

Simon M Catterall

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

2,034
citations

236612

25
h-index

243296

44
g-index

81
all docs

81
docs citations

81
times ranked

3266
citing authors

#	ARTICLE	IF	CITATIONS
1	Chiral lattice fermions from staggered fields. <i>Physical Review D</i> , 2021, 104, .	1.6	12
2	Anomalies and symmetric mass generation for Kähler-Dirac fermions. <i>Physical Review D</i> , 2021, 104, .	1.6	17
3	Symmetric Mass Generation in Lattice Gauge Theory. <i>Symmetry</i> , 2021, 13, 2276.	1.1	6
4	Tensor network formulation of the massless Schwinger model with staggered fermions. <i>Physical Review D</i> , 2020, 101, .	1.6	24
5	Three-dimensional super-Yang-Mills theory on the lattice and dual black branes. <i>Physical Review D</i> , 2020, 102, .	1.6	10
6	Lattice $\mathcal{N} = 4$ super Yang-Mills at strong coupling. <i>Journal of High Energy Physics</i> , 2020, 2020, 1.	1.6	3
7	Tensor renormalization group study of the non-Abelian Higgs model in two dimensions. <i>Physical Review D</i> , 2019, 99, .	1.6	32
8	Simulations of $SU(2)$ lattice gauge theory with dynamical reduced staggered fermions. <i>Physical Review D</i> , 2019, 99, .	1.6	1
9	Lattice gauge theory for physics beyond the Standard Model. <i>European Physical Journal A</i> , 2019, 55, 1.	1.0	23
10	$SU(4)$ Tj ETQq0 0 0 rgBT /Overlock 10.6f 50 377Td (stret staggered fermions. <i>Physical Review D</i> , 2018, 98, .		
11	Truncation of lattice $N = 4$ super Yang-Mills. <i>EPJ Web of Conferences</i> , 2018, 175, 11008.	0.1	2
12	Topological fermion condensates from anomalies. <i>Journal of High Energy Physics</i> , 2018, 2018, 1.	1.6	17
13	Two dimensional super QCD on a lattice. <i>EPJ Web of Conferences</i> , 2018, 175, 08005.	0.1	0
14	Testing the holographic principle using lattice simulations. <i>EPJ Web of Conferences</i> , 2018, 175, 08004.	0.1	8
15	Removal of the trace mode in lattice $N=4$ super Yang-Mills theory. <i>Physical Review D</i> , 2018, 98, .	1.6	2
16	Testing holography using lattice super-Yang-Mills theory on a 2-torus. <i>Physical Review D</i> , 2018, 97, .	1.6	24
17	Topology and strong four fermion interactions in four dimensions. <i>Physical Review D</i> , 2018, 97, .	1.6	16
18	Nonperturbative study of dynamical SUSY breaking in $N=(2,2)$ Yang-Mills theory. <i>Physical Review D</i> , 2018, 97, .	1.6	10

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19	Maximally Supersymmetric Yang-Mills on the Lattice. , 2018, , .		3
20	Novel phases in strongly coupled four-fermion theories. Physical Review D, 2017, 96, .	1.6	23
21	Maximally supersymmetric Yang-Mills on the lattice. International Journal of Modern Physics A, 2017, 32, 1747019.	0.5	7
22	Supersymmetry on the lattice. International Journal of Modern Physics A, 2016, 31, 1643005.	0.5	18
23	Fermion mass without symmetry breaking. Journal of High Energy Physics, 2016, 2016, 1.	1.6	40
24	Lifting flat directions in lattice supersymmetry. Journal of High Energy Physics, 2015, 2015, 1.	1.6	18
25	Spontaneous supersymmetry breaking in two dimensional lattice super QCD. Journal of High Energy Physics, 2015, 2015, 1.	1.6	8
26	Supersymmetry on a Lattice. Journal of Physics: Conference Series, 2015, 640, 012050.	0.3	0
27	A complete lattice technicolor model. International Journal of Modern Physics A, 2014, 29, 1445002.	0.5	0
28	$N=4$ supersymmetry on a space-time lattice. Physical Review D, 2014, 90, .	1.6	32
29	Real space renormalization group for twisted lattice $N=4$ super Yang-Mills. Journal of High Energy Physics, 2014, 2014, 1.	1.6	19
30	Twisted supersymmetries in lattice $N=4$ super Yang-Mills theory. Journal of High Energy Physics, 2013, 2013, 1.	1.6	23
31	Four fermion interactions in non-Abelian gauge theory. Physical Review D, 2013, 87, .	1.6	6
32	Dynamical gauge symmetry breaking in strongly coupled lattice theories. Physical Review D, 2013, 88, .	1.6	4
33	Gauge theory duals of black hole/black string transitions of gravitational theories on a circle. Journal of Physics: Conference Series, 2013, 462, 012022.	0.3	4
34	Supersymmetric lattices. Journal of Physics: Conference Series, 2013, 462, 012006.	0.3	1
35	Monte Carlo renormalization group minimal walking technicolor. Physical Review D, 2012, 85, .	1.6	32
36	Non-Abelian gauged Nambu-Jona-Lasinio models on the lattice. Physical Review D, 2012, 86, .	1.6	9

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37	Phase structure of lattice $\mathcal{N}=4$ super Yang-Mills. Journal of High Energy Physics, 2012, 2012, 1.	1.6	22
38	An object oriented code for simulating supersymmetric Yang-Mills theories. Computer Physics Communications, 2012, 183, 1336-1353.	3.0	13
39	On the sign problem in 2D lattice super Yang-Mills. Journal of High Energy Physics, 2012, 2012, 1.	1.6	26
40	Perturbative renormalization of lattice $\mathcal{N} = 4$ super Yang-Mills theory. Journal of High Energy Physics, 2011, 2011, 1.	1.6	41
41	Extracting black hole physics from the lattice. Journal of High Energy Physics, 2010, 2010, 1.	1.6	54
42	Topological gravity on the lattice. Journal of High Energy Physics, 2010, 2010, 1.	1.6	2
43	Realization of center symmetry in two adjoint flavor large-N Yang-Mills. Journal of High Energy Physics, 2010, 2010, 1.	1.6	19
44	First results from lattice simulation of the PWMM. Journal of High Energy Physics, 2010, 2010, 1.	1.6	20
45	Thermal phases of D1-branes on a circle from lattice super Yang-Mills. Journal of High Energy Physics, 2010, 2010, 1.	1.6	49
46	First results from simulations of supersymmetric lattices. Journal of High Energy Physics, 2009, 2009, 040-040.	1.6	33
47	Exact lattice supersymmetry. Physics Reports, 2009, 484, 71-130.	10.3	131
48	Lattice super-Yang-Mills using domain wall fermions in the chiral limit. Physical Review D, 2009, 79, .	1.6	37
49	Lattice actions for Yang-Mills quantum mechanics with exact supersymmetry. Physical Review D, 2008, 77, .	1.6	8
50	Black hole thermodynamics from simulations of lattice Yang-Mills theory. Physical Review D, 2008, 78, .	1.6	84
51	From twisted supersymmetry to orbifold lattices. Journal of High Energy Physics, 2008, 2008, 048-048.	1.6	61
52	Phase diagram of $\mathcal{N}=2$ with 2 flavors of dynamical adjoint quarks. Journal of High Energy Physics, 2008, 2008, 009-009.	1.6	126
53	Glueballs Condensing at the CCNI: 4096 CPUs Weigh In. , 2008, , .		2
54	On the restoration of supersymmetry in twisted two-dimensional lattice Yang-Mills theory. Journal of High Energy Physics, 2007, 2007, 015-015.	1.6	16

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55	Minimal walking on the lattice. Physical Review D, 2007, 76, .	1.6	161
56	Critique of the link approach to exact lattice supersymmetry. Physical Review D, 2007, 75, .	1.6	25
57	Towards lattice simulation of the gauge theory duals to black holes and hot strings. Journal of High Energy Physics, 2007, 2007, 104-104.	1.6	81
58	Simulations of Script $N = 2$ super Yang-Mills theory in two dimensions. Journal of High Energy Physics, 2006, 2006, 032-032.	1.6	32
59	Twisted supersymmetric sigma model on the lattice. Journal of High Energy Physics, 2006, 2006, 063-063.	1.6	20
60	Lattice Supersymmetry via Twisting. Nuclear Physics, Section B, Proceedings Supplements, 2005, 140, 751-753.	0.5	6
61	Lattice formulation of Script $N = 4$ super Yang-Mills theory. Journal of High Energy Physics, 2005, 2005, 027-027.	1.6	67
62	Dirac-Kahler fermions and exact lattice supersymmetry. , 2005, , .		6
63	Lattice Sigma Models with Exact Supersymmetry. Journal of High Energy Physics, 2004, 2004, 044-044.	1.6	42
64	A geometrical approach to $N=2$ super Yang-Mills theory on the two dimensional lattice. Journal of High Energy Physics, 2004, 2004, 006-006.	1.6	91
65	Lattice study of the two-dimensional Wess-Zumino model. Physical Review D, 2003, 68, .	1.6	40
66	Lattice supersymmetry and topological field theory. Journal of High Energy Physics, 2003, 2003, 038-038.	1.6	83
67	Exact lattice supersymmetry: The two-dimensional $N=2$ Wess-Zumino model. Physical Review D, 2002, 65, .	1.6	79
68	Testing a Fourier-accelerated hybrid Monte Carlo algorithm. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 528, 301-305.	1.5	16
69	The Ising model on a dynamically triangulated disk with a boundary magnetic field. Nuclear Physics B, 2001, 614, 467-493.	0.9	0
70	SUPERSYMMETRY ON THE LATTICE. , 2001, , .		0
71	SimScience: Interactive educational modules based on large simulations. Computer Physics Communications, 2000, 127, 1-5.	3.0	3
72	A lattice path integral for supersymmetric quantum mechanics. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 487, 349-356.	1.5	48

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73	Phase diagram of four-dimensional dynamical triangulations with a boundary. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 493, 389-394.	1.5	2
74	The Ising model on a fluctuating disk. , 1999, , .		0
75	Phase diagram of three-dimensional dynamical triangulations with a boundary. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 442, 266-272.	1.5	3
76	Phase structure of 3D dynamical triangulations with a boundary. , 1998, , .		1
77	Investigation by Monte Carlo renormalization of 2-D simplicial quantum gravity coupled to Gaussian matter. , 1998, , .		0
78	Java simulations for physics education. , 1997, 9, 477-484.		4
79	A RG transformation for dynamical triangulations. Nuclear Physics, Section B, Proceedings Supplements, 1996, 47, 629-632.	0.5	0
80	Non-perturbative renormalization group flows in two-dimensional quantum gravity. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 345, 422-428.	1.5	9