

# Patrick Hautle

## List of Publications by Year in descending order

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95  
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citations

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29  
h-index

128289

60  
g-index

97  
all docs

97  
docs citations

97  
times ranked

1725  
citing authors

#	ARTICLE	IF	CITATIONS
1	Impact of the neutron-depolarization effect on polarized neutron scattering in ferromagnets. IUCr, 2021, 8, 455-461.	2.2	2
2	Defect-induced Dzyaloshinskii-Moriya interaction in a nanocrystalline two-phase alloy. Journal of Physics Condensed Matter, 2020, 32, 285804.	1.8	4
3	Microstructural-defect-induced Dzyaloshinskii-Moriya interaction. Physical Review B, 2019, 99, .	3.2	23
4	Magnetic small-angle neutron scattering on bulk metallic glasses: A feasibility study for imaging displacement fields. Physical Review Materials, 2017, 1, .	2.4	5
5	Neutron phase spin echo. Physical Review C, 2016, 93, .	2.9	1
6	Magnetic microstructure of a textured Nd-Fe-B sintered magnet characterized by small-angle neutron scattering. Journal of Alloys and Compounds, 2016, 661, 110-114.	5.5	11
7	Polarization analysis in neutron small-angle scattering with a novel triplet dynamic nuclear polarization spin filter. Journal of Applied Crystallography, 2015, 48, 1514-1521.	4.5	14
8	A Drabkin-type spin resonator as tunable neutron beam monochromator. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2015, 794, 47-53.	1.6	1
9	Concepts of Neutron Polarisation Analysis Devices for a New Neutron Chopper Spectrometer, POLANO, in J-PARC. Journal of Physics: Conference Series, 2014, 502, 012051.	0.4	4
10	Dynamic nuclear polarisation via the integrated solid effect II: experiments on naphthalene- <sup>8</sup> doped with pentacene- <sup>14</sup> . Molecular Physics, 2014, 112, 1773-1782.	1.7	30
11	Proton polarization above 70% by DNP using photo-excited triplet states, a first step towards a broadband neutron spin filter. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2014, 754, 10-14.	1.6	25
12	Using parabolic supermirror lenses to focus and de-focus a neutron beam. Journal of Physics: Conference Series, 2014, 528, 012009.	0.4	4
13	Neutron spin filtering with dynamically polarized protons using photo-excited triplet states. Journal of Physics: Conference Series, 2014, 528, 012022.	0.4	2
14	High proton spin polarization with DNP using the triplet state of pentacene-. Chemical Physics Letters, 2013, 555, 296-299.	2.6	26
15	Automated transfer and injection of hyperpolarized molecules with polarization measurement prior to <i>in vivo</i> NMR. NMR in Biomedicine, 2013, 26, 1582-1588.	2.8	62
16	Boosting Dissolution Dynamic Nuclear Polarization by Cross Polarization. Journal of Physical Chemistry Letters, 2013, 4, 111-114.	4.6	116
17	An apparatus for pulsed ESR and DNP experiments using optically excited triplet states down to liquid helium temperatures. Journal of Magnetic Resonance, 2013, 234, 58-66.	2.1	21
18	Polarized neutron Laue diffraction on a crystal containing dynamically polarized proton spins. Journal of Applied Crystallography, 2013, 46, 30-34.	4.5	13

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19	Spin filtering neutrons with a proton target dynamically polarized using photo-excited triplet states. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2012, 678, 91-97.	1.6	17
20	Ultra High-Resolution NMR: Sustained Induction Decays of Long-Lived Coherences. Journal of the American Chemical Society, 2011, 133, 15644-15649.	13.7	22
21	Production of ultracold neutrons from cryogenic $2\text{H}_2$ , $\text{O}_2$ , and $\text{C}_2\text{H}_4$ converters. Europhysics Letters, 2011, 95, 12001.	2.0	10
22	The neutron spin phase imaging technique applied to dia- and paramagnetic samples. Physica B: Condensed Matter, 2011, 406, 2409-2411.	2.7	7
23	Hyperpolarizing Gases via Dynamic Nuclear Polarization and Sublimation. Physical Review Letters, 2010, 105, 018104.	7.8	35
24	Quantitative Radiography of Magnetic Fields Using Neutron Spin Phase Imaging. Physical Review Letters, 2009, 102, 145501.	7.8	36
25	Long-lived states to sustain hyperpolarized magnetization. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18469-18473.	7.1	173
26	Hyperpolarized lithium-6 as a sensor of nanomolar contrast agents. Magnetic Resonance in Medicine, 2009, 61, 1489-1493.	3.0	53
27	A compact neutron Ramsey resonance apparatus for polarised neutron radiography. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 605, 5-8.	1.6	10
28	The measurement of the incoherent neutron scattering length of the deuteron. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 611, 231-234.	1.6	7
29	Investigation of solid $\text{D}_2$ and $\text{D}_2\text{O}$ for ultracold neutron production. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 611, 252-255.	1.6	14
30	The PSI ultra-cold neutron source. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 611, 272-275.	1.6	58
31	Dilution refrigerators for particle physics experiments: Two variants with sample cooling by helium-4. Journal of Physics: Conference Series, 2009, 150, 012024.	0.4	2
32	Neutron spectroscopy with $^6\text{LiF}$ bolometers. , 2009, , .		7
33	Producing over 100ml of highly concentrated hyperpolarized solution by means of dissolution DNP. Journal of Magnetic Resonance, 2008, 194, 152-155.	2.1	39
34	Dynamic Nuclear Polarization "from Polarized Targets to Metabolic Imaging. Applied Magnetic Resonance, 2008, 34, 475-481.	1.2	4
35	Principles of Operation of a DNP Prepolarizer Coupled to a Rodent MRI Scanner. Applied Magnetic Resonance, 2008, 34, 313-319.	1.2	40
36	Neutron spin phase imaging. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 586, 15-17.	1.6	23

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37	Characterisation of the polarised neutron beam at the small angle scattering instrument SANS-I with a polarised proton target. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 586, 86-89.	1.6	25
38	A Ramsey apparatus for the measurement of the incoherent neutron scattering length of the deuteron. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2008, 589, 318-329.	1.6	18
39	Polarized Nuclei: From Fundamental Nuclear Physics To Applications In Neutron Scattering and Magnetic Resonance Imaging. AIP Conference Proceedings, 2008, , .	0.4	0
40	A 140GHz prepolarizer for dissolution dynamic nuclear polarization. Journal of Chemical Physics, 2008, 128, 241102.	3.0	98
41	Dynamic nuclear polarization of small labelled molecules in frozen waterâ€“alcohol solutions. Journal Physics D: Applied Physics, 2008, 41, 155506.	2.8	90
42	Cold Neutron Energy Dependent Production of Ultracold Neutrons in Solid Deuterium. Physical Review Letters, 2007, 99, 262502.	7.8	30
43	An Accurate Measurement of the Spin-Dependent Neutron-Deuteron Scattering Length. AIP Conference Proceedings, 2007, , .	0.4	0
44	Design and performance of a DNP prepolarizer coupled to a rodent MRI scanner. Concepts in Magnetic Resonance Part B, 2007, 31B, 255-269.	0.7	172
45	Recent progress in the development of a polarized proton target for reactions with radioactive ion beams. Nuclear Instruments & Methods in Physics Research B, 2007, 261, 1112-1116.	1.4	8
46	Creating local contrast in small-angle neutron scattering by dynamic nuclear polarization. Journal of Applied Crystallography, 2007, 40, s106-s110.	4.5	14
47	Time-resolved nuclear spin-dependent small-angle neutron scattering from polarised proton domains in deuterated solutions. European Physical Journal B, 2006, 49, 157-165.	1.5	36
48	A High-Accuracy Measurement Of The Spin-Dependent Neutron Scattering Length Of The Deuteron. AIP Conference Proceedings, 2006, , .	0.4	1
49	Spin polarized solid target as a prospective tool for radioactive ion beam physics. Nuclear Instruments & Methods in Physics Research B, 2005, 241, 1001-1005.	1.4	2
50	Measured Total Cross Sections of Slow Neutrons Scattered by Solid Deuterium and Implications for Ultracold Neutron Sources. Physical Review Letters, 2005, 95, 182502.	7.8	31
51	Measured Total Cross Sections of Slow Neutrons Scattered by Gaseous and Liquid H <sub>2</sub> . Physical Review Letters, 2005, 94, 212502.	7.8	15
52	Production of ultracold neutrons from a cold neutron beam on a D <sub>2</sub> target. Physical Review C, 2005, 71, .	2.9	33
53	Investigation of solid D-2 for UCN sources. Journal of Research of the National Institute of Standards and Technology, 2005, 110, 491.	1.2	1
54	Spin asymmetries for events with high p <sub>T</sub> hadrons in DIS and an evaluation of the gluon polarization. Physical Review D, 2004, 70, .	4.7	96

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55	An experimental approach to the dynamics of nuclear polarisation. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 526, 81-90.	1.6	13
56	The spin-dependent nd scattering length $\hat{\epsilon}$ ” a proposed high-accuracy measurement. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 526, 91-95. <a href="#">D&lt;math&gt;\times&lt;/math&gt;math altimg=“si24.gif” overflow=“scroll”</a>	1.6	8
57	<a href="#">xmml:xcoc= http://www.elsevier.com/xml/xococ/dtd xmml:xs= http://www.w3.org/2001/XMLSchema xmml:xsi=“http://www.w3.org/2001/XMLSchema-instance” xmml:ns=“http://www.elsevier.com/xml/ja/dtd” xmml:ja=“http://www.elsevier.com/xml/ja/dtd” xmml:mml=“http://www.w3.org/1998/Math/MathML” xmml:tb=“http://www.elsevier.com/xml/common/table/dtd” xmml:sb=“http://www.elsevier.com/xml/common/struct-bib/dtd” xmml:ce=“http://www.Nuclear</a>	1.6	13
58	Low energy analyzing powers in pion $\hat{\epsilon}$ ”proton elastic scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 588, 155-162.	4.1	13
59	DNP with the free radicals deuterated TEMPO and deuterated oxo-TEMPO. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 526, 53-55.	1.6	12
60	A comparison of NMR concepts for polarization experiments. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2004, 526, 76-80.	1.6	1
61	Neutron scattering from polarised proton domains. Physica B: Condensed Matter, 2003, 335, 193-195.	2.7	7
62	Polarization transfer observables in $\hat{\epsilon}$ ”elastic scattering. Physical Review C, 2002, 66, .	2.9	0
63	Neutron scattering from polarised proton domains. Europhysics Letters, 2002, 59, 62-67.	2.0	23
64	Measurement of the SMC muon beam polarisation using the asymmetry in the elastic scattering off polarised electrons. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 443, 1-19.	1.6	12
65	Dynamic nuclear polarization in crystals of Nd <sup>3+</sup> :LaAlO <sub>3</sub> , a polarized <sup>139</sup> La target for a test of time-reversal invariance. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 440, 638-642.	1.6	10
66	Measurement of the $\hat{\beta}$ -anisotropy in. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 440, 736-743.	1.6	5
67	Spin filters and supermirrors: a comparison study of two methods of high-precision neutron polarisation analysis. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 440, 764-771.	1.6	23
68	Polarized scintillator targets. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 446, 592-599.	1.6	17
69	Spin asymmetries $A_1$ of the proton and the deuteron in the low $x$ and low $Q^2$ region from polarized high energy muon scattering. Physical Review D, 1999, 60, .	4.7	69
70	A large Streamer Chamber muon tracking detector in a high-flux fixed-target application. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1999, 435, 354-374.	1.6	2
71	Kinetic energy spectrum and polarization of neutrons from the reaction <sup>12</sup> C(p,n)X at 590 MeV. European Physical Journal A, 1998, 2, 411-415.	2.5	3
72	Measurement of proton and nitrogen polarization in ammonia and a test of equal spin temperature. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1998, 419, 60-82.	1.6	14

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73	Polarization transfer observables in $\vec{\mu}$ d elastic scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 425, 19-24.	4.1	4
74	Next-to-leading order QCD analysis of the spin structure function $g_1$ . Physical Review D, 1998, 58, .	4.7	117
75	Spin asymmetries $A_1$ and structure functions $g_1$ of the proton and the deuteron from polarized high energy muon scattering. Physical Review D, 1998, 58, .	4.7	266
76	Spin structure of the proton from polarized inclusive deep-inelastic muon-proton scattering. Physical Review D, 1997, 56, 5330-5358.	4.7	233
77	The spin-dependent structure function $g_1(x)$ of the proton from polarized deep-inelastic muon scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 412, 414-424.	4.1	74
78	The spin-dependent structure function $g_1(x)$ of the deuteron from polarized deep-inelastic muon scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 396, 338-348.	4.1	97
79	The nucleon facility NA at PSI. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 386, 211-227.	1.6	13
80	A line-shape analysis for spin-1 NMR signals. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1997, 398, 109-125.	1.6	17
81	Polarized Neutron Scattering from Polarized Nuclei Near Paramagnetic Centers. Journal of Applied Crystallography, 1997, 30, 839-843.	4.5	8
82	Polarisation of valence and non-strange sea quarks in the nucleon from semi-inclusive spin asymmetries. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 369, 93-100.	4.1	95
83	Large enhancement of deuteron polarization with frequency modulated microwaves. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 372, 339-343.	1.6	22
84	Dynamic nuclear polarization in thin polyethylene foils cooled via a superfluid $^4\text{He}$ film. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1996, 381, 219-222.	1.6	9
85	Analyzing powers for $\hat{p}^{\uparrow}(\vec{\mu}, \vec{\mu}+p)$ at $T=165$ and $240$ MeV. Physical Review C, 1996, 53, 1005-1008.	2.9	5
86	Measurement of the $\vec{\mu}+p$ analyzing power at $68.3$ MeV. Physical Review C, 1996, 54, 1930-1934.	2.9	13
87	A new measurement of the spin-dependent structure function $g_1(x)$ of the deuteron. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 357, 248-254.	4.1	149
88	Search for the hypothetical $\vec{\mu} \rightarrow \frac{1}{2}\mu$ decay. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 363, 41-45.	4.1	15
89	Magnetic coupling between $^3\text{He}$ and nuclei in a substrate A possible way to polarize bulk $^3\text{He}$ . Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1995, 356, 138-141.	1.6	2
90	Measurement and calculation of polarization transfer coefficients in the reaction $^2\text{H}(p,p)^2\text{H}$ at $E_p=22.5$ MeV. Journal of Physics G: Nuclear and Particle Physics, 1995, 21, 1363-1378.	3.6	2

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91	Spin asymmetry in muon-proton deep inelastic scattering on a transversely-polarized target. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 336, 125-130.	4.1	89
92	Measurement of the spin-dependent structure function $g_1(x)$ of the proton. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1994, 329, 399-406.	4.1	311
93	Measurement of the spin-dependent structure function $g_1(x)$ of the deuteron. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 302, 533-539.	4.1	354
94	Polarization reversal by adiabatic fast passage in a deuterated alcohol. Physical Review B, 1992, 46, 6596-6599.	3.2	9
95	A new method for the precise absolute calibration of polarization effects in scattering applied to $p\hat{\pm}$ scattering at 25.68 MeV and $\hat{\theta}_{lab} = 117.5^\circ$ . Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 1989, 281, 17-27.	1.6	10