

# Simon Hands

## List of Publications by Year in descending order

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112  
papers

2,910  
citations

185998

28  
h-index

174990

52  
g-index

113  
all docs

113  
docs citations

113  
times ranked

1074  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectral Functions at Small Energies and the Electrical Conductivity in Hot Quenched Lattice QCD. Physical Review Letters, 2007, 99, 022002.	2.9	215
2	Electrical Conductivity of the Quark-Gluon Plasma Across the Deconfinement Transition. Physical Review Letters, 2013, 111, 172001.	2.9	173
3	Four-Fermi Theories in Fewer Than Four Dimensions. Annals of Physics, 1993, 224, 29-89.	1.0	144
4	Electrical conductivity and charge diffusion in thermal QCD from the lattice. Journal of High Energy Physics, 2015, 2015, 1.	1.6	143
5	Numerical study of dense adjoint matter in two color QCD. European Physical Journal C, 2000, 17, 285-302.	1.4	124
6	Quantum critical behavior in a graphenelike model. Physical Review B, 2008, 78, .	1.1	119
7	Symmetries and spectrum of SU(2) lattice gauge theory at finite chemical potential. Nuclear Physics B, 1999, 558, 327-346.	0.9	118
8	Deconfinement in dense two-color QCD. European Physical Journal C, 2006, 48, 193-206.	1.4	111
9	Monte Carlo simulation of the semimetal-insulator phase transition in monolayer graphene. Physical Review B, 2010, 81, .	1.1	91
10	Noncompact three-dimensional quantum electrodynamics with $N_f=1$ and $N_f=4$ . Physical Review B, 2004, 70, .	1.1	88
11	Study of QCD Thermodynamics at Finite Density by Taylor Expansion. Progress of Theoretical Physics Supplement, 2004, 153, 118-126.	0.2	83
12	Cold atoms meet lattice gauge theory. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2022, 380, 20210064.	1.6	72
13	Quarkyonic phase in dense two color matter. Physical Review D, 2010, 81, .	1.6	70
14	Light baryons below and above the deconfinement transition: medium effects and parity doubling. Journal of High Energy Physics, 2017, 2017, 1.	1.6	66
15	Towards the phase diagram of dense two-color matter. Physical Review D, 2013, 87, .	1.6	63
16	Critical flavor number in the three dimensional Thirring model. Physical Review D, 2007, 75, .	1.6	48
17	Effective monopoles in noncompact lattice QED. Physical Review Letters, 1989, 63, 2169-2172.	2.9	40
18	The equation of state and critical exponents in quenched strongly coupled QED. Nuclear Physics B, 1990, 347, 217-242.	0.9	40

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19	Diquark condensation in dense adjoint matter. <i>European Physical Journal C</i> , 2001, 22, 451-461.	1.4	40
20	Nucleons and parity doubling across the deconfinement transition. <i>Physical Review D</i> , 2015, 92, .	1.6	39
21	Finite size effects and chiral symmetry breaking in quenched three-dimensional QED. <i>Nuclear Physics B</i> , 1990, 335, 455-468.	0.9	38
22	$O(1/N_f)$ corrections to the Thirring model in $2 < d < 4$ . <i>Physical Review D</i> , 1995, 51, 5816-5826.	1.6	36
23	QCD with chemical potential in a small hyperspherical box. <i>Journal of High Energy Physics</i> , 2010, 2010, 1.	1.6	34
24	Monte Carlo simulation of monolayer graphene at nonzero temperature. <i>Physical Review B</i> , 2011, 84, .	1.1	34
25	Gross's "Neveu" Wilson model and correlated symmetry-protected topological phases. <i>Annals of Physics</i> , 2018, 399, 149-180.	1.0	32
26	Compositeness, anomalous dimensions and renormalizability in four-Fermi theories. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1991, 273, 111-117.	1.5	31
27	The phase diagram of QCD. <i>Contemporary Physics</i> , 2001, 42, 209-225.	0.8	31
28	Towards the chiral limit of strongly coupled quenched QED. <i>Nuclear Physics B</i> , 1990, 333, 551-580.	0.9	29
29	Hadron spectrum in a two-colour baryon-rich medium. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2008, 662, 405-412.	1.5	28
30	Dense two-color QCD towards continuum and chiral limits. <i>Physical Review D</i> , 2020, 101, .	1.6	28
31	Lattice approach to diquark condensation in dense matter. <i>Physical Review D</i> , 1999, 59, .	1.6	27
32	The phase diagram of the three dimensional Thirring model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1999, 461, 263-269.	1.5	27
33	Lattice study of dense matter with two colors and four flavors. <i>European Physical Journal A</i> , 2011, 47, 1.	1.0	26
34	Chiral symmetry restoration and realisation of the Goldstone mechanism in the $U(1)$ Gross-Neveu model at non-zero chemical potential. <i>Nuclear Physics B</i> , 1999, 557, 327-351.	0.9	24
35	Lattice matter. <i>Nuclear Physics, Section B, Proceedings Supplements</i> , 2002, 106-107, 142-150.	0.5	24
36	Evidence for BCS diquark condensation in the 3+1d lattice NJL model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2002, 548, 196-203.	1.5	24

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37	The U(1) Gross-Neveu model at non-zero chemical potential. Nuclear Physics B, 1995, 442, 364-388.	0.9	23
38	Monte Carlo simulation of the three dimensional Thirring model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 373, 171-177.	1.5	23
39	Chiral symmetry restoration in anisotropic QED3. Physical Review B, 2007, 75, .	1.1	22
40	Numerical portrait of a relativistic thin film BCS superfluid. Physical Review D, 2002, 65, .	1.6	21
41	The QCD equation of state for two flavours at non-zero chemical potential. Nuclear Physics A, 2006, 774, 837-840.	0.6	18
42	Critical flavor number in the $2+1$ D Thirring model. Physical Review D, 2019, 99, .	1.6	18
43	Numerical study of the two color attoworld. Journal of High Energy Physics, 2010, 2010, 1.	1.6	17
44	Fermi surface phenomena in the $(2+1)$ D four-Fermi model. Physical Review D, 2003, 68, .	1.6	16
45	Numerical portrait of a relativistic BCS gapped superfluid. Physical Review D, 2004, 69, .	1.6	16
46	Simulating Dense Matter. Progress of Theoretical Physics Supplement, 2007, 168, 253-260.	0.2	16
47	Topological aspects of fermions on a honeycomb lattice. Journal of High Energy Physics, 2009, 2009, 060-060.	1.6	16
48	Towards critical physics in $2+1$ d with $U(2N)$ -invariant fermions. Journal of High Energy Physics, 2016, 2016, 1.	1.6	16
49	Logarithmic corrections to the equation of state in the $SU(2)$ $\hat{S}$ - $SU(2)$ Nambu-Jona-Lasinio model. Nuclear Physics B, 1998, 520, 382-408.	0.9	15
50	Level crossing for hot sphalerons. Nuclear Physics B, 1994, 425, 39-66.	0.9	14
51	Critical Behavior in the Dense Planar Nambu-Jona-Lasinio Model. Physical Review Letters, 2001, 86, 753-756.	2.9	14
52	Magnetic monopole plasma phase in $2+1$ D fermionic matter. Physical Review D, 2011, 84, .		
53	Topological fluctuations in dense matter with two colors. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2011, 701, 373-377.	1.5	14
54	Lattice study of anisotropic quantum electrodynamics in three dimensions. Physical Review B, 2005, 72, .	1.1	13

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55	Domain wall fermions for planar physics. Journal of High Energy Physics, 2015, 2015, 1.	1.6	13
56	Meson spectral functions at nonzero momentum in hot QCD. Nuclear Physics A, 2007, 785, 202-205.	0.6	12
57	Non-relativistic spectrum of two-color QCD at non-zero baryon density. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2012, 711, 199-204.	1.5	12
58	The U(1) Gross-Neveu model at non-zero chemical potential. Nuclear Physics B, 1995, 422, 364-388.	0.9	12
59	The magnetic condensate, strong vector forces and monopoles. Nuclear Physics B, 1991, 357, 467-494.	0.9	11
60	Point-to-point hadron correlation functions using the Sheikholeslami-Wohlert action. Physical Review D, 1995, 51, 6394-6402.	1.6	11
61	Critical behavior in the single flavor Thirring model in $\langle \text{mml:mrow} \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle + \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 1 \langle \text{mml:mn} \rangle \langle \text{mml:mi} \text{mathvariant="normal"} \rangle D \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ . Physical Review D, 2020, 102, .	1.6	11
62	Baryons in the plasma: In-medium effects and parity doubling. EPJ Web of Conferences, 2018, 171, 14005.	0.1	10
63	Lattice monopoles and lattice fermions. Nuclear Physics B, 1990, 329, 205-224.	0.9	9
64	Four fermion models at non-zero density. Nuclear Physics A, 1998, 642, c228-c238.	0.6	9
65	Lattice Simulations of 2-Colour QCD with Wilson Fermions. Progress of Theoretical Physics Supplement, 2004, 153, 60-68.	0.2	9
66	From domain wall to overlap in 2 + 1 d. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 754, 264-269.	1.5	9
67	Large- $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" id="d1e2875" altimg="si671.svg"} \rangle \langle \text{mml:mi} \rangle N \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ Chern insulators: Lattice field theory and quantum simulation approaches to correlation effects in the quantum anomalous Hall effect. Annals of Physics, 2022, 439, 168763.	1.0	9
68	Electromagnetic self-duality in a lattice model. Nuclear Physics B, 1996, 462, 291-314.	0.9	8
69	Two-color QCD at high density. AIP Conference Proceedings, 2016, , .	0.3	8
70	Weak matrix element calculations on the lattice using staggered fermions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1987, 193, 85-90.	1.5	7
71	Linearized lattice QED. Nuclear Physics B, 1990, 344, 255-282.	0.9	7
72	Quark matter in QC2D. European Physical Journal A, 2007, 31, 787-789.	1.0	7

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73	Numerical study of dense adjoint 2-color matter. Nuclear Physics, Section B, Proceedings Supplements, 2001, 94, 461-468.	0.5	6
74	The Planar Thirring Model with Kähler-Dirac Fermions. Symmetry, 2021, 13, 1523.	1.1	6
75	Zero lattice sound. Physical Review D, 2004, 70, .	1.6	4
76	Quantum Chaos in Supersymmetric QCD at Finite Density. Progress of Theoretical Physics Supplement, 2004, 153, 295-300.	0.2	4
77	The Phase Diagram of Two Color QCD. Journal of Physics: Conference Series, 2013, 432, 012020.	0.3	4
78	The chiral condensate and topology in SU(2) lattice gauge theory. Nuclear Physics, Section B, Proceedings Supplements, 1989, 9, 422-424.	0.5	3
79	High density effective theory confronts the Fermi liquid. Physical Review D, 2004, 69, .	1.6	3
80	Supercurrent flow in NJL2+1 at high baryon density. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 637, 229-234.	1.5	3
81	Quantum phase transition in a graphene model. Journal of Physics: Conference Series, 2009, 150, 042191.	0.3	3
82	Monte Carlo study of strongly interacting degenerate fermions: A model for voltage-biased bilayer graphene. Physical Review D, 2013, 87, .	1.6	3
83	Hadron wave functions as a probe of a two-color baryonic medium. European Physical Journal A, 2015, 51, 1.	1.0	3
84	Quark-gluon plasma phenomenology from anisotropic lattice QCD. AIP Conference Proceedings, 2016, .	0.3	3
85	Medium effects and parity doubling of hyperons across the deconfinement phase transition. EPJ Web of Conferences, 2018, 175, 07016.	0.1	3
86	Large-S and Tensor-Network Methods for Strongly-Interacting Topological Insulators. Symmetry, 2022, 14, 799.	1.1	3
87	Finite-element lattice fermions in perturbation theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1987, 195, 448-452.	1.5	2
88	Abelian gauge glasses. Nuclear Physics B, 1988, 305, 597-622.	0.9	2
89	The Lattice NJL Model at Non-zero Baryon and Isospin Densities. Nuclear Physics, Section B, Proceedings Supplements, 2005, 140, 532-534.	0.5	2
90	Improving the lattice QED action. Nuclear Physics, Section B, Proceedings Supplements, 1995, 42, 663-665.	0.5	1

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91	Diquark condensation in dense SU(2) matter. Nuclear Physics, Section B, Proceedings Supplements, 2002, 106-107, 450-452.	0.5	1
92	QED in 2+1 Dimensions with Fermi and Gap Anisotropies. Nuclear Physics, Section B, Proceedings Supplements, 2005, 140, 811-813.	0.5	1
93	Can we study quark matter in the quenched approximation?. Nuclear Physics B, 2008, 789, 111-132.	0.9	1
94	Longitudinal and transverse meson correlators in the deconfined phase from the lattice. , 2010, , .		1
95	Quark-gluon plasma phenomenology from the lattice. Journal of Physics: Conference Series, 2014, 509, 012015.	0.3	1
96	Strong interaction effects at a Fermi surface in a model for voltage-biased bilayer graphene. Physical Review B, 2015, 92, .	1.1	1
97	QCDVis: a tool for the visualisation of Quantum Chromodynamics (QCD) data. Computers and Graphics, 2017, 67, 115-126.	1.4	1
98	QCDVis. , 2017, , .		1
99	Parity doubling of nucleons, Delta and Omega baryons across the deconfinement phase transition. EPJ Web of Conferences, 2017, 137, 07004.	0.1	1
100	Spontaneous Symmetry Breaking in the U(2) Planar Thirring Model?. , 2019, , .		1
101	Graphene as a Lattice Field Theory. , 2015, , .		1
102	Properties of the QCD thermal transition with $\langle N_f \rangle = 2$ flavors of Wilson quark. Physical Review D, 2022, 105, .	1.6	1
103	Chiral symmetry breaking in strongly coupled quenched QED. Nuclear Physics, Section B, Proceedings Supplements, 1990, 17, 675-678.	0.5	0
104	A non-trivial fixed point in fewer than four dimensions. Nuclear Physics, Section B, Proceedings Supplements, 1992, 26, 555-557.	0.5	0
105	A BCS gap on the lattice. Nuclear Physics, Section B, Proceedings Supplements, 2004, 129-130, 554-556.	0.5	0
106	Joint Contour Net Analysis for Feature Detection in Lattice Quantum Chromodynamics Data. Big Data Research, 2019, 15, 29-42.	2.6	0
107	A BCS CONDENSATE IN NJL <sub>3+1</sub> ?. , 2003, , .		0
108	Finite Temperature Lattice QCD — Baryons in the Quark–Gluon Plasma. Acta Physica Polonica B, Proceedings Supplement, 2016, 9, 441.	0.0	0

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109	Hadronic spectrum calculations in the quark-gluon plasma. , 2019, , .		0
110	Hyperons in Thermal QCD from the Lattice. Springer Proceedings in Physics, 2020, , 29-35.	0.1	0
111	Quark matter in QC2D. , 2007, , 489-491.		0
112	Lattice QCD at nonzero temperature and density. Journal of Physics: Conference Series, 2022, 2207, 012055.	0.3	0