials, 2021, 11, 447-451.	0.7	2
64	Interfaces in evolutionary games. Journal of Physics: Conference Series, 2018, 955, 012023.	0.4	1
65	Matrix multiplication and universal scalability of the time on the Intel Scalable processors. Journal of Physics: Conference Series, 2019, 1163, 012079.	0.4	1
66	Population Annealing and Large Scale Simulations in Statistical Mechanics. Communications in Computer and Information Science, 2019, , 354-366.	0.5	1
67	Spatial chaos in the Nowak-May game in three dimensions. Journal of Physics: Conference Series, 2021, 1740, 012057.	0.4	1
68	Drop Oscillation Modeling. Communications in Computer and Information Science, 2020, , 198-206.	0.5	1
69	Properties of the Conservative Parallel Discrete Event Simulation Algorithm. Lecture Notes in Computer Science, 2017, , 246-253.	1.3	1
70	On the distribution function of the information speed in computer network. Computer Physics Communications, 2002, 147, 595-599.	7.5	0
71	25th IUPAP Conference on Computational Physics (CCP2013). Journal of Physics: Conference Series, 2014, 510, 011001.	0.4	0
72	New trends in Computer Simulations in Physics and not only in physics. Journal of Physics: Conference Series, 2016, 681, 011001.	0.4	0

#	ARTICLE	IF	CITATIONS
73	Employing AVX vectorization to improve the performance of random number generators. Programming and Computer Software, 2017, 43, 145-160.	0.9	0
74	Influence of the random walk finite step on the first-passage probability. Journal of Physics: Conference Series, 2018, 955, 012009.	0.4	0
75	Algorithm for foam generation in plane. Journal of Physics: Conference Series, 2021, 1740, 012030.	0.4	0
76	Local time evolution in Personal Communication Service model. Journal of Physics: Conference Series, 2021, 1740, 012005.	0.4	0
77	Simulation of the Drops Oscillations in the Channel. Smart Innovation, Systems and Technologies, 2021, , 275-282.	0.6	0
78	Organizing an international conference online during a pandemic: first experience. Journal of Physics: Conference Series, 2021, 1740, 011002.	0.4	0
79	Immersed boundary simulation of drop stability. Journal of Physics: Conference Series, 2021, 1740, 012026.	0.4	0
80	Special Purpose Computers for Statistical Physics: achievements and lessons. , 2020, , .		0