Gregory Schehr

List of Publications by Year
in descending order

162 papers	5,081 citations	126901 33 h-index	118840 62 g-index
163 all docs	163 docs citations	163 times ranked	1410 citing authors

#	Article	IF	Citations
1	Persistence and first-passage properties in nonequilibrium systems. Advances in Physics, 2013, 62, 225-361.	14.4	392
2	Stochastic resetting and applications. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 193001.	2.1	313
3	First Order Transition for the Optimal Search Time of Lévy Flights with Resetting. Physical Review Letters, 2014, 113, 220602.	7.8	235
4	Dynamical transition in the temporal relaxation of stochastic processes under resetting. Physical Review E, 2015, 91, 052131.	2.1	137
5	Fluctuating Interfaces Subject to Stochastic Resetting. Physical Review Letters, 2014, 112, 220601.	7.8	125
6	Run-and-tumble particle in one-dimensional confining potentials: Steady-state, relaxation, and first-passage properties. Physical Review E, 2019, 99, 032132.	2.1	121
7	Top eigenvalue of a random matrix: large deviations and third order phase transition. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P01012.	2.3	118
8	Extreme value statistics of correlated random variables: A pedagogical review. Physics Reports, 2020, 840, 1-32.	25.6	113
9	First passages for a search by a swarm of independent random searchers. Journal of Statistical Mechanics: Theory and Experiment, 2011, 2011, P06022.	2.3	100
10	Collective dynamics of social annotation. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10511-10515.	7.1	99
11	Non-intersecting Brownian walkers and Yang–Mills theory on the sphere. Nuclear Physics B, 2011, 844, 500-526.	2.5	95
12	Exact Distribution of the Maximal Height ofpVicious Walkers. Physical Review Letters, 2008, 101, 150601.	7.8	81
13	Active Brownian motion in two dimensions. Physical Review E, 2018, 98, .	2.1	78
14	Noninteracting fermions at finite temperature in a d-dimensional trap: Universal correlations. Physical Review A, 2016, 94, .	2.5	74
15	Random walk with random resetting to the maximum position. Physical Review E, 2015, 92, 052126.	2.1	73
16	Universal Survival Probability for a d-Dimensional Run-and-Tumble Particle. Physical Review Letters, 2020, 124, 090603.	7.8	60
17	Large deviations for the height in 1D Kardar-Parisi-Zhang growth at late times. Europhysics Letters, 2016, 113, 60004.	2.0	58
18	Universal asymptotic statistics of maximal relative height in one-dimensional solid-on-solid models. Physical Review E, 2006, 73, 056103.	2.1	57

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19	Ising model with stochastic resetting. Physical Review Research, 2020, 2, .	3.6	56
20	Exact Short-Time Height Distribution in the One-Dimensional Kardar-Parisi-Zhang Equation and Edge Fermions at High Temperature. Physical Review Letters, 2016, 117, 070403.	7.8	55
21	A note on q-Gaussians and non-Gaussians in statistical mechanics. Journal of Statistical Mechanics: Theory and Experiment, 2007, 2007, P06003-P06003.	2.3	54
22	Phase Transitions and Edge Scaling of Number Variance in Gaussian Random Matrices. Physical Review Letters, 2014, 112, 254101.	7.8	53
23	Record statistics and persistence for a random walk with a drift. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 355002.	2.1	49
24	Finite-Temperature Free Fermions and the Kardar-Parisi-Zhang Equation at Finite Time. Physical Review Letters, 2015, 114, 110402.	7.8	49
25	Long-time position distribution of an active Brownian particle in two dimensions. Physical Review E, 2019, 100, 062116.	2.1	49
26	Extremes of N Vicious Walkers for Large N: Application to the Directed Polymer and KPZ Interfaces. Journal of Statistical Physics, 2012, 149, 385-410.	1.2	48
27	Exact stationary state of a run-and-tumble particle with three internal states in a harmonic trap. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 09LT01.	2.1	48
28	Noncrossing run-and-tumble particles on a line. Physical Review E, 2019, 100, 012113.	2.1	44
29	Extreme value statistics from the real space renormalization group: Brownian motion, Bessel processes and continuous time random walks. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P01009.	2.3	42
30	Noninteracting fermions in a trap and random matrix theory. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 144006.	2.1	42
31	Extremal statistics of curved growing interfaces in 1+1 dimensions. Europhysics Letters, 2010, 91, 60006.	2.0	38
32	Multicritical Edge Statistics for the Momenta of Fermions in Nonharmonic Traps. Physical Review Letters, 2018, 121, 030603.	7.8	36
33	Record statistics of a strongly correlated time series: random walks and Lévy flights. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 333001.	2.1	35
34	Distribution of the time at which N vicious walkers reach their maximal height. Physical Review E, 2011, 83, 061146.	2.1	34
35	Intermittent resetting potentials. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 113203.	2.3	34
36	Record statistics for multiple random walks. Physical Review E, 2012, 86, 011119.	2.1	33

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37	High-precision simulation of the height distribution for the KPZ equation. Europhysics Letters, 2018, 121, 67004.	2.0	33
38	Rotating trapped fermions in two dimensions and the complex Ginibre ensemble: Exact results for the entanglement entropy and number variance. Physical Review A, 2019, 99, .	2.5	33
39	Reunion Probability of N Vicious Walkers: Typical and Large Fluctuations for Large N. Journal of Statistical Physics, 2013, 150, 491-530.	1.2	32
40	Superaging in two-dimensional random ferromagnets. Physical Review E, 2007, 75, 030104.	2.1	31
41	Universal Order Statistics of Random Walks. Physical Review Letters, 2012, 108, 040601.	7.8	31
42	Anomalous Fluctuations of Currents in Sinai-Type Random Chains with Strongly Correlated Disorder. Physical Review Letters, 2013, 110, 100602.	7.8	31
43	Universal ground-state properties of free fermions in a d -dimensional trap. Europhysics Letters, 2015, 112, 60001.	2.0	31
44	Exact Extremal Statistics in the Classical 1D Coulomb Gas. Physical Review Letters, 2017, 119, 060601.	7.8	31
45	Wigner function of noninteracting trapped fermions. Physical Review A, 2018, 97, .	2.5	31
46	Universal aging properties at a disordered critical point. Physical Review E, 2005, 72, 016105.	2.1	30
47	Longest Excursion of Stochastic Processes in Nonequilibrium Systems. Physical Review Letters, 2009, 102, 240602.	7.8	29
48	On the joint distribution of the maximum and its position of the Airy2 process minus a parabola. Journal of Mathematical Physics, 2012, 53, 083303.	1.1	29
49	Exact multilocal renormalization of the effective action: Application to the random sine Gordon model statics and nonequilibrium dynamics. Physical Review E, 2003, 68, 046101.	2.1	28
50	Strong-Disorder Fixed Point in the Dissipative Random Transverse-Field Ising Model. Physical Review Letters, 2006, 96, 227201.	7.8	28
51	Real Roots of Random Polynomials and Zero Crossing Properties of Diffusion Equation. Journal of Statistical Physics, 2008, 132, 235-273.	1.2	28
52	Number statistics for β-ensembles of random matrices: Applications to trapped fermions at zero temperature. Physical Review E, 2016, 94, 032115.	2.1	28
53	The convex hull of the run-and-tumble particle in a plane. Journal of Statistical Mechanics: Theory and Experiment, 2020, 2020, 053401.	2.3	28
54	Current fluctuations in noninteracting run-and-tumble particles in one dimension. Physical Review E, 2020, 101, 052101.	2.1	27

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55	Exact Distributions of the Number of Distinct and Common Sites Visited by N Independent Random Walkers. Physical Review Letters, 2013, 110, 220602.	7.8	26
56	Diffusion in periodic, correlated random forcing landscapes. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 372001.	2.1	26
57	Exact Persistence Exponent for the $2D$-Diffusion Equation and Related Kac Polynomials. Physical Review Letters, 2018, 121, 150601.	7.8	26
58	Universal properties of a run-and-tumble particle in arbitrary dimension. Physical Review E, 2020, 102, 042133.	2.1	26
59	Universal statistics of longest lasting records of random walks and Lévy flights. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 255001.	2.1	25
60	Intermediate deviation regime for the full eigenvalue statistics in the complex Ginibre ensemble. Physical Review E, 2019, 100, 012137.	2.1	25
61	Aging in the Glass Phase of a Two-Dimensional Random Periodic Elastic System. Physical Review Letters, 2004, 93, 217201.	7.8	24
62	Velocity and diffusion constant of an active particle in a one-dimensional force field. Europhysics Letters, 2020, 130, 40002.	2.0	24
63	Mean perimeter and area of the convex hull of a planar Brownian motion in the presence of resetting. Physical Review E, 2021, 103, 022135.	2.1	24
64	Optimal Resetting Brownian Bridges via Enhanced Fluctuations. Physical Review Letters, 2022, 128, .	7.8	23
65	Functional renormalization for pinned elastic systems away from their steady states. Europhysics Letters, 2005, 71, 290-296.	2.0	22
66	Universal Nonstationary Dynamics at the Depinning Transition. Physical Review Letters, 2009, 103, 160602.	7.8	22
67	Exact Statistics of the Gap and Time Interval between the First Two Maxima of Random Walks and Lévy Flights. Physical Review Letters, 2013, 111, 070601.	7.8	22
68	Universal Order and Gap Statistics of Critical Branching Brownian Motion. Physical Review Letters, 2014, 112, .	7.8	22
69	Record statistics for random walks and Lévy flights with resetting. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 034002.	2.1	22
70	Extremes of 2d Coulomb gas: universal intermediate deviation regime. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 013203.	2.3	21
71	Time Between the Maximum and the Minimum of a Stochastic Process. Physical Review Letters, 2019, 123, 200201.	7.8	21
72	Domain walls and chaos in the disordered SOS model. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P08022.	2.3	20

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73	Near-Extreme Statistics of Brownian Motion. Physical Review Letters, 2013, 111, 240601.	7.8	20
74	Index distribution of Cauchy random matrices. Journal of Physics A: Mathematical and Theoretical, 2014, 47, 055001.	2.1	20
75	Statistics of the longest interval in renewal processes. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P03014.	2.3	20
76	Large time zero temperature dynamics of the spherical pâ‰‰=â‰‰â‰‰2-spin glass model of finite size. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P11017.	2.3	20
77	Spatial extent of branching Brownian motion. Physical Review E, 2015, 91, 042131.	2.1	20
78	Exact extreme-value statistics at mixed-order transitions. Physical Review E, 2016, 93, 052130.	2.1	20
79	Statistics of fermions in a d-dimensional box near a hard wall. Europhysics Letters, 2017, 120, 10006.	2.0	20
80	Distribution of the time between maximum and minimum of random walks. Physical Review E, 2020, 101, 052111.	2.1	20
81	Numerical solution of the dynamical mean field theory of infinite-dimensional equilibrium liquids. Journal of Chemical Physics, 2020, 152, 164506.	3.0	20
82	Counting statistics for noninteracting fermions in a <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>d</mml:mi></mml:math> -dimensional potential. Physical Review E, 2021, 103, L030105.	2.1	20
83	Condensation transition in the late-time position of a run-and-tumble particle. Physical Review E, 2021, 103, 062134.	2.1	20
84	Statistics of the Number of Zero Crossings: From Random Polynomials to the Diffusion Equation. Physical Review Letters, 2007, 99, 060603.	7.8	19
85	Longest excursion of fractional Brownian motion: Numerical evidence of non-Markovian effects. Physical Review E, 2010, 81, 010102.	2.1	19
86	Large deviations of the top eigenvalue of large Cauchy random matrices. Journal of Physics A: Mathematical and Theoretical, 2013, 46, 022001.	2.1	19
87	Near-Extreme Eigenvalues and the First Gap of Hermitian Random Matrices. Journal of Statistical Physics, 2014, 156, 843-876.	1.2	19
88	Periodic Airy process and equilibrium dynamics of edge fermions in a trap. Annals of Physics, 2017, 383, 312-345.	2.8	19
89	Non-intersecting Brownian Bridges in the Flat-to-Flat Geometry. Journal of Statistical Physics, 2021, 183, 1.	1.2	19
90	Extreme statistics and index distribution in the classical 1<i>d</i> Coulomb gas. Journal of Physics A: Mathematical and Theoretical, 2018, 51, 295001.	2.1	18

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91	Nonequilibrium dynamics of noninteracting fermions in a trap. Europhysics Letters, 2019, 126, 20006.	2.0	18
92	Nonequilibrium dynamics below the super-roughening transition. Physical Review B, 2005, 71, .	3.2	17
93	Branching Brownian motion conditioned on particle numbers. Chaos, Solitons and Fractals, 2015, 74, 79-88.	5.1	17
94	Finite temperature behavior of strongly disordered quantum magnets coupled to a dissipative bath. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P04012.	2.3	16
95	Distribution of the time of the maximum for stationary processes. Europhysics Letters, 2021, 135, 30003.	2.0	16
96	Non-crossing Brownian Paths and Dyson Brownian Motion Under a Moving Boundary. Journal of Statistical Physics, 2019, 177, 752-805.	1.2	15
97	Survival probability of a run-and-tumble particle in the presence of a drift. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 043211.	2.3	15
98	An exactly solvable predator prey model with resetting. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 274005.	2.1	15
99	Dynamic crossover in the global persistence at criticality. Europhysics Letters, 2007, 78, 10007.	2.0	14
100	Proportionate vs disproportionate distribution of wealth of two individuals in a tempered Paretian ensemble. Physica A: Statistical Mechanics and Its Applications, 2011, 390, 4340-4346.	2.6	14
101	Exact Record and Order Statistics of Random Walks via First-Passage Ideas. , 2014, , 226-251.		14
102	Finite N corrections to the limiting distribution of the smallest eigenvalue of Wishart complex matrices. Random Matrices: Theory and Application, 2016, 05, 1650001.	1.1	14
103	Statistics of the maximal distance and momentum in a trapped Fermi gas at low temperature. Journal of Statistical Mechanics: Theory and Experiment, 2017, 2017, 063301.	2.3	14
104	Maximum relative height of one-dimensional interfaces: from Rayleigh to Airy distribution. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P09004.	2.3	13
105	Spontaneous symmetry breaking in a two-lane model for bidirectional overtaking traffic. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P08024.	2.3	13
106	Asymmetric LÃ©vy flights in the presence of absorbing boundaries. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P10006.	2.3	13
107	Record statistics for random walk bridges. Journal of Statistical Mechanics: Theory and Experiment, 2015, 2015, P07026.	2.3	13
108	Exact Statistics of Record Increments of Random Walks and LÃ©vy Flights. Physical Review Letters, 2016, 117, 010601.	7.8	13

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109	Survival probability of random walks and LÃ©vy flights on a semi-infinite line. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 465002.	2.1	13
110	Full counting statistics for interacting trapped fermions. SciPost Physics, 2021, 11, .	4.9	13
111	Non-equilibrium critical dynamics in disordered ferromagnets. Journal of Physics: Conference Series, 2006, 40, 27-35.	0.4	12
112	Finite-temperature and finite-time scaling of the directed polymer free energy with respect to its geometrical fluctuations. Physical Review E, 2012, 86, 031144.	2.1	12
113	Super-Rough Glassy Phase of the Random Field<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>X</mml:mi><mml:mi>Y</mml:mi></mml:math>Model in Two Dimensions. Physical Review Letters, 2012, 109, 157205.	7.8	12
114	Kinetic Energy of a Trapped Fermi Gas at Finite Temperature. Physical Review Letters, 2017, 119, 130601.	7.8	12
115	Non-interacting fermions in hard-edge potentials. Journal of Statistical Mechanics: Theory and Experiment, 2018, 2018, 123103.	2.3	12
116	Generating discrete-time constrained random walks and LÃ©vy flights. Physical Review E, 2021, 104, 024117.	2.1	12
117	On the gap and time interval between the first two maxima of long random walks. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P09013.	2.3	11
118	Fluctuations of observables for free fermions in a harmonic trap at finite temperature. SciPost Physics, 2018, 4, .	4.9	11
119	Disordered free fermions and the Cardy-Ostlund fixed line at low temperature. Physical Review B, 2007, 75, .	3.2	10
120	LÃ©vy flights on the half line. Physical Review E, 2012, 86, 011101.	2.1	10
121	On Certain Functionals of the Maximum of Brownian Motion and Their Applications. Journal of Statistical Physics, 2015, 161, 1112-1154.	1.2	10
122	Generating constrained run-and-tumble trajectories. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 385004.	2.1	10
123	Stationary nonequilibrium bound state of a pair of run and tumble particles. Physical Review E, 2021, 104, 044103.	2.1	10
124	Sylvesterâ€™s question and the random acceleration process. Journal of Statistical Mechanics: Theory and Experiment, 2008, 2008, P10010.	2.3	9
125	Dynamics of annihilation. I. Linearized Boltzmann equation and hydrodynamics. Physical Review E, 2008, 77, 051127.	2.1	9
126	Exact distributions of cover times for<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>N</mml:mi></mml:math>independent random walkers in one dimension. Physical Review E, 2016, 94, 062131.	2.1	9

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127	Truncated linear statistics in the one dimensional one-component plasma. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 435002.	2.1	9
128	Specific Heat of Classical Disordered Elastic Systems. Physical Review Letters, 2003, 91, 117002.	7.8	8
129	Maximum relative height of elastic interfaces in random media. Physical Review E, 2011, 84, 041131.	2.1	8
130	Multilayered density profile for noninteracting fermions in a rotating two-dimensional trap. Physical Review A, 2021, 103, .	2.5	8
131	Statistics of the number of records for random walks and Lévy flights on a 1D lattice. Journal of Physics A: Mathematical and Theoretical, 2020, 53, 415003.	2.1	8
132	Generating stochastic trajectories with global dynamical constraints. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 123204.	2.3	8
133	Counting statistics for noninteracting fermions in a rotating trap. Physical Review A, 2022, 105, .	2.5	8
134	Non-Markovian persistence in the diluted Ising model at criticality. Europhysics Letters, 2005, 72, 719-725.	2.0	7
135	Low-temperature specific heat of some quantum mean-field glassy phases. Physical Review B, 2005, 71, .	3.2	7
136	Area distribution and the average shape of a Lévy bridge. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P08005.	2.3	7
137	Impurities in systems of noninteracting trapped fermions. SciPost Physics, 2021, 10, .	4.9	7
138	Harmonically confined long-ranged interacting gas in the presence of a hard wall. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 103209.	2.3	7
139	Gap probability and full counting statistics in the one-dimensional one-component plasma. Journal of Statistical Mechanics: Theory and Experiment, 2022, 2022, 053211.	2.3	7
140	Dynamics of annihilation. II. Fluctuations of global quantities. Physical Review E, 2008, 77, 051128.	2.1	6
141	Maximal Distance Travelled by N Vicious Walkers Till Their Survival. Journal of Statistical Physics, 2014, 157, 124-157.	1.2	6
142	Ground-state energy of noninteracting fermions with a random energy spectrum. Europhysics Letters, 2018, 124, 40005.	2.0	6
143	Gap statistics close to the quantile of a random walk. Journal of Physics A: Mathematical and Theoretical, 2019, 52, 315003.	2.1	6
144	Noninteracting trapped fermions in double-well potentials: Inverted-parabola kernel. Physical Review A, 2020, 101, .	2.5	6

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145	Specific heat of the quantum Bragg glass. Europhysics Letters, 2004, 66, 538-544.	2.0	5
146	Condensation of the Roots ofÂReal Random Polynomials onÂtheÂReal Axis. Journal of Statistical Physics, 2009, 135, 587-598.	1.2	5
147	Kernels for non interacting fermions via a Greenâ€™s function approach with applications to step potentials. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 084001.	2.1	5
148	Wigner function for noninteracting fermions in hard-wall potentials. Physical Review A, 2021, 104, .	2.5	5
149	Edge fluctuations and third-order phase transition in harmonically confined long-range systems. Journal of Statistical Mechanics: Theory and Experiment, 2022, 2022, 033203.	2.3	5
150	On the gap and time interval between the first two maxima of long continuous time random walks. Journal of Statistical Mechanics: Theory and Experiment, 2016, 2016, 013303.	2.3	3
151	First gap statistics of long random walks with bounded jumps. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 185001.	2.1	3
152	Last-Passage Time for Linear Diffusions and Application to the Emptying Time of a Box. Journal of Statistical Physics, 2020, 181, 1565-1602.	1.2	3
153	Expected maximum of bridge random walks & LÃ©vy flights. Journal of Statistical Mechanics: Theory and Experiment, 2021, 2021, 083215.	2.3	3
154	Dynamic crossover in the persistence probability of manifolds at criticality. Journal of Statistical Mechanics: Theory and Experiment, 2010, 2010, P12029.	2.3	2
155	Smoluchowski flux and lamb-lion problems for random walks and LÃ©vy flights with a constant drift. Journal of Statistical Mechanics: Theory and Experiment, 2019, 2019, 083214.	2.3	1
156	Tracy-Widom Distributions for the Gaussian Orthogonal and Symplectic Ensembles Revisited: A Skew-Orthogonal Polynomials Approach. Journal of Statistical Physics, 2021, 182, 1.	1.2	1
157	Universal record statistics for random walks and LÃ©vy flights with a nonzero staying probability. Journal of Physics A: Mathematical and Theoretical, 0, , .	2.1	1
158	Statistics of the maximum and the convex hull of a Brownian motion in confined geometries. Journal of Physics A: Mathematical and Theoretical, 2022, 55, 144002.	2.1	1
159	Computer Simulations of Phase Transitions and Dynamics in Confined Systems. Zeitschrift Fur Physikalische Chemie, 2008, 222, 433-469.	2.8	0
160	Global fluctuations in dissipative systems. , 2009, , .		0
161	Hydrodynamic description for ballistic annihilation systems. , 2009, , .		0
162	Computer Simulations of Phase Transitions and Dynamics in Confined Systems. , 2008, , 209-245.		0