# Werner Krauth

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

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|---|---|---|---|
| 95 papers | 10,453 citations | 41 h-index | 98 g-index |
| 98 ext. papers | 11,368 ext. citations | 4.6 avg, IF | 6.25 L-index |

| # | Paper | IF | Citations |
|---|---|---|---|
| 95 | Large-scale dynamics of event-chain Monte Carlo.. *Physical Review E*, **2022**, 105, 015309 | 2.4 | |
| 94 | Hard-disk dipoles and non-reversible Markov chains.. *Journal of Chemical Physics*, **2022**, 156, 084108 | 3.9 | 1 |
| 93 | Sparse Hard-Disk Packings and Local Markov Chains. *Journal of Statistical Physics*, **2022**, 187, 1 | 1.5 | 2 |
| 92 | Event-Chain Monte Carlo: Foundations, Applications, and Prospects. *Frontiers in Physics*, **2021**, 9, | 3.9 | 9 |
| 91 | Multithreaded event-chain Monte Carlo with local times. *Computer Physics Communications*, **2021**, 261, 107702 | 4.2 | 4 |
| 90 | JeLLyFysh-Version1.0 a Python application for all-atom event-chain Monte Carlo. *Computer Physics Communications*, **2020**, 253, 107168 | 4.2 | 6 |
| 89 | A kinetic-Monte Carlo perspective on active matter. *Journal of Chemical Physics*, **2019**, 150, 144113 | 3.9 | 4 |
| 88 | Event-chain Monte Carlo with factor fields. *Physical Review E*, **2019**, 99, 043301 | 2.4 | 3 |
| 87 | Solid-liquid transition of skyrmions in a two-dimensional chiral magnet. *Physical Review B*, **2019**, 99, | 3.3 | 8 |
| 86 | Irreversible Markov chains in spin models: Topological excitations. *Europhysics Letters*, **2018**, 121, 10008 | 1.6 | 5 |
| 85 | All-atom computations with irreversible Markov chains. *Journal of Chemical Physics*, **2018**, 149, 064113 | 3.9 | 10 |
| 84 | Thermodynamic phases in two-dimensional active matter. *Nature Communications*, **2018**, 9, 5045 | 17.4 | 53 |
| 83 | Mixing and perfect sampling in one-dimensional particle systems. *Europhysics Letters*, **2018**, 124, 20003 | 1.6 | 6 |
| 82 | Irreversible Local Markov Chains with Rapid Convergence towards Equilibrium. *Physical Review Letters*, **2017**, 119, 240603 | 7.4 | 12 |
| 81 | Momentum Distribution in the Unitary Bose Gas from First Principles. *Physical Review Letters*, **2016**, 117, 225301 | 7.4 | 6 |
| 80 | Cell-veto Monte Carlo algorithm for long-range systems. *Physical Review E*, **2016**, 94, 031302 | 2.4 | 12 |
| 79 | Coming Home from a MOOC. *Computing in Science and Engineering*, **2015**, 17, 91-95 | 1.5 | 4 |

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| 78 | Event-chain algorithm for the Heisenberg model: Evidence for z?1 dynamic scaling. *Physical Review E*, **2015**, 92, 063306 | 2.4 | 23 |
| 77 | Hard-sphere melting and crystallization with event-chain Monte Carlo. *Journal of Chemical Physics*, **2015**, 143, 084509 | 3.9 | 31 |
| 76 | Event-chain Monte Carlo for classical continuous spin models. *Europhysics Letters*, **2015**, 112, 20003 | 1.6 | 21 |
| 75 | Liquid-solid transitions in the three-body hard-core model. *Europhysics Letters*, **2015**, 109, 20003 | 1.6 | |
| 74 | Two-dimensional melting: from liquid-hexatic coexistence to continuous transitions. *Physical Review Letters*, **2015**, 114, 035702 | 7.4 | 168 |
| 73 | Generalized event-chain Monte Carlo: constructing rejection-free global-balance algorithms from infinitesimal steps. *Journal of Chemical Physics*, **2014**, 140, 054116 | 3.9 | 68 |
| 72 | Efimov-driven phase transitions of the unitary Bose gas. *Nature Communications*, **2014**, 5, 3503 | 17.4 | 41 |
| 71 | Sampling from a polytope and hard-disk Monte Carlo. *Journal of Physics: Conference Series*, **2013**, 454, 012031 | 0.3 | 13 |
| 70 | Hard-disk equation of state: first-order liquid-hexatic transition in two dimensions with three simulation methods. *Physical Review E*, **2013**, 87, 042134 | 2.4 | 162 |
| 69 | Addendum to "Event-chain Monte Carlo algorithms for hard-sphere systems". *Physical Review E*, **2012**, 86, 017701 | 2.4 | 10 |
| 68 | Two-step melting in two dimensions: first-order liquid-hexatic transition. *Physical Review Letters*, **2011**, 107, 155704 | 7.4 | 362 |
| 67 | Dynamics and thermodynamics of the low-temperature strongly interacting Bose gas. *Physical Review Letters*, **2011**, 107, 135301 | 7.4 | 95 |
| 66 | Damage spreading and coupling in Markov chains. *Europhysics Letters*, **2010**, 92, 60004 | 1.6 | 5 |
| 65 | Convergence and coupling for spin glasses and hard spheres. *Physical Review E*, **2010**, 81, 016705 | 2.4 | 3 |
| 64 | Equilibrium state of a trapped two-dimensional Bose gas. *Physical Review A*, **2010**, 82, | 2.6 | 48 |
| 63 | Universal correlations and coherence in quasi-two-dimensional trapped Bose gases. *Physical Review A*, **2010**, 81, | 2.6 | 19 |
| 62 | Event-chain Monte Carlo algorithms for hard-sphere systems. *Physical Review E*, **2009**, 80, 056704 | 2.4 | 103 |
| 61 | Thermal effects in the dynamics of disordered elastic systems. *Physica B: Condensed Matter*, **2009**, 404, 444-446 | 2.8 | 4 |

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| 60 | Creep dynamics of elastic manifolds via exact transition pathways. *Physical Review B*, **2009**, 79, | 3.3 | 65 |
| 59 | Kosterlitz-Thouless transition of the quasi-two-dimensional trapped Bose gas. *Physical Review Letters*, **2008**, 100, 190402 | 7.4 | 64 |
| 58 | Semiclassical theory of the quasi-two-dimensional trapped Bose gas. *Europhysics Letters*, **2008**, 82, 30001 | 1.6 | 35 |
| 57 | Renormalization group approach to exact sampling. *Physical Review Letters*, **2008**, 100, 060601 | 7.4 | 10 |
| 56 | Vacancy diffusion in the triangular-lattice dimer model. *Physical Review E*, **2008**, 78, 021112 | 2.4 | 3 |
| 55 | Universal width distributions in non-Markovian Gaussian processes. *Journal of Statistical Mechanics: Theory and Experiment*, **2007**, 2007, P02009-P02009 | 1.9 | 8 |
| 54 | Depinning exponents of the driven long-range elastic string. *Journal of Statistical Mechanics: Theory and Experiment*, **2007**, 2007, P01019-P01019 | 1.9 | 30 |
| 53 | Selective-pivot sampling of radial distribution functions in asymmetric liquid mixtures. *Molecular Physics*, **2007**, 105, 2393-2398 | 1.7 | 7 |
| 52 | Off-diagonal long-range order, cycle probabilities, and condensate fraction in the ideal Bose gas. *Physical Review E*, **2007**, 76, 051109 | 2.4 | 4 |
| 51 | Dynamics below the depinning threshold in disordered elastic systems. *Physical Review Letters*, **2006**, 97, 057001 | 7.4 | 74 |
| 50 | Critical exponents of the driven elastic string in a disordered medium. *Physical Review E*, **2005**, 71, 061604 | 2.4 | 51 |
| 49 | Cluster Monte Carlo Algorithms **2005**, 5-22 | | 2 |
| 48 | Geometry of Gaussian signals. *Journal of Statistical Mechanics: Theory and Experiment*, **2005**, 2005, L08001-L08001 | 1.9 | 35 |
| 47 | Variant Monte Carlo algorithm for driven elastic strings in random media. *Computer Physics Communications*, **2005**, 169, 188-191 | 4.2 | 2 |
| 46 | Width distribution of contact lines on a disordered substrate. *Physical Review E*, **2004**, 69, 035103 | 2.4 | 80 |
| 45 | Depinning of elastic manifolds. *Physical Review E*, **2003**, 67, 021602 | 2.4 | 79 |
| 44 | Coulomb and liquid dimer models in three dimensions. *Physical Review Letters*, **2003**, 91, 167004 | 7.4 | 171 |
| 43 | Universal interface width distributions at the depinning threshold. *Physical Review E*, **2003**, 68, 036128 | 2.4 | 38 |

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| 42 | Pocket Monte Carlo algorithm for classical doped dimer models. *Physical Review B*, **2003**, 67, | 3.3 | 41 |
| 41 | Roughness at the depinning threshold for a long-range elastic string. *Physical Review E*, **2002**, 65, 025101 | 2.4 | 111 |
| 40 | Monte Carlo dynamics of driven elastic strings in disordered media. *Physical Review B*, **2001**, 65, | 3.3 | 37 |
| 39 | Origin of the Roughness Exponent in Elastic Strings at the Depinning Threshold. *Physical Review Letters*, **2001**, 87, | 7.4 | 77 |
| 38 | Absence of thermodynamic phase transition in a model glass former. *Nature*, **2000**, 405, 550-1 | 50.4 | 140 |
| 37 | Yang-Mills integrals. *Classical and Quantum Gravity*, **2000**, 17, 1171-1179 | 3.3 | 8 |
| 36 | Coexistence of solutions in dynamical mean-field theory of the Mott transition. *Physical Review B*, **2000**, 62, 6860-6861 | 3.3 | 11 |
| 35 | Yang-Mills integrals for orthogonal, symplectic and exceptional groups. *Nuclear Physics B*, **2000**, 584, 641-655 | 2.8 | 25 |
| 34 | Phase separation in two-dimensional additive mixtures. *Physical Review E*, **1999**, 59, 2939-2941 | 2.4 | 22 |
| 33 | Precision Monte Carlo test of the Hartree-Fock approximation for a trapped Bose gas. *Physical Review A*, **1999**, 59, 2956-2961 | 2.6 | 60 |
| 32 | Eigenvalue distributions in Yang-Mills integrals. *Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics*, **1999**, 453, 253-257 | 4.2 | 34 |
| 31 | Transition Temperature of the Homogeneous, Weakly Interacting Bose Gas. *Physical Review Letters*, **1999**, 83, 2687-2690 | 7.4 | 84 |
| 30 | Monte Carlo approach to M-theory. *Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics*, **1998**, 431, 31-41 | 4.2 | 95 |
| 29 | Finite Yang-Mills integrals. *Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics*, **1998**, 435, 350-355 | 4.2 | 49 |
| 28 | Numerical Solution of Hard-Core Mixtures. *Physical Review Letters*, **1998**, 80, 3787-3790 | 7.4 | 61 |
| 27 | Two-dimensional QCD in the Wu-Mandelstam-Leibbrandt prescription. *Physical Review D*, **1998**, 57, 2456-2459 | 4.4 | 19 |
| 26 | Introduction to Monte Carlo algorithms **1998**, 1-35 | | 8 |
| 25 | Numerical Solutions of the Von Karman Equations for a Thin Plate. *International Journal of Modern Physics C*, **1997**, 08, 427-434 | 1.1 | 22 |

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|---|---|---|---|
| 24 | Quantum Monte Carlo Calculations for a Large Number of Bosons in a Harmonic Trap. *Physical Review Letters*, **1996**, 77, 3695-3699 | 7.4 | 125 |
| 23 | Dynamical mean-field theory of strongly correlated fermion systems and the limit of infinite dimensions. *Reviews of Modern Physics*, **1996**, 68, 13-125 | 40.5 | 4948 |
| 22 | Non-integrability of two-dimensional QCD. *Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics*, **1996**, 388, 808-812 | 4.2 | 19 |
| 21 | Aging without disorder on long time scales. *European Physical Journal B*, **1995**, 97, 127-131 | 1.2 | 26 |
| 20 | Cluster algorithm for hard spheres and related systems. *Journal of Physics A*, **1995**, 28, L597-L601 | | 99 |
| 19 | A rapid dynamical Monte Carlo algorithm for glassy systems. *Journal of Physics A*, **1994**, 27, L715-L720 | | 27 |
| 18 | Effect of a magnetic field on Mott-Hubbard systems. *Physical Review B*, **1994**, 50, 3092-3102 | 3.3 | 53 |
| 17 | Exact diagonalization approach to correlated fermions in infinite dimensions: Mott transition and superconductivity. *Physical Review Letters*, **1994**, 72, 1545-1548 | 7.4 | 485 |
| 16 | Physical properties of the half-filled Hubbard model in infinite dimensions. *Physical Review B*, **1993**, 48, 7167-7182 | 3.3 | 203 |
| 15 | Superconductivity in the two-band Hubbard model in infinite dimensions. *European Physical Journal B*, **1993**, 92, 313-321 | 1.2 | 52 |
| 14 | Numerical solution of the d=. *Physical Review Letters*, **1992**, 69, 1240-1243 | 7.4 | 213 |
| 13 | Gutzwiller wave function for a model of strongly interacting bosons. *Physical Review B*, **1992**, 45, 3137-3140 | 3.3 | 163 |
| 12 | Mott and Superfluid Transitions in a Strongly Interacting Lattice Boson System. *Europhysics Letters*, **1991**, 14, 627-632 | 1.6 | 136 |
| 11 | Bethe ansatz for the one-dimensional boson Hubbard model. *Physical Review B*, **1991**, 44, 9772-9775 | 3.3 | 44 |
| 10 | Superfluid-insulator transition in disordered boson systems. *Physical Review Letters*, **1991**, 67, 2307-2310 | 7.4 | 249 |
| 9 | Extensive Numerical Simulations of Weighted Matchings: Total Length and Distribution of Links in the Optimal Solution. *Europhysics Letters*, **1991**, 14, 295-301 | 1.6 | 13 |
| 8 | Storage capacity of memory networks with binary couplings. *Journal De Physique*, **1989**, 50, 3057-3066 | | 178 |
| 7 | Critical storage capacity of the J = ⍰ 1 neural network. *Journal of Physics A*, **1989**, 22, L519-L523 | | 53 |

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|---|---|---|---|
| 6 | The Cavity Method and the Travelling-Salesman Problem. *Europhysics Letters*, **1989**, 8, 213-218 | 1.6 | 49 |
| 5 | The roles of stability and symmetry in the dynamics of neural networks. *Journal of Physics A*, **1988**, 21, 2995-3011 | | 58 |
| 4 | Learning algorithms with optimal stability in neural networks. *Journal of Physics A*, **1987**, 20, L745-L752 | | 276 |
| 3 | Laser with large photon correlation times. *Physical Review A*, **1987**, 35, 2523-2531 | 2.6 | 11 |
| 2 | Linewidths of lasers with broken polarization symmetry. *Physical Review A*, **1987**, 35, 4192-4199 | 2.6 | 9 |
| 1 | Direction-sweep Markov chains. *Journal of Physics A: Mathematical and Theoretical*, | 2 | 2 |