

Fred Myhrer

List of Publications by Year in descending order

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103
papers

1,877
citations

279798
23
h-index

289244
40
g-index

104
all docs

104
docs citations

104
times ranked

624
citing authors

#	ARTICLE	IF	CITATIONS
1	Low Energy Antiproton Physics. <i>Annual Review of Nuclear and Particle Science</i> , 1991, 41, 219-267.	10.2	111
2	The nucleon-nucleon force and the quark degrees of freedom. <i>Reviews of Modern Physics</i> , 1988, 60, 629-661.	45.6	100
3	The baryon masses and the chiral quark bag model. <i>Nuclear Physics A</i> , 1981, 362, 317-330.	1.5	99
4	Neutrino– deuteron reactions at solar neutrino energies. <i>Nuclear Physics A</i> , 2002, 707, 561-576.	1.5	85
5	Chiral perturbation approach to the $p\bar{p}$ reaction near threshold. <i>Physical Review C</i> , 1996, 53, 1519-1531.	2.9	75
6	A simple model for proton-antiproton scattering at low energies. <i>Il Nuovo Cimento A</i> , 1977, 40, 152-162.	0.2	68
7	A possible resolution of the proton spin problem. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2008, 663, 302-305.	4.1	59
8	Entropy of hot matter produced in heavy ion collisions. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1980, 95, 361-364.	4.1	55
9	Chiral perturbation theory and the $p\bar{p}$ reaction near threshold. <i>Physical Review C</i> , 1997, 56, 1246-1255.	2.9	53
10	The $\frac{1}{4}d$ capture rate in effective field theory. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2002, 533, 25-36.	4.1	53
11	Neutron beta-decay in effective field theory. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2004, 595, 250-259.	4.1	52
12	Pion bound states in nuclei. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1978, 74, 163-169.	4.1	51
13	Interference of dibaryon resonances with Faddeev amplitudes for elastic $d\bar{d}$ scattering. <i>Journal of Physics G: Nuclear Physics</i> , 1980, 6, 171-178.	0.8	50
14	One-boson exchange potentials and nucleon-antinucleon scattering. <i>Il Nuovo Cimento A</i> , 1977, 37, 21-31.	0.2	48
15	Effective kaon mass in baryonic matter and kaon condensation. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1993, 315, 17-23.	4.1	48
16	Pion-deuteron scattering in the (1236) energy region as a three-body problem. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1973, 46, 322-324.	4.1	38
17	On mass corrections and the axial coupling constant in the chiral quark model. <i>Nuclear Physics A</i> , 1981, 364, 322-332.	1.5	36
18	Spin structure functions and gluon exchange. <i>Physical Review D</i> , 1988, 38, 1633-1635.	4.7	36

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19	The spin content of the proton in the chiral bag. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1988, 214, 123-126.	4.1	34
20	A next-to-next-to-leading-order $p\bar{p} \rightarrow p\bar{p}$ transition operator in chiral perturbation theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1999, 465, 43-54.	4.1	30
21	Understanding the proton's spin structure. Journal of Physics G: Nuclear and Particle Physics, 2010, 37, 023101.	3.6	24
22	Validity of the impulse approximation in meson-nucleus scattering. Nuclear Physics A, 1975, 241, 524-532.	1.5	23
23	Capture rate and neutron helicity asymmetry for ordinary muon capture on hydrogen. Physical Review C, 2000, 63, .	2.9	23
24	SU(6) violations due to one-gluon exchange. Physical Review D, 1988, 37, 1950-1956.	4.7	21
25	Electromagnetic decays of excited hyperons. Nuclear Physics A, 1991, 529, 713-726.	1.5	21
26	Baryon magnetic moments. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1983, 128, 229-234.	4.1	20
27	Novel feature of the vector-meson solution in the Nambu-Jona-Lasinio model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1991, 261, 221-228.	4.1	20
28	Nucleon RMS radii from chiral quark model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1982, 110, 353-358.	4.1	19
29	Excited baryons in the bag. Zeitschrift für Physik C-Particles and Fields, 1984, 25, 281-297.	1.5	19
30	Radiative muon capture by a proton in chiral perturbation theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1998, 416, 36-42.	4.1	19
31	Effective field theory calculations of $NN \rightarrow NN$. International Journal of Modern Physics E, 2014, 23, 1430004.	1.0	19
32	Electromagnetic decays of excited hyperons (II). Nuclear Physics A, 1993, 554, 593-619.	1.5	18
33	The quark model and the strange baryon magnetic moments. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1983, 125, 359-363.	4.1	17
34	A new dynamic selection rule for $p \rightarrow p + p$. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1985, 157, 247-249.	4.1	16
35	Toy model for pion production in nucleon-nucleon collisions. Physical Review C, 2001, 63, .	2.9	16
36	Elastic $p\bar{p} \rightarrow p\bar{p}$ reactions in short- and middle-distance QCD. Physical Review D, 1992, 46, 2891-2895.	4.7	15

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37	An important correction to $\bar{e}d$ scattering in the resonance region. Nuclear Physics A, 1979, 326, 497-507.	1.5	14
38	Hyperon resonances in the chiral bag model. Physical Review D, 1989, 39, 3391-3401.	4.7	14
39	Pion-nucleon scattering and the nucleon- Ξ term in an extended linear- Ξ model. Physical Review C, 2000, 61, .	2.9	14
40	Pion production in nucleon-nucleon collisions in chiral effective field theory: Next-to-next-to-leading order contributions. Physical Review C, 2012, 85, .	2.9	14
41	Octet Spin Fractions and the Proton Spin Problem. Physical Review Letters, 2013, 110, 202001.	7.8	14
42	On chiral pion coupling to bags. Zeitschrift f \ddot{u} r Physik C-Particles and Fields, 1983, 21, 73-82.	1.5	13
43	Nucleon-antinucleon annihilation via confined quark-gluon states. Physical Review D, 1985, 32, 1672-1680.	4.7	13
44	Excited quark-quark interactions in a bag model. Zeitschrift f \ddot{u} r Physik C-Particles and Fields, 1984, 25, 59-73.	1.5	12
45	Meson condensation in dense matter reexamined. Physical Review D, 1994, 50, 3549-3552.	4.7	12
46	Radiative corrections to antineutrino-proton scattering at low energies. Physical Review C, 2012, 85, .	2.9	11
47	Pion production in nucleon-nucleon collisions in chiral effective field theory with $\langle mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline">\langle mml:mrow>\langle mml:mi>1</mml:mi>\langle mml:mo>(</mml:mo>\langle mml:mn>1232</mml:mn>\langle mml:mrow>^2</mml:mrow>9</mml:math>$ degrees of freedom. Physical Review C, 2013, 88, .		
48	NEUTRINO EMISSIVITIES FROM DEUTERON BREAKUP AND FORMATION IN SUPERNOVAE. Astrophysical Journal, 2015, 801, 78.	4.5	11
49	Lepton-proton two-photon exchange in chiral perturbation theory. Physical Review D, 2020, 101, .	4.7	11
50	Baryon masses in the broken chiral quark bag. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1982, 108, 372-376.	4.1	10
51	Can excited baryons be explained in a bag model?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1984, 139, 81-84.	4.1	10
52	Derivation of a quark-antiquark multi-gluon annihilation potential. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1985, 162, 237-243.	4.1	10
53	Meson-exchange models for low-energy nucleon-antinucleon scattering. Physical Review D, 1985, 32, 1663-1671.	4.7	10
54	Maximum asymmetry phenomena in and reactions. Nuclear Physics A, 1993, 556, 601-620.	1.5	9

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55	The K-Mesic atom. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1973, 45, 96-98.	4.1	8
56	Low energy p- scattering and the quark confinement radius. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1986, 182, 6-10.	4.1	8
57	The proton spin sum rule chiral bag prediction, an update. Zeitschrift fÃ¼r Physik C-Particles and Fields, 1995, 68, 625-629.	1.5	8
58	Two-pion-exchange and other higher-order contributions to the $\pi^+ \pi^- \pi^+ \pi^-$ reaction. Physical Review C, 2009, 80, .	2.9	8
59	Why the mixed six-quark spatial symmetry is essential for nucleon-nucleon repulsion. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1986, 174, 366-370.	4.1	7
60	An update of muon capture on hydrogen. International Journal of Modern Physics E, 2014, 23, 1430010.	1.0	7
61	The second EMC effect, semileptonic baryon decays and the chiral bag. Zeitschrift fÃ¼r Physik C-Particles and Fields, 1990, 48, 295-299.	1.5	6
62	An analysis of antiproton-proton reactions. Nuclear Physics A, 1990, 508, 513-523.	1.5	6
63	Amplitude analysis of the $N^- N \rightarrow \pi^- \pi^+$ reaction. Physical Review D, 1996, 53, 6120-6126.	4.7	6
64	BRST INVARIANT CP1 MODEL THROUGH IMPROVED DIRAC QUANTIZATION. Modern Physics Letters A, 2001, 16, 1361-1376.	1.2	6
65	Ordinary and radiative muon capture in liquid hydrogen reexamined. Physical Review C, 2002, 65, .	2.9	6
66	In-medium meson properties and field transformations. Physical Review C, 2003, 68, .	2.9	6
67	The Adler-Weisberger and Goldberger-Miyazawa-Oehme sum rules as probes of constraints from analyticity and chiral symmetry in dynamical models for pion-nucleon scattering. Nuclear Physics A, 2004, 736, 339-350.	1.5	6
68	Comparison of the heavy-fermion and Foldy-Wouthuysen formalisms at third order. Physical Review C, 2007, 76, .	2.9	6
69	Radiative and chiral corrections to elastic lepton-proton scattering in chiral perturbation theory. Physical Review D, 2021, 104, .	4.7	6
70	Two-pion-exchange contributions to the $\pi^+ \pi^- \pi^+ \pi^-$ reaction. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 657, 187-191.	2.5	5
71	Threshold pion production in proton-proton collisions at NNLO in chiral EFT. European Physical Journal A, 2016, 52, 1.	2.5	5
72	Low-energy lepton-proton bremsstrahlung via effective field theory. European Physical Journal A, 2018, 54, 1.	2.5	5

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73	Radiative corrections for neutron decay and search for new physics. Journal of Research of the National Institute of Standards and Technology, 2005, 110, 315.	1.2	5
74	A meson exchange model for nucleon-nucleon polarization at 2 GeV/c. Physical Review C, 1984, 30, 298-300.	2.9	4
75	Use of Vlowâ~'kin a chiral-perturbation-theory description of the pâ~'ppi reaction. Physical Review C, 2006, 73, .	2.9	4
76	The effect of kaon condensation on quarkâ~"antiquark condensate in dense matter. Nuclear Physics A, 2007, 792, 249-263.	1.5	4
77	Pion-exchange contributions to the low-energy photodisintegration of deuterons. Nuclear Physics B, 1967, 3, 130-138.	2.5	3
78	The N scattering data and the nature of the NN repulsion. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1992, 288, 239-243.	4.1	3
79	Neutrino-deuteron reactions at solar neutrino energies. Nuclear Physics A, 2003, 721, C549-C552.	1.5	3
80	Fixed-Point Analysis of the Low-Energy Constants in the Pion-Nucleon Chiral Lagrangian. Progress of Theoretical Physics, 2004, 112, 289-297.	2.0	3
81	Comparison of the extended linear If model and chiral perturbation theory. Physical Review C, 2005, 72, .	2.9	3
82	Electromagnetic decay of $\pi(1520)$. Physical Review C, 2006, 74, .	2.9	3
83	Muon capture rate on hydrogen and the values of g_A and $g_{\pi NN}$. Physical Review C, 2013, 88, .	2.9	3
84	Ordinary muon capture in hydrogen reexamined. Physical Review C, 2013, 87, .	2.9	3
85	THE CHIRAL QUARK BAG: PROPERTIES AND SPECTROSCOPY OF BARYONS AND THE NUCLEAR FORCE. International Review of Nuclear Physics, 1985, , 325-407.	1.0	2
86	Neutrino magnetic moment contribution to the neutrinoâ~"deuteron reaction. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 602, 60-66.	4.1	2
87	Ratio of the proton electromagnetic form factors from meson dressing. Physical Review C, 2005, 71, .	2.9	2
88	Neutrino Reactions with Deuteron in Core-Collapse Supernova. Few-Body Systems, 2013, 54, 1595-1598.	1.5	2
89	Maximum asymmetry phenomena in $p, p \rightarrow e^- \bar{\nu} +$ and $p, p \rightarrow K^- K^+$ reactions. AIP Conference Proceedings, 1992, 4.	1	
90	Quark-quark correlations and baryon electroweak observables. Physical Review D, 2002, 66, .	4.7	1

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91	Complete next-to-next-to-leading order calculation of $NN\bar{N}NN$ in chiral effective field theory. EPJ Web of Conferences, 2014, 81, 03003.	0.3	1
92	Lepton Bremsstrahlung at Low Energies. Few-Body Systems, 2018, 59, 1.	1.5	1
93	Pion-nucleon and pion-few nucleon interactions. Nuclear Physics A, 1980, 335, 255-265.	1.5	0
94	Antinucleon-nucleon annihilation dynamics. Nuclear Physics, Section B, Proceedings Supplements, 1989, 8, 193-202.	0.4	0
95	What have we learned from antiproton proton scattering?. Nuclear Physics, Section B, Proceedings Supplements, 1997, 56, 14-21.	0.4	0
96	Comparing the $p\bar{p}$ $\rightarrow K^+ K^-$ and $p\bar{p}$ $\rightarrow \pi^+\pi^-$ reactions. Zeitschrift für Physik A, 1997, 358, 423-427.	0.9	0
97	A next-to-next-to-leading-order $pp \rightarrow p\pi^0$ transition operator in chiral perturbation theory. Nuclear Physics A, 2000, 663-664, 465c-468c.	1.5	0
98	The Spin Content of the Proton. , 2009, , .		0
99	Effective field theory and electro-weak processes. , 2010, , .		0
100	Neutrino pion production off deuteron. EPJ Web of Conferences, 2016, 113, 04028.	0.3	0
101	LARGE TWO-PION-EXCHANGE CONTRIBUTIONS TO THE $pp \rightarrow p\pi^0$ REACTION. , 2007, , .		0
102	Some aspects of strange baryon decays. , 1990, , 105-110.		0
103	SPIN STRUCTURE OF THE PROTON. , 1991, , .		0