

# Stephen Hayden

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3932113/publications.pdf>

Version: 2024-02-01

156  
papers

10,522  
citations

38742

50  
h-index

30922

102  
g-index

160  
all docs

160  
docs citations

160  
times ranked

5189  
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct observation of competition between superconductivity and charge density wave order in $\text{YBa}_2\text{Cu}_3\text{O}_{6.67}$ . <i>Nature Physics</i> , 2012, 8, 871-876.	16.7	924
2	Spin Waves and Electronic Interactions in $\text{La}_2\text{CuO}_4$ . <i>Physical Review Letters</i> , 2001, 86, 5377-5380.	7.8	541
3	Incommensurate magnetic fluctuations in $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ . <i>Physical Review Letters</i> , 1991, 67, 1791-1794.	7.8	534
4	Coexistence of superconductivity and ferromagnetism in the d-band metal $\text{ZrZn}_2$ . <i>Nature</i> , 2001, 412, 58-61.	27.8	415
5	The structure of the high-energy spin excitations in a high-transition-temperature superconductor. <i>Nature</i> , 2004, 429, 531-534.	27.8	340
6	Anomalous Criticality in the Electrical Resistivity of $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ . <i>Science</i> , 2009, 323, 603-607.	12.6	334
7	Spin fluctuations in $\text{YBa}_2\text{Cu}_3\text{O}_{6.6}$ . <i>Nature</i> , 1998, 395, 580-582.	27.8	306
8	Magnetic dynamics of $\text{La}_2\text{CuO}_4$ and $\text{La}_{2-x}\text{Ba}_x\text{CuO}_4$ . <i>Physical Review Letters</i> , 1989, 62, 2052-2055.	7.8	275
9	Nearly Singular Magnetic Fluctuations in the Normal State of a High-Tc Cuprate Superconductor. <i>Science</i> , 1997, 278, 1432-1435.	12.6	273
10	The Magnetic Excitation Spectrum and Thermodynamics of High-Tc Superconductors. <i>Science</i> , 1999, 284, 1344-1347.	12.6	265
11	Polarized-Neutron Scattering Study of the Cooper-Pair Moment in $\text{Sr}_2\text{RuO}_4$ . <i>Physical Review Letters</i> , 2000, 85, 5412-5415.	7.8	213
12	Quantum Phase Transitions in the Itinerant Ferromagnet $\text{ZrZn}_2$ . <i>Physical Review Letters</i> , 2004, 93, 256404.	7.8	213
13	X-Ray Diffraction Observations of a Charge-Density-Wave Order in Superconducting Ortho-II $\text{YBa}_2\text{Cu}_3\text{O}_{6.54}$ Single Crystals in Zero Magnetic Field. <i>Physical Review Letters</i> , 2013, 110, 137004.	7.8	211
14	Heat Conduction in the Vortex State of $\text{NbSe}_2$ : Evidence for Multiband Superconductivity. <i>Physical Review Letters</i> , 2003, 90, 117003.	7.8	210
15	Low energy excitations in superconducting $\text{La}_{1.86}\text{Sr}_{0.14}\text{CuO}_4$ . <i>Physical Review Letters</i> , 1993, 71, 919-922.	7.8	199
16	High-energy spin waves in $\text{La}_2\text{CuO}_4$ . <i>Physical Review Letters</i> , 1991, 67, 3622-3625.	7.8	192
17	Competing charge, spin, and superconducting orders in underdoped $\text{YBa}_2\text{Cu}_3\text{O}_x$ . <i>Physical Review B</i> , 2014, 90, .	3.2	185
18	Two energy scales in the spin excitations of the high-temperature superconductor $\text{La}_{2-x}\text{Sr}_x\text{CuO}_4$ . <i>Nature Physics</i> , 2007, 3, 163-167.	16.7	184

#	ARTICLE	IF	CITATIONS
19	Resonance as a measure of pairing correlations in the high-Tc superconductor YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6.6</sub> . Nature, 2000, 406, 965-968.	27.8	180
20	Spin Waves throughout the Brillouin Zone of a Double-Exchange Ferromagnet. Physical Review Letters, 1996, 77, 711-714.	7.8	172
21	Neutron scattering study of the interplay between structure and magnetism in $\text{Ba}_{1-x}\text{Bi}_x\text{Cu}_2\text{O}_7$ . Physical Review B, 2009, 79, 014411.	3.2	170
22	Charge density wave fluctuations in $\text{La}_{1-x}\text{Sr}_x\text{CuO}_4$ . Physical Review B, 2014, 89, 014411.	1.2	166
23	Antiferromagnetic order in UPt <sub>3</sub> under pressure: Evidence for a direct coupling to superconductivity. Physical Review B, 1992, 46, 8675-8678.	3.2	158
24	Comparison of the High-Frequency Magnetic Fluctuations in Insulating and Superconducting $\text{La}_2\text{a}^{\sim}\text{xSrxCuO}_4$ . Physical Review Letters, 1996, 76, 1344-1347.	7.8	152
25	Magnetic fluctuations in $\text{La}_{1.95}\text{Ba}_{0.05}\text{CuO}_4$ . Physical Review Letters, 1991, 66, 821-824.	7.8	150
26	Dispersive Excitations in the High-Temperature Superconductor $\text{La}_2\text{a}^{\sim}\text{xSrxCuO}_4$ . Physical Review Letters, 2004, 93, 147002.	7.8	148
27	Anomalous High-Energy Spin Excitations in the High-Tc Superconductor-Parent Antiferromagnet $\text{La}_{1-x}\text{Sr}_x\text{CuO}_4$ . Physical Review Letters, 2010, 105, 247001.	7.8	146
28	Magnetic field controlled charge density wave coupling in underdoped YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6+x</sub> . Nature Communications, 2016, 7, 11494.	12.8	134
29	Incommensurate magnetic correlations in $\text{La}_{1.8}\text{Sr}_{0.2}\text{NiO}_4$ . Physical Review Letters, 1992, 68, 1061-1064.	7.8	123
30	Quantum phase transition in a common metal. Nature, 2002, 419, 459-462.	27.8	120
31	Nature of magnetic excitations in superconducting BaFe <sub>1.9</sub> Ni <sub>0.1</sub> As <sub>2</sub> . Nature Physics, 2012, 8, 376-381.	16.7	120
32	Spin gap and magnetic coherence in a clean high-temperature superconductor. Nature, 1999, 400, 43-46.	27.8	114
33	MERLIN, a new high count rate spectrometer at ISIS. Physica B: Condensed Matter, 2006, 385-386, 1029-1031.	2.7	109
34	High-frequency spin waves in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6.15</sub> . Physical Review B, 1996, 54, R6905-R6908.	3.2	107
35	New Magnetic Coherence Effect in Superconducting $\text{La}_2\text{a}^{\sim}\text{xSrxCuO}_4$ . Physical Review Letters, 1996, 77, 1604-1607.	7.8	98
36	Dispersive spin fluctuations in the nearly optimally doped superconductor $\text{Ba}_{1-x}\text{Bi}_x\text{Cu}_2\text{O}_7$ . Physical Review B, 2010, 81, 014411.	3.2	81

#	ARTICLE	IF	CITATIONS
---	---------	----	-----------

37

Persistence of High-Frequency Spin Fluctuations in Overdoped Superconducting  $d$ -Wave Superconductors  
[xmlns:mml="http://www.w3.org/1998/Math/MathML"](http://www.w3.org/1998/Math/MathML)

#	ARTICLE	IF	CITATIONS
55	Detection of Acoustic Plasmons in Hole-Doped Lanthanum and Bismuth Cuprate Superconductors Using Resonant Inelastic X-Ray Scattering. Physical Review Letters, 2020, 125, 257002.	7.8	41
56	Heavy Quasiparticles in the Ferromagnetic Superconductor ZrZn <sub>2</sub> . Physical Review Letters, 2003, 90, 057003.	7.8	38
57	Superconductivity induced by spark erosion in ZrZn <sub>2</sub> . Physical Review B, 2005, 72, .	3.2	38
58	de Haas-van Alphen effect in the vortex state of Nb <sub>3</sub> Sn. Physical Review B, 1994, 50, 4208-4211.	3.2	37
59	Anisotropic breakdown of Fermi liquid quasiparticle excitations in overdoped La <sub>2-x</sub> Sr <sub>x</sub> CuO <sub>4</sub> . Nature Communications, 2013, 4, 2559.	12.8	37
60	Direct observation of orbital hybridisation in a cuprate superconductor. Nature Communications, 2018, 9, 972.	12.8	37
61	Dispersive Magnetic Density Fluctuations in Ni <sub>3</sub> Ga. Physical Review Letters, 1989, 62, 657-660.	7.8	35
62	Resonant inelastic x-ray scattering study of the spin and charge excitations in the overdoped superconductor $\text{La}_{1.77}\text{Ce}_{0.23}\text{CuO}_4$ . Physical Review B, 2016, 93, .	3.2	34
63	Spin dynamics in the two-dimensional antiferromagnet La <sub>2</sub> CuO <sub>4</sub> . Physical Review B, 1990, 42, 10220-10225.	3.2	33
64	Direct Observation of the Multisheet Fermi Surface in the Strongly Correlated Transition Metal Compound ZrZn <sub>2</sub> . Physical Review Letters, 2004, 92, 107003.	7.8	32
65	On the superconducting phase transitions of UPt <sub>3</sub> . Journal of Magnetism and Magnetic Materials, 1990, 90-91, 623-627.	2.3	29
66	Polarized neutron measurement of magnetic order in YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6.45</sub> . Physical Review B, 2004, 69, .	3.2	28
67	Critical Doping for the Onset of Fermi-Surface Reconstruction by Charge-Density-Wave Order in the Cuprate Superconductor $\text{La}_{1-x}\text{Ce}_x\text{CuO}_4$ . Physical Review X, 2016, 6, 041048.	8.9	28
68	Polarized neutron scattering studies of magnetic excitations in electron-overdoped superconducting BaFe <sub>2</sub> As <sub>2</sub> . Physical Review X, 2016, 6, 041048.	3.2	27
69	The Fermi surface and band folding in La <sub>2-x</sub> Sr <sub>x</sub> CuO <sub>4</sub> , probed by angle-resolved photoemission. New Journal of Physics, 2010, 12, 125003.	2.9	23
70	Spin anisotropy of the magnetic excitations in the normal and superconducting states of optimally doped YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> . Physical Review B, 2004, 69, 040407.	3.2	23
71	Fermi surface reconstruction and quantum oscillations in underdoped YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> modeled in a single bilayer with mirror symmetry broken by charge density waves. Physical Review B, 2016, 93, .	3.2	23
72	No evidence for orbital loop currents in charge-ordered YBa <sub>2</sub> Cu <sub>3</sub> O <sub>6+x</sub> from polarized neutron diffraction. Physical Review B, 2017, 96, .	3.2	23

#	ARTICLE	IF	CITATIONS
73	Direct Observation of Paramagnons in Palladium. <i>Physical Review Letters</i> , 2010, 105, 027207.	7.8	22
74	Spin density wave induced disordering of the vortex lattice in superconducting $\text{La}_2\hat{x}\text{Sr}_x\text{CuO}_4$ . <i>Physical Review B</i> , 2012, 85, .	3.2	22
75	Two-dimensional type-II Dirac fermions in layered oxides. <i>Nature Communications</i> , 2018, 9, 3252.	12.8	21
76	Anisotropic damping and wave vector dependent susceptibility of the spin fluctuations in $\text{La}_2\hat{x}\text{Sr}_x\text{CuO}_4$ studied by resonant inelastic x-ray scattering. <i>Physical Review B</i> , 2019, 100, .	3.2	21
77	Quantum oscillations near $\text{Bc}_2$ in the organic superconductor $\hat{\text{I}}^{\text{e}}\text{-(BEDT-TTF)}_2\text{Cu(NCS)}_2$ . <i>Physica C: Superconductivity and Its Applications</i> , 1994, 235-240, 2453-2454.	1.2	20
78	Magnetic fluctuations in superconducting $\text{La}_2\hat{x}\text{Sr}_x\text{CuO}_4$ . <i>Physica B: Condensed Matter</i> , 1994, 199-200, 284-287.	2.7	18
79	Transport and thermodynamic evidence for a marginal Fermi-liquid state in $\text{ZrZn}_2$ . <i>Physical Review B</i> , 2012, 85, .	3.2	18
80	Absolute measurements of the high-frequency magnetic dynamics in High-Tc superconductors. <i>Physica B: Condensed Matter</i> , 1997, 241-243, 765-772.	2.7	17
81	Breakdown of conventional dynamic scaling at the ferromagnetic curie point in $\text{EuO}$ . <i>Physica B: Condensed Matter</i> , 1989, 156-157, 226-228.	2.7	16
82	Magnetic excitations in the dipole-coupled singlet-singlet system $\text{HoF}_3$ . <i>Journal of Physics Condensed Matter</i> , 1994, 6, 505-522.	1.8	16
83	Low-temperature ferroelectric phase and magnetoelectric coupling in underdoped $\text{La}_2\hat{x}\text{Sr}_x\text{CuO}_4$ . <i>Physical Review B</i> , 2012, 85, .	3.2	16
84	Charge density waves and Fermi surface reconstruction in the clean overdoped cuprate superconductor $\text{Tl}_2\text{Ba}_2\text{CuO}_6+\hat{\text{I}}$ . <i>Nature Communications</i> , 2022, 13, 570.	12.8	16
85	The low-temperature phase of $\text{La}_2\text{CuO}_4$ : I. Angle and temperature dependence of the Shubnikov - de Haas and de Haas - van Alphen oscillations. <i>Journal of Physics Condensed Matter</i> , 1996, 8, 10361-10376.	1.8	15
86	Band structure of overdoped cuprate superconductors: Density functional theory matching experiments. <i>Physical Review B</i> , 2019, 99, .	3.2	15
87	Title is missing!. <i>Journal of Superconductivity and Novel Magnetism</i> , 1999, 12, 525-528.	0.5	14
88	The Weights of Various Features in the Magnetic Spectra of Cuprates. <i>Physica Status Solidi (B): Basic Research</i> , 1999, 215, 519-522.	1.5	14
89	Magnetic response in $\text{UBe}_{13}$ . <i>Physica B: Condensed Matter</i> , 2000, 276-278, 764-765.	2.7	14
90	Superconducting fluctuations and the reduced dimensionality of the organic superconductor $\hat{\text{I}}^{\text{e}}\text{-(BEDT-TTF)}_2\text{Cu(NCS)}_2$ as observed through measurements of the de Haas-van Alphen effect. <i>Physical Review B</i> , 2002, 65, .	3.2	14



#	ARTICLE	IF	CITATIONS
109	Magnetic Excitations in an Itinerant Ferromagnet near Quantum Criticality. <i>Physical Review Letters</i> , 2007, 99, 196405.	7.8	6
110	Electronic structure and high field spin splitting in the incipient ferromagnet Ni <sub>3</sub> Ga. <i>Journal of Magnetism and Magnetic Materials</i> , 1986, 54-57, 1013-1014.	2.3	5
111	Anomalous neutron scattering near the superconducting phase transition. <i>Nature</i> , 1991, 350, 690-692.	27.8	5
112	Multi-band superconductivity in NbSe <sub>2</sub> from heat transport. <i>Physica C: Superconductivity and Its Applications</i> , 2004, 408-410, 727-728.	1.2	5
113	Reply to "Comment on "No evidence for orbital loop currents in charge-ordered YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-x</sub> from polarized neutron diffraction". <i>Physical Review B</i> , 2018, 98, .		5
114	Neutron Scattering and the Magnetic Response of Superconductors and Related Compounds. , 2008, , 993-1029.		5
115	Magnetic-field-controlled spin fluctuations and quantum criticality in Sr <sub>3</sub> Ru <sub>2</sub> O <sub>7</sub> . <i>Nature Communications</i> , 2021, 12, 5798.	12.8	5
116	Anisotropic exchange and spin dynamics in the type-II antiferromagnetic cerium monochalcogenide CeSe. <i>Journal of Magnetism and Magnetic Materials</i> , 1992, 104-107, 1204-1206.	2.3	4
117	High-frequency magnetic excitations in Cr <sub>0.95</sub> V <sub>0.05</sub> . <i>Physica B: Condensed Matter</i> , 1997, 237-238, 421-424.	2.7	4
118	Neutron scattering and the search for mechanisms of superconductivity. <i>Physica C: Superconductivity and Its Applications</i> , 1999, 317-318, 9-17.	1.2	4
119	Spin excitations and exchange couplings in the cuprate antiferromagnet La <sub>2</sub> CuO <sub>4</sub> . <i>Physica B: Condensed Matter</i> , 2000, 276-278, 592-593.	2.7	4
120	Quantum phase transitions in the itinerant ferromagnet. <i>Physica B: Condensed Matter</i> , 2005, 359-361, 1174-1176.	2.7	4
121	High energy inelastic neutron scattering from La <sub>2</sub> CuO <sub>4</sub> . <i>Physica B: Condensed Matter</i> , 1990, 163, 1-3.	2.7	3
122	Magnetic fluctuations in lamellar copper oxides. <i>Journal of Physics and Chemistry of Solids</i> , 1995, 56, 1911.	4.0	3
123	Magnetic properties of the dipole-coupled singlet-singlet system HoF <sub>3</sub> . <i>Journal of Magnetism and Magnetic Materials</i> , 1995, 140-144, 1191-1192.	2.3	3
124	High energy spin excitation of a high-T <sub>c</sub> superconductor La <sub>1.85</sub> Sr <sub>0.15</sub> CuO <sub>4</sub> . <i>European Physical Journal D</i> , 1996, 46, 1147-1148.	0.4	3
125	Magnetic dynamics in colossal magnetoresistive perovskite manganites. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 1998, 356, 1563-1575.	3.4	3
126	Magnetic fluctuations in paramagnetic chromium. <i>Physica B: Condensed Matter</i> , 2000, 281-282, 701-702.	2.7	3



#	ARTICLE	IF	CITATIONS
127	Quantum criticality puzzle of ZrZn <sub>2</sub> . Journal of Magnetism and Magnetic Materials, 2004, 272-276, 242-243.	2.3	3
128	Magnetic excitations of charge-ordered. Journal of Magnetism and Magnetic Materials, 2007, 310, 760-762.	2.3	3
129	Anomalous vortex liquid in charge-ordered cuprate superconductors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, e2016275118.	7.1	3
130	The marginal Fermi liquid hypothesis and magnetic fluctuations in La <sub>1.95</sub> Ba <sub>0.05</sub> CuO <sub>4</sub> . Journal of Magnetism and Magnetic Materials, 1992, 104-107, 507-508.	2.3	2
131	On the origin of the de Haas-van Alphen effect in a superconductor. Physica B: Condensed Matter, 1998, 246-247, 73-77.	2.7	2
132	Incommensurate critical fluctuations in paramagnetic Cr. Journal of Magnetism and Magnetic Materials, 2001, 226-230, 505-506.	2.3	2
133	Static and Dynamic Spins in Superconducting La <sub>2-x</sub> Sr <sub>x</sub> CuO <sub>4</sub> : The Rise, Years. Journal of Low Temperature Physics, 2004, 135, 621-664.	1.4	2
134	Point Contact Spectroscopy Study of ZrZn <sub>2</sub> . AIP Conference Proceedings, 2006, , .	0.4	2
135	Spin waves in the Heisenberg ferromagnet europium oxide, near to, but below T <sub>c</sub> . Physica B: Condensed Matter, 1989, 156-157, 235-237.	2.7	1
136	Neutron scattering studies on lanthanum cuprates (invited) (abstract). Journal of Applied Physics, 1991, 69, 4519-4519.	2.5	1
137	Spin waves and other magnetic fluctuations in giant magnetoresistive perovskite manganites. Physica B: Condensed Matter, 1997, 234-236, 698-702.	2.7	1
138	Magnetic coherence in the transition metal oxides. Physica B: Condensed Matter, 1997, 237-238, 30-35.	2.7	1
139	Magnetic coherence in the superconducting and normal states of La <sub>2-x</sub> Sr <sub>x</sub> CuO <sub>4</sub> . Physica C: Superconductivity and Its Applications, 1997, 282-287, 231.	1.2	1
140	Neutrons as a Probe of Magnetization on Atomic to Mesoscopic Scales. MRS Bulletin, 1999, 24, 29-33.	3.5	1
141	Experimental considerations for de Haas-van Alphen studies in the mixed state. Physica B: Condensed Matter, 1999, 259-261, 1066-1071.	2.7	1
142	Excitations in exotic superconductors. Physics World, 1999, 12, 18-18.	0.0	1
143	High T <sub>c</sub> Materials. Neutron News, 2010, 21, 30-33.	0.2	1
144	Evidence of Magnetic Correlations Among the Charge Stripe Electrons of Charge-Stripe Ordered La <sub>2</sub> NiO <sub>4.11</sub> . Journal of Physics: Conference Series, 2012, 340, 012060.	0.4	1

#	ARTICLE	IF	CITATIONS
145	Low temperature thermal and electrical transport properties of $ZrZn_2$ in high magnetic field. Journal of Physics: Conference Series, 2012, 391, 012116.	0.4	1
146	Metamagnetic Transition and Low-Energy Spin Density Fluctuations in $Sr_3Ru_2O_7$ . Lecture Notes in Physics, 2002, , 290-302.	0.7	1
147	Neutron Scattering Measurements of the Magnetic Excitations of High-Temperature Superconducting Materials. NATO ASI Series Series B: Physics, 1991, , 21-34.	0.2	1
148	HIGH ENERGY MAGNETIC EXCITATIONS IN CHROMIUM. Journal De Physique Colloque, 1988, 49, C8-221-C8-222.	0.2	1
149	Magnetic Excitations in $La_{2-x}(Ba,Sr)_xCuO_4$ . Physics and Chemistry of Materials With Low-dimensional Structures, 1998, , 135-164.	1.0	1
150	The low temperature magnetization of $ZrZn_2$ . Physica B: Condensed Matter, 1990, 165-166, 201-202.	2.7	0
151	de Haas-van Alphen study of two-dimensional superconductivity in $\hat{I}^e$ -(BEDT-TTF) $_2$ Cu(NCS) $_2$ . Synthetic Metals, 2001, 120, 819-820.	3.9	0
152	De Haas-van Alphen oscillations in the superconducting fluctuation region of $\hat{I}^e$ -(BEDT-TTF) $_2$ Cu(NCS) $_2$ . Journal of Magnetism and Magnetic Materials, 2001, 226-230, 266-268.	2.3	0
153	MAGNETISM AND SUPERCONDUCTIVITY IN $YBa_2Cu_3O_{6+x}$ SUPERCONDUCTORS. International Journal of Modern Physics B, 2002, 16, 3147-3147.	2.0	0
154	MAGNETISM AND SUPERCONDUCTIVITY IN $YBa_2Cu_3O_{6+x}$ SUPERCONDUCTORS. , 2002, , .		0
155	Metamagnetic Transition and Low-energy Spin Density Fluctuations in $Sr_3Ru_2O_7$ . ChemInform, 2003, 34, no.	0.0	0
156	MAGNETIC EXCITATIONS IN Fe AND Ni. Journal De Physique Colloque, 1988, 49, C8-59-C8-60.	0.2	0