

# Sergio Caracciolo

## List of Publications by Year in descending order

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160  
papers

2,678  
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257101

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163  
all docs

163  
docs citations

163  
times ranked

836  
citing authors



#	ARTICLE	IF	CITATIONS
19	Scaling hypothesis for the Euclidean bipartite matching problem. II. Correlation functions. Physical Review E, 2015, 91, 062125.	0.8	25
20	Quadratic Stochastic Euclidean Bipartite Matching Problem. Physical Review Letters, 2015, 115, 230601.	2.9	18
21	Replica symmetry breaking in cold atoms and spin glasses. Physical Review B, 2015, 91, .	1.1	19
22	Deterministic Abelian Sandpile and Square-Triangle Tilings. Springer INdAM Series, 2015, , 127-136.	0.4	2
23	Noncommutative determinants, Cauchy-Binet formulae, and Capelli-type identities II. Grassmann and quantum oscillator algebra representation. Annales De L'Institut Henri Poincare (D) Combinatorics, Physics and Their Interactions, 2014, 1, 1-46.	0.6	1
24	One-dimensional Euclidean matching problem: Exact solutions, correlation functions, and universality. Physical Review E, 2014, 90, 042112.	0.8	19
25	Scaling hypothesis for the Euclidean bipartite matching problem. Physical Review E, 2014, 90, 012118.	0.8	50
26	Correlation function for the Grid-Poisson Euclidean matching on a line and on a circle. Journal of Statistical Mechanics: Theory and Experiment, 2014, 2014, P11023.	0.9	18
27	Algebraic/combinatorial proofs of Cayley-type identities for derivatives of determinants and pfaffians. Advances in Applied Mathematics, 2013, 50, 474-594.	0.4	24
28	Growth and form of melanoma cell colonies. Journal of Statistical Mechanics: Theory and Experiment, 2013, 2013, P02032.	0.9	11
29	Transfer matrix for Kogut-Susskind fermions in the spin basis. Physical Review D, 2013, 87, .	1.6	2
30	Diquarks in the nilpotency expansion of QCD and their role at finite chemical potential. Physical Review D, 2012, 85, .	1.6	5
31	Exact integration of height probabilities in the Abelian Sandpile model. Journal of Statistical Mechanics: Theory and Experiment, 2012, 2012, P09013.	0.9	15
32	Multiple and inverse topplings in the Abelian Sandpile Model. European Physical Journal: Special Topics, 2012, 212, 23-44.	1.2	11
33	Chiral symmetry breaking and quark confinement in the nilpotency expansion of QCD. Physical Review D, 2011, 83, .	1.6	2
34	Geometrical properties of two-dimensional interacting self-avoiding walks at the $\hat{1}_3$ -point. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 115004.	0.7	30
35	Conservation laws for strings in the Abelian Sandpile Model. Europhysics Letters, 2010, 90, 60003.	0.7	15
36	Exact sampling of corrugated surfaces. Journal of Statistical Mechanics: Theory and Experiment, 2009, 2009, P02049.	0.9	0

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37	Spanning Forests on Random Planar Lattices. <i>Journal of Statistical Physics</i> , 2009, 135, 1063-1104.	0.5	8
38	Bogoliubov transformations and fermion condensates in lattice field theories. <i>Annals of Physics</i> , 2009, 324, 584-599.	1.0	7
39	Phase transition in the spanning-hyperforest model on complete hypergraphs. <i>Nuclear Physics B</i> , 2009, 822, 493-516.	0.9	2
40	Noncommutative determinants, Cauchy&ndash;Binet formulae, and Capelli-type identities I. Generalizations of the Capelli and Turnbull identities. <i>Electronic Journal of Combinatorics</i> , 2009, 16, .	0.2	12
41	Third Virial Coefficient for 4â€Arm and 6â€Arm Star Polymers. <i>Macromolecular Theory and Simulations</i> , 2008, 17, 67-72.	0.6	15
42	Explicit characterization of the identity configuration in an Abelian sandpile model. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2008, 41, 495003.	0.7	20
43	Hyperforests on the complete hypergraph by Grassmann integral representation. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2008, 41, 205003.	0.7	5
44	Two-parameter model predictions and $\hat{1}_1$ -point crossover for linear-polymer solutions. <i>Journal of Chemical Physics</i> , 2008, 128, 065104.	1.2	12
45	Composite boson dominance in relativistic field theories. <i>Journal of High Energy Physics</i> , 2007, 2007, 034-034.	1.6	10
46	Grassmann integral representation for spanning hyperforests. <i>Journal of Physics A: Mathematical and Theoretical</i> , 2007, 40, 13799-13835.	0.7	15
47	Renormalization flow for unrooted forests on a triangular lattice. <i>Nuclear Physics B</i> , 2007, 787, 260-282.	0.9	10
48	Virial coefficients and osmotic pressure in polymer solutions in good-solvent conditions. <i>Journal of Chemical Physics</i> , 2006, 125, 094903.	1.2	45
49	Large- chiral transition in the Yukawa model. <i>Nuclear Physics B</i> , 2006, 741, 421-440.	0.9	4
50	Polymer size in dilute solutions in the good-solvent regime. <i>Journal of Chemical Physics</i> , 2006, 125, 094904.	1.2	12
51	The $O(n)$ vector model at $n=1, 2$ on random planar lattices: a direct combinatorial derivation. <i>Journal of Statistical Mechanics: Theory and Experiment</i> , 2005, 2005, L02002.	0.9	0
52	Correction-to-Scaling Exponents for Two-Dimensional Self-Avoiding Walks. <i>Journal of Statistical Physics</i> , 2005, 120, 1037-1100.	0.5	45
53	Critical behavior of the two-dimensional randomly driven lattice gas. <i>Physical Review E</i> , 2005, 72, 056111.	0.8	11
54	Two-dimensional Heisenberg model with nonlinear interactions: corrections. <i>Nuclear Physics B</i> , 2005, 707, 458-492.	0.9	9

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55	General duality for Abelian-group-valued statistical-mechanics models. Journal of Physics A, 2004, 37, 7407-7432.	1.6	4
56	Reply to the "Comment on "Transverse fluctuations in the driven lattice gas". Journal of Physics A, 2004, 37, 8193-8195.	1.6	1
57	Comment on "Dynamic Behavior of Anisotropic Nonequilibrium Driving Lattice Gases". Physical Review Letters, 2004, 92, 029601; author reply 029602.	2.9	15
58	Finite-Size Scaling in the Driven Lattice Gas. Journal of Statistical Physics, 2004, 115, 281-322.	0.5	24
59	Fermionic Field Theory for Trees and Forests. Physical Review Letters, 2004, 93, 080601.	2.9	50
60	Shape dependence of the finite-size scaling limit in a strongly anisotropic $\mathbb{O}(\infty)$ model. European Physical Journal B, 2003, 34, 205-217.	0.6	12
61	Transverse fluctuations in the driven lattice gas. Journal of Physics A, 2003, 36, L315-L320.	1.6	14
62	Dynamic critical behavior of an extended reptation dynamics for self-avoiding walks. Physical Review E, 2002, 65, 031106.	0.8	9
63	An exactly solvable random satisfiability problem. Journal of Physics A, 2002, 35, 7661-7688.	1.6	4
64	Two-dimensional Heisenberg model with nonlinear interactions. Physical Review E, 2002, 66, 016120.	0.8	13
65	High-accuracy two-loop computation of the critical mass for Wilson fermions. Nuclear Physics, Section B, Proceedings Supplements, 2002, 106-107, 835-837.	0.5	0
66	Spin models on Platonic solids and asymptotic freedom. Nuclear Physics, Section B, Proceedings Supplements, 2002, 106-107, 902-904.	0.5	2
67	Asymptotically free models and discrete non-Abelian groups. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 513, 223-231.	1.5	18
68	Lattice QCD and chiral mesons. Nuclear Physics, Section B, Proceedings Supplements, 2001, 94, 729-732.	0.5	0
69	Crossover phenomena in spin models with medium-range interactions and self-avoiding walks with medium-range jumps. Physical Review E, 2001, 64, 046130.	0.8	10
70	Two-loop critical mass for Wilson fermions. Physical Review D, 2001, 64, .	1.6	14
71	Composite operators from the operator product expansion: what can go wrong?. Nuclear Physics, Section B, Proceedings Supplements, 2000, 83-84, 875-877.	0.5	1
72	Bilocal Dynamics for Self-Avoiding Walks. Journal of Statistical Physics, 2000, 100, 1111-1145.	0.5	10

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73	Operator product expansion on the lattice: a numerical test in the two-dimensional non-linear sigma-model. Journal of High Energy Physics, 2000, 2000, 045-045.	1.6	7
74	End-to-end distribution function for dilute polymers. Journal of Chemical Physics, 2000, 112, 7693-7710.	1.2	21
75	Monte Carlo Simulation of the Three-Dimensional Ising Spin Glass. Springer Proceedings in Physics, 2000, , 162-166.	0.1	0
76	Composite operators from the operator product expansion: what can go wrong?. Nuclear Physics, Section B, Proceedings Supplements, 2000, 83-84, 875-877.	0.5	0
77	Determination of the exponent for SAWs on the two-dimensional Manhattan lattice. Journal of Physics A, 1999, 32, 2931-2948.	1.6	22
78	Universal Finite-Size Scaling Functions in the 3D Ising Spin Glass. Physical Review Letters, 1999, 82, 5128-5131.	2.9	141
79	Crossover scaling from classical to non-classical critical behaviour. Nuclear Physics, Section B, Proceedings Supplements, 1999, 73, 757-762.	0.5	7
80	Operator product expansion and non-perturbative renormalization. Nuclear Physics, Section B, Proceedings Supplements, 1999, 73, 273-275.	0.5	1
81	Finite size scaling in 3D Ising spin glasses. Computer Physics Communications, 1999, 121-122, 180-182.	3.0	0
82	Testing the efficiency of different improvement programs. Nuclear Physics B, 1999, 556, 295-326.	0.9	2
83	Monte Carlo results for three-dimensional self-avoiding walks. Nuclear Physics, Section B, Proceedings Supplements, 1998, 63, 652-654.	0.5	6
84	Use of even grassmann variables to construct effective actions for mesons. Nuclear Physics, Section B, Proceedings Supplements, 1998, 63, 790-792.	0.5	2
85	High-precision computation of two-loop Feynman diagrams with Wilson fermions. Nuclear Physics, Section B, Proceedings Supplements, 1998, 63, 802-804.	0.5	4
86	Improved actions for the two-dimensional $\phi^4$ -model. Nuclear Physics, Section B, Proceedings Supplements, 1998, 63, 916-918.	0.5	0
87	A free action for pions as quark composites. Nuclear Physics B, 1998, 512, 505-519.	0.9	5
88	High-precision determination of the critical exponent $\hat{\nu}$ for self-avoiding walks. Physical Review E, 1998, 57, R1215-R1218.	0.8	61
89	Corrections to finite-size scaling in the lattice N-vector model for $N \rightarrow \infty$ . Physical Review D, 1998, 58, .	1.6	40
90	Universality of subleading corrections for self-avoiding walks in the presence of one-dimensional defects. Journal of Physics A, 1997, 30, 4939-4961.	1.6	4

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91	Comparing different improvement programs for the N-vector model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 402, 335-340.	1.5	7
92	Corrections to finite-size scaling in two-dimensional O(N) $\phi^4$ -models. Nuclear Physics, Section B, Proceedings Supplements, 1997, 53, 693-695.	0.5	2
93	How to compute one-loop Feynman diagrams in lattice QCD with Wilson fermions. Nuclear Physics, Section B, Proceedings Supplements, 1997, 53, 794-796.	0.5	2
94	Algebraic algorithm for the computation of one-loop Feynman diagrams in lattice QCD with Wilson fermions. Nuclear Physics B, 1996, 478, 687-719.	0.9	19
95	Comparison between theoretical four-loop predictions and Monte Carlo calculations in the two-dimensional N-vector model for N = 3, 4, 8. Nuclear Physics, Section B, Proceedings Supplements, 1996, 47, 763-766.	0.5	11
96	Caracciolo et al. Reply. Physical Review Letters, 1996, 76, 1179-1179.	2.9	7
97	New method for the extrapolation of finite-size data to infinite volume. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 749-751.	0.5	2
98	Two-dimensional O(3) $\phi^4$ -model up to correlation length 105. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 752-754.	0.5	8
99	Asymptotic Scaling in the Two-Dimensional O(3) $\phi^4$ Model at Correlation Length 105. Physical Review Letters, 1995, 75, 1891-1894.	2.9	88
100	Extrapolating Monte Carlo Simulations to Infinite Volume: Finite-Size Scaling at $t^3/L^4 \ll 1$ . Physical Review Letters, 1995, 74, 2969-2972.	2.9	91
101	Four-loop perturbative expansion for the lattice N-vector model. Nuclear Physics B, 1995, 455, 619-647.	0.9	31
102	A general limitation on Monte Carlo algorithms of the Metropolis type. Physical Review Letters, 1994, 72, 179-182.	2.9	12
103	Random walks with short-range interaction and mean-field behavior. Journal of Statistical Physics, 1994, 77, 519-543.	0.5	18
104	New universality classes for two-dimensional $\phi^4$ -models. Nuclear Physics, Section B, Proceedings Supplements, 1994, 34, 129-134.	0.5	5
105	Analytic results for mixed O(N)-RPN $\phi^4$ -models in two dimensions. Nuclear Physics, Section B, Proceedings Supplements, 1994, 34, 683-685.	0.5	5
106	Lattice perturbation theory for O(N)-symmetric $\phi^4$ -models with general nearest-neighbour action (I). Conventional perturbation theory. Nuclear Physics B, 1994, 420, 141-183.	0.9	31
107	Possible failure of asymptotic freedom in two-dimensional RP2 and RP3 $\phi^4$ -models. Nuclear Physics, Section B, Proceedings Supplements, 1993, 30, 815-818.	0.5	22
108	Wolff-type embedding algorithms for general nonlinear $\phi^4$ -models. Nuclear Physics B, 1993, 403, 475-541.	0.9	63

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109	New universality classes for two-dimensional $\tilde{f}$ -models. Physical Review Letters, 1993, 71, 3906-3909.	2.9	39
110	One-loop analytic computation of the energy-momentum tensor for lattice gauge theories. Nuclear Physics B, 1992, 375, 195-239.	0.9	39
111	Join- and-cut algorithm for self-avoiding walks with variable length and free endpoints. Journal of Statistical Physics, 1992, 67, 65-111.	0.5	18
112	Replica symmetry breaking and Monte Carlo simulations for spin glasses. Physica A: Statistical Mechanics and Its Applications, 1992, 185, 261-270.	1.2	1
113	Analytic determination of dimension-4 composite operators in QCD. Nuclear Physics, Section B, Proceedings Supplements, 1992, 26, 409-411.	0.5	0
114	Dynamic critical behaviour of Wolff's algorithm for RPN $\tilde{f}$ -models. Nuclear Physics, Section B, Proceedings Supplements, 1992, 26, 595-597.	0.5	6
115	Analytic determination at one loop of the energy-momentum tensor for lattice QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1991, 260, 401-406.	1.5	7
116	One loop conserved energy momentum tensor for lattice QCD. Nuclear Physics, Section B, Proceedings Supplements, 1991, 20, 36-39.	0.5	1
117	Non-local Monte Carlo algorithm for self-avoiding walks with variable length and free endpoints. Nuclear Physics, Section B, Proceedings Supplements, 1991, 20, 68-71.	0.5	2
118	Generalized Wolff-type embedding algorithms for nonlinear $\tilde{f}$ -models. Nuclear Physics, Section B, Proceedings Supplements, 1991, 20, 72-75.	0.5	9
119	Dynamic critical exponent of the BFACF algorithm for self-avoiding walks. Journal of Statistical Physics, 1991, 63, 857-865.	0.5	8
120	Title is missing!. Journal of Physics A, 1991, 24, 3625-3639.	1.6	14
121	On computer simulations for spin glasses to test mean field predictions. Journal De Physique, I, 1991, 1, 627-628.	1.2	9
122	Ising spin-glasses in a magnetic field in 3 dimensions. Nuclear Physics, Section B, Proceedings Supplements, 1990, 17, 577-580.	0.5	0
123	The restoration of poincaré invariance and the energy momentum tensor in lattice gauge theories. Nuclear Physics, Section B, Proceedings Supplements, 1990, 17, 611-614.	0.5	2
124	The trace anomaly and the energy momentum tensor in lattice gauge theories. Nuclear Physics, Section B, Proceedings Supplements, 1990, 16, 557-558.	0.5	0
125	Nonlocal Monte Carlo algorithm for self-avoiding walks with fixed endpoints. Journal of Statistical Physics, 1990, 60, 1-53.	0.5	50
126	The energy-momentum tensor for lattice gauge theories. Annals of Physics, 1990, 197, 119-153.	1.0	60



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127	Low temperature behaviour of 3-D spin glasses in a magnetic field. Journal De Physique, 1990, 51, 1877-1895.	1.8	53
128	3d Ising Spin-Glasses in a Magnetic Field and Mean-Field Theory. Europhysics Letters, 1990, 11, 783-789.	0.7	85
129	Universal distance ratios for two-dimensional self-avoiding walks: corrected conformal-invariance predictions. Journal of Physics A, 1990, 23, L969-L974.	1.6	23
130	Monte Carlo test of a hyperscaling relation for the two-dimensional self-avoiding walk. II. Journal of Physics A, 1990, 23, 4509-4517.	1.6	7
131	From Lattice Gauge Theory Towards Gravity. NATO ASI Series Series B: Physics, 1990, , 37-54.	0.2	1
132	Entropy ultrametric for dynamical and disordered systems. Journal De Physique, 1989, 50, 2919-2930.	1.8	2
133	Renormalization of the energy-momentum tensor and the trace anomaly in lattice QED. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1989, 228, 375-378.	1.5	13
134	Performance of new algorithms for self-avoiding walks with fixed endpoints. Nuclear Physics, Section B, Proceedings Supplements, 1989, 9, 525-528.	0.5	2
135	The energy-momentum tensor on the lattice. Nuclear Physics, Section B, Proceedings Supplements, 1989, 9, 604-608.	0.5	1
136	Effects of frustration on the orderings of multi-valued spin systems. Physics Letters, Section A: General, Atomic and Solid State Physics, 1988, 126, 233-238.	0.9	16
137	Nonperturbative lattice gravity. Nuclear Physics, Section B, Proceedings Supplements, 1988, 4, 78-82.	0.5	4
138	A numerical investigation about quantum measure in lattice gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 207, 468-470.	1.5	12
139	The energy-momentum tensor on the lattice: The scalar case. Nuclear Physics B, 1988, 309, 612-624.	0.9	28
140	Phases and topological structures of de Sitter lattice gravity. Nuclear Physics B, 1988, 299, 693-718.	0.9	18
141	Lattice supergravity and graviton-gravitino doubling. Nuclear Physics B, 1988, 296, 868-876.	0.9	4
142	Phase Diagram for a Ferromagnetic System with Potts Symmetry in Four Dimensions. Europhysics Letters, 1987, 4, 7-14.	0.7	7
143	Monte Carlo test of a hyperscaling relation for the two-dimensional self-avoiding walk. Journal of Physics A, 1987, 20, 2569-2576.	1.6	11
144	Analysis of the critical behaviour of de Sitter quantum gravity on a hypercubic lattice. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1987, 193, 237-240.	1.5	13

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145	Optimisation of the potential shifting in the Martinelli-Parisi expansion of the Z(2) gauge theory on a cubic lattice. Journal of Physics A, 1986, 19, 1229-1234.	1.6	2
146	Dynamic critical exponent of some Monte Carlo algorithms for the self-avoiding walk. Journal of Physics A, 1986, 19, L797-L805.	1.6	27
147	A new Monte Carlo simulation for two models of self-avoiding lattice trees in two dimensions. Journal of Statistical Physics, 1985, 41, 95-114.	0.5	10
148	Change of variables in the stochastic quantization. Nuclear Physics B, 1985, 260, 381-390.	0.9	12
149	Bifurcations and convergence of the Martinelli-Parisi expansion in the 2d Potts model. Nuclear Physics B, 1985, 251, 50-60.	0.9	3
150	How to make a choice in the whole class of Martinelli-Parisi expansions for renormalization group transformations. Nuclear Physics B, 1985, 257, 77-84.	0.9	3
151	A success of the Martinelli-Parisi expansion: the crossover to first-order transition in the 2D Potts model. Journal of Physics A, 1984, 17, 3533-3537.	1.6	2
152	Polymers and $\phi^4$ theory in four dimensions. Nuclear Physics B, 1983, 215, 209-248.	0.9	246
153	Accurate results for the near critical properties of the Ising and non-linear $\sigma$ -models by the introduction of a potential shift. Nuclear Physics B, 1983, 225, 466-474.	0.9	1
154	A new Monte-Carlo approach to the critical properties of self-avoiding random walks. Journal De Physique, 1983, 44, 323-331.	1.8	76
155	Variational real space renormalization group and its application to frustrated systems. Nuclear Physics B, 1982, 205, 345-354.	0.9	4
156	The propagator in the $A_0 = 0$ gauge. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1982, 113, 311-314.	1.5	119
157	Improved Migdal recursion formula for the Ising model in two dimensions on a triangular lattice. Nuclear Physics B, 1981, 180, 405-416.	0.9	17
158	A quantitative analysis of the Migdal-Kadanoff renormalization scheme for SU(2) gauge theory. Nuclear Physics B, 1981, 180, 428-438.	0.9	15
159	Phases of renormalized lattice gauge theories with fermions. Annals of Physics, 1979, 122, 74-101.	1.0	16
160	Phase transitions and renormalized structure of lattice gauge theories with fermions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1978, 77, 275-278.	1.5	3