

Gerald A Miller

List of Publications by Year in descending order

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168
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69250

77
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169
all docs

169
docs citations

169
times ranked

2362
citing authors

#	ARTICLE	IF	CITATIONS
1	Unified formalism for electromagnetic and gravitational probes: Densities. Physical Review D, 2022, 105, .	4.7	23
2	Confinement in two-dimensional QCD and the infinitely long pion. Physical Review D, 2022, 105, .	4.7	6
3	Color Transparency and Light-Front Holographic QCD. Physics, 2022, 4, 590-596.	1.4	1
4	Pions in proton structure and everywhere else. Physical Review D, 2022, 105, .	4.7	2
5	Can a protophobic vector boson explain the ATOMKI anomaly?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 813, 136061.	4.1	21
6	Mystery of Bloom-Gilman duality: A light-front holographic QCD perspective. Physical Review D, 2021, 103, .	4.7	6
7	Forces within hadrons on the light front. Physical Review D, 2021, 103, .	4.7	37
8	Short-range correlations and the nuclear EMC effect in deuterium and helium-3. Physical Review Research, 2021, 3, .	3.6	4
9	Genuine empirical pressure within the proton. Physical Review D, 2021, 104, .	4.7	10
10	Color transparency and the proton form factor: Evidence for the Feynman mechanism. Physical Review C, 2021, 104, .	2.9	6
11	Unified model of nucleon elastic form factors and implications for neutrino-oscillation experiments. Physical Review D, 2020, 102, .	4.7	3
12	Frame-independent spatial coordinate z : Implications for light-front wave functions, deep inelastic scattering, light-front holography, and lattice QCD calculations. Physical Review C, 2020, 102, .	2.9	21
13	Discovery versus precision in nuclear physics: A tale of three scales. Physical Review C, 2020, 102, .	2.9	3
14	Basis light-front quantization for a chiral nucleon-pion Lagrangian. Physical Review C, 2020, 101, .	2.9	6
15	Color Correlations in the Proton. , 2020, , .		0
16	Coherent-nuclear pion photoproduction and neutron radii. Physical Review C, 2019, 100, .	2.9	8
17	Chiral light-front perturbation theory and the flavor dependence of the light-quark nucleon sea. Physical Review C, 2019, 100, .	2.9	11
18	Exposing novel quark and gluon effects in nuclei. Journal of Physics G: Nuclear and Particle Physics, 2019, 46, 093001.	3.6	28

#	ARTICLE	IF	CITATIONS
19	Eta decay and muonic puzzles. Nuclear Physics B, 2019, 944, 114638.	2.5	8
20	Can long-range nuclear properties Be influenced by short range interactions? A chiral dynamics estimate. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 793, 360-364.	4.1	20
21	Short-range correlations and the charge density. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 790, 484-489.	4.1	12
22	Defining the proton radius: A unified treatment. Physical Review C, 2019, 99, .	2.9	72
23	Confinement in Nuclei and the Expanding Proton. Physical Review Letters, 2019, 123, 232003.	7.8	7
24	Lunenburg-lens-like structural Pauli attractive core of the nuclear force at short distances. Nuclear Physics A, 2018, 975, 73-76.	1.5	0
25	Ernest Henley's isospin and the ensuing progress. International Journal of Modern Physics E, 2018, 27, 1840005.	1.0	0
26	Extracting many-body color charge correlators in the proton from exclusive DIS at large Bjorken x . Physical Review D, 2018, 98, .	4.7	20
27	Short range correlations and the isospin dependence of nuclear correlation functions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 785, 304-308.	4.1	23
28	Non-universal and universal aspects of the large scattering length limit. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2018, 777, 442-446.	4.1	7
29	Quarks fuse to release energy. Nature, 2017, 551, 40-41.	27.8	2
30	Euclidean bridge to the relativistic constituent quark model. Physical Review C, 2017, 95, .	2.9	8
31	Validity of the Weizsäcker-Williams approximation and the analysis of beam dump experiments: Production of a new scalar boson. Physical Review D, 2017, 95, .	4.7	33
32	Nucleon-nucleon correlations, short-lived excitations, and the quarks within. Reviews of Modern Physics, 2017, 89, .	45.6	234
33	Can nuclear physics explain the anomaly observed in the internal pair production in the Beryllium-8 nucleus?. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 773, 159-165.	4.1	41
34	Validity of the Weizsäcker-Williams approximation and the analysis of beam dump experiments: Production of an axion, a dark photon, or a new axial-vector boson. Physical Review D, 2017, 96, .	4.7	46
35	Kaon transverse charge density from space- and timelike data. Physical Review C, 2017, 96, .	2.9	3
36	Bayesian analysis of light-front models and the nucleon's charmed sigma term. Physical Review D, 2017, 96, .	4.7	7

#	ARTICLE	IF	CITATIONS
37	Meaning of the nuclear wave function. Physical Review C, 2016, 94, .	2.9	1
38	Electrophobic Scalar Boson and Muonic Puzzles. Physical Review Letters, 2016, 117, 101801.	7.8	48
39	Proton charge extensions. Physical Review A, 2016, 93, .	2.5	2
40	Role of nucleon strangeness in supernova explosions. Physical Review C, 2016, 93, .	2.9	19
41	Microscopic optical potential for exotic isotopes from chiral effective field theory. Physical Review C, 2016, 93, .	2.9	36
42	Testing hydrodynamic descriptions of p+p collisions at $\sqrt{s}=7$ TeV. European Physical Journal C, 2016, 76, 1.	3.9	29
43	Polarized lepton-nucleon elastic scattering and a search for a light scalar boson. Physical Review C, 2015, 92, .	2.9	5
44	Correlated fermions in nuclei and ultracold atomic gases. Physical Review C, 2015, 92, .	2.9	43
45	Constraining nucleon strangeness. Physical Review C, 2015, 91, .	2.9	16
46	Hidden Color and the b_1 Structure Function of the Deuteron. Few-Body Systems, 2015, 56, 319-324.	1.5	1
47	Pion transverse charge density and the edge of hadrons. Physical Review C, 2014, 90, .	2.9	12
48	Charge symmetry breaking and parity violating electron-proton scattering. Physical Review C, 2014, 89, .	2.9	11
49	Pionic and hidden-color, six-quark contributions to the deuteron $\langle \mathbf{r}^{-1} \rangle$ function. Physical Review C, 2014, 89, .	2.9	11
50	Muonic Hydrogen and the Proton Radius Puzzle. Annual Review of Nuclear and Particle Science, 2013, 63, 175-204.	10.2	283
51	Proton polarizability contribution: Muonic hydrogen Lamb shift and elastic scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 718, 1078-1082.	4.1	43
52	Color transparency. , 2013, , .		0
53	Charge-symmetry breaking forces and isospin mixing in ^8Be . Physical Review C, 2013, 88, .	2.9	34
54	Microscopic optical potential from chiral nuclear forces. Physical Review C, 2013, 88, .	2.9	44

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55	THE EMC EFFECT AND HIGH MOMENTUM NUCLEONS IN NUCLEI. International Journal of Modern Physics E, 2013, 22, 1330017.	1.0	85
56	Electromagnetic Self-Energy Contribution to $\langle M \rangle_p$ the Isovector Nucleon Magnetic Polarizability. Physical Review Letters, 2012, 108, 232301.	7.8	65
57	Nucleon form factors and spin content in a quark-diquark model with a pion cloud. Physical Review C, 2012, 86, .	2.9	50
58	Nuclear quasielastic electron scattering limits nucleon off-mass shell properties. Physical Review C, 2012, 86, .	2.9	8
59	Taming the Pion Cloud of the Nucleon. Physical Review Letters, 2012, 108, 172001.	7.8	27
60	What's New with the Neutron and Proton. Few-Body Systems, 2012, 52, 357-366.	1.5	0
61	Nonperturbative relativistic calculation of the muonic hydrogen spectrum. Physical Review A, 2011, 84, .	2.5	25
62	Realistic transverse images of the proton charge and magnetization densities. Physical Review C, 2011, 83, .	2.9	73
63	Toward a resolution of the proton size puzzle. Physical Review A, 2011, 84, .	2.5	39
64	Pion transverse charge density from timelike form factor data. Physical Review D, 2011, 83, .	4.7	20
65	Third Zemach moment of the proton. Physical Review C, 2011, 83, .	2.9	30
66	Realizing vector meson dominance with transverse charge densities. Physical Review C, 2011, 84, .	2.9	10
67	Charge symmetry breaking in the $p \rightarrow d$ reaction. Physical Review C, 2010, 81, .	2.9	19
68	Travels with Tony's nucleon structure through our ages. , 2010, , .		0
69	Transverse Charge Densities. Annual Review of Nuclear and Particle Science, 2010, 60, 1-25.	10.2	116
70	Isospin-symmetry-breaking corrections to superallowed Fermi I^2 decay: Radial excitations. Physical Review C, 2009, 80, .	2.9	47
71	Singular charge density at the center of the pion?. Physical Review C, 2009, 79, .	2.9	36
72	Neutron charge density from simple pion cloud models. Physical Review C, 2009, 80, .	2.9	8

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73	Nucleon-nucleon charge symmetry breaking and the π^+p reaction. Physical Review C, 2009, 80, .	2.9	11
74	Elliptic flow from final state interactions in the distorted-wave emission-function model. Physical Review C, 2009, 79, .	2.9	0
75	Electromagnetic form factors and charge densities from hadrons to nuclei. Physical Review C, 2009, 80, .	2.9	39
76	THE INCLUSIVE π^+p EXCLUSIVE CONNECTION AND THE NEUTRON NEGATIVE CENTRAL CHARGE DENSITY. International Journal of Modern Physics E, 2009, 18, 1809-1824.	1.0	1
77	Non-Spherical Shapes of the Proton: Existence, Measurement, and Computation. Nuclear Physics News, 2008, 18, 12-16.	0.4	8
78	Understanding the optical potential in Hanbury-Brown π^+p Twiss interferometry. Physical Review C, 2008, 78, .	2.9	4
79	Isospin-symmetry-breaking corrections to superallowed Fermi β decay: Formalism and schematic models. Physical Review C, 2008, 78, .	2.9	54
80	Proton Electromagnetic-Form-Factor Ratios at Low Q^2 . Physical Review Letters, 2008, 101, 082002.	7.8	26
81	MESON CLOUDS AND NUCLEON ELECTROMAGNETIC FORM FACTORS. , 2008, , .		0
82	Charge Densities of the Neutron and Proton. Physical Review Letters, 2007, 99, 112001.	7.8	222
83	Measurement of Nuclear Transparency for the α \rightarrow p π^+ reaction. Physical Review Letters, 2007, 99, 112001.	7.8	67
84	Clustering coefficients of protein-protein interaction networks. Physical Review E, 2007, 75, 051910.	2.1	4
85	Resonant relativistic corrections and the α problem. Physical Review C, 2007, 76, .	2.9	9
86	Polishing the lens: I. Pionic final state interactions and HBT correlations: distorted wave emission-function (DWEF) formalism and examples. Journal of Physics G: Nuclear and Particle Physics, 2007, 34, 703-739.	3.6	15
87	Implications of the nuclear EMC effect. European Physical Journal A, 2007, 31, 578-584.	2.5	6
88	Light front calculations of nucleon form factors. Nuclear Physics, Section B, Proceedings Supplements, 2006, 161, 185.	0.4	0
89	Retrieving the body physics in the α \rightarrow p π^+ reaction. Physical Review Letters, 2006, 97, 082002.	4.1	30
90	Physical Nucleon Form Factors from Lattice QCD. AIP Conference Proceedings, 2006, , .	0.4	0

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91	Chiral symmetry restoration, pion opacity, and the RHIC HBT puzzle. AIP Conference Proceedings, 2006, , .	0.4	0
92	Shapes of the nucleon. Physical Review C, 2006, 73, .	2.9	11
93	Charge Symmetry Breaking and QCD. Annual Review of Nuclear and Particle Science, 2006, 56, 253-292.	10.2	121
94	Study of lattice QCD form factors using the extended Gari-KrÄ¼mpelmann model. Physical Review C, 2005, 72, .	2.9	17
95	Quantum Opacity, the RHIC Hanbury Brownâ€Twiss Puzzle, and the Chiral Phase Transition. Physical Review Letters, 2005, 94, 102302.	7.8	40
96	Comparison of nucleon form factors from lattice QCD against the light front cloudy bag model and extrapolation to the physical mass regime. Physical Review C, 2005, 71, .	2.9	17
97	Double distributions for the proton. Physical Review D, 2004, 70, .	4.7	20
98	Handling the handbag diagram in Compton scattering on the proton. Physical Review C, 2004, 69, .	2.9	21
99	Relation between the deuteron form factor at high momentum transfer and the high energy neutron-proton scattering amplitude. Physical Review C, 2004, 69, .	2.9	2
100	Even parityÿpentaquark and stable antistrange nuclear matter. Physical Review C, 2004, 70, .	2.9	13
101	Survey of charge symmetry breaking operators for $d \rightarrow \pi^+ n$. Physical Review C, 2004, 69, .	2.9	38
102	Shapes of the proton. Physical Review C, 2003, 68, .	2.9	51
103	Hadrons in the nuclear medium. Journal of Physics G: Nuclear and Particle Physics, 2003, 29, R1-R45.	3.6	79
104	Observation of the Charge Symmetry Breaking $d + \pi^+ \rightarrow \text{He}^4 + \pi^0$ Reaction Near Threshold. Physical Review Letters, 2003, 91, 142302.	7.8	60
105	Complex conjugate poles and parton distributions. Physical Review D, 2003, 68, .	4.7	14
106	Generalized parton distributions and double distributions for $q \rightarrow q \pi^-$ pions. Physical Review D, 2003, 67, .	4.7	36
107	Generalized parton distributions for $q \rightarrow q \pi^-$ pions. Physical Review D, 2003, 67, .	4.7	27
108	Chiral Solitons in Nuclei: Saturation, EMC Effect, and Drell-Yan Experiments. Physical Review Letters, 2003, 91, 212301.	7.8	46

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109	Relativity, Chiral Symmetry, and the Nucleon Electromagnetic Form Factors. Few-Body Systems, 2003, , 207-218.	0.2	0
110	HADRONS IN THE NUCLEAR MEDIUM- ROLE OF LIGHT FRONT NUCLEAR THEORY. , 2003, , .		0
111	Exploring skewed parton distributions with two-body models on the light front. II. Covariant Bethe-Salpeter approach. Physical Review D, 2002, 65, .	4.7	30
112	Pion-only, chiral light-front model of the deuteron. Physical Review C, 2002, 65, .	2.9	5
113	Return of the EMC effect: Finite nuclei. Physical Review C, 2002, 65, .	2.9	37
114	Light front cloudy bag model: Nucleon electromagnetic form factors. Physical Review C, 2002, 66, .	2.9	121
115	Coherent QCD phenomena in the coherent pion-nucleon and pion-nucleus production of two jets at high relative momenta. Physical Review D, 2002, 65, .	4.7	30
116	Q ² independence of Q ² F ₂ /F ₁ , Poincaré invariance, and the nonconservation of helicity. Physical Review C, 2002, 65, .	2.9	76
117	LIGHT FRONT TREATMENT OF THE DEUTERON. , 2002, , .		0
118	THE ELECTROMAGNETIC FORM FACTORS OF THE PROTON AND NEUTRON: FUNDAMENTAL INDICATORS OF NUCLEON STRUCTURE. , 2002, , .		0
119	INFINITE NUCLEAR MATTER ON THE LIGHT FRONT: A MODERN APPROACH TO BRUECKNER THEORY. International Journal of Modern Physics B, 2001, 15, 1551-1557.	2.0	1
120	Toy model for pion production in nucleon-nucleon collisions. Physical Review C, 2001, 63, .	2.9	16
121	Return of the EMC effect. Physical Review C, 2001, 65, .	2.9	36
122	Light Front Nuclear Theory and the HERMES Effect. , 2001, , .		0
123	Charge symmetry violation in $pn \rightarrow d\pi^0$ and chiral effective field theory. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2000, 493, 65-72.	4.1	52
124	Perturbative Pion Wave Function in Coherent Pion-Nucleon Di-Jet Production. Foundations of Physics, 2000, 30, 533-542.	1.3	25
125	QCD Rescattering and High Energy Two-Body Photodisintegration of the Deuteron. Physical Review Letters, 2000, 84, 3045-3048.	7.8	44
126	$NN \rightarrow NN\pi$ reaction near threshold in a chiral power counting approach. Physical Review C, 2000, 61, .	2.9	30

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127	INFINITE NUCLEAR MATTER ON THE LIGHT FRONT: A MODERN APPROACH TO BRUECKNER THEORY. , 2000, , .		0
128	Nuclear physics on the light frontâ€”a new old way to do an old new problem. , 1999, , .		0
129	Nucleon charge symmetry breaking and parity violating electron-proton scattering. Physical Review C, 1998, 57, 1492-1505.	2.9	48
130	Chiral limit of nuclear physics. Physical Review C, 1997, 56, 3307-3310.	2.9	17
131	Color transparencyâ€”color coherent effects in nuclear physics. , 1997, , .		0
132	Role of color neutrality in nuclear physics: Modifications of nucleonic wave functions. Physical Review C, 1996, 54, 920-935.	2.9	107
133	Nonperturbative treatment of gluons and pseudoscalar mesons in baryon spectroscopy. Physical Review C, 1996, 53, R2038-R2042.	2.9	34
134	Quark-meson coupling model for finite nuclei. Physical Review C, 1996, 54, 359-370.	2.9	56
135	$pp \rightarrow pp + \pi^0$ reaction near threshold: A chiral power counting approach. Physical Review C, 1996, 53, 2661-2673.	2.9	117
136	Overview of charge symmetry. AIP Conference Proceedings, 1995, , .	0.4	0
137	Color transparency and spin effects in $(e, e'p)$ reactions. AIP Conference Proceedings, 1995, , .	0.4	0
138	Geometrical Color Optics of Coherent High-Energy Processes. Annual Review of Nuclear and Particle Science, 1994, 44, 501-560.	10.2	113
139	Coherent nuclear diffractive production of minijets â€” illuminating color transparency. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 304, 1-7.	4.1	123
140	Color transparency in (p, pp) reactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 318, 7-13.	4.1	25
141	Precocious dominance of point-like configurations in hadronic form factors. Nuclear Physics A, 1993, 555, 752-764.	1.5	25
142	Multiple-scattering series for color transparency. Physical Review D, 1993, 47, 1865-1878.	4.7	5
143	INTRODUCTION TO COLOR TRANSPARENCY. International Journal of Modern Physics E, 1992, 01, 629-664.	1.0	1
144	Color transparency and high-energy $(p, 2p)$ nuclear reactions. Physical Review C, 1992, 45, 1863-1870.	2.9	23

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145	High-energy nuclear quasielastic reactions: Decisive tests of nuclear-binding/pion models of the European Muon Collaboration effect. <i>Physical Review Letters</i> , 1992, 68, 17-20.	7.8	9
146	Energy dependence of color transparency. <i>Physical Review D</i> , 1991, 44, 692-703.	4.7	52
147	Charge symmetry, quarks and mesons. <i>Physics Reports</i> , 1990, 194, 1-116.	25.6	432
148	Pionic contributions to deep inelastic nuclear structure functions. <i>Physical Review C</i> , 1990, 41, 659-664.	2.9	37
149	Nucleonic contribution to Lepton-nucleus deep inelastic scattering. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1988, 200, 351-356.	4.1	56
150	Quark model of the $\pi^+p \rightarrow \pi^+pn$ reaction. <i>Physical Review C</i> , 1987, 36, 2450-2458.	2.9	18
151	Charge-symmetry breaking in neutron-proton elastic scattering. <i>Physical Review C</i> , 1987, 36, 1956-1967.	2.9	45
152	Charge-Symmetry Breaking in Neutron-Proton Elastic Scattering. <i>Physical Review Letters</i> , 1986, 56, 2567-2570.	7.8	66
153	Current algebra and the cloudy-bag model. <i>Physical Review D</i> , 1986, 33, 817-829.	4.7	26
154	The nuclear Drell-Yan process. <i>AIP Conference Proceedings</i> , 1985, , .	0.4	0
155	Six quark cluster effects and binding energy differences between mirror nuclei. <i>Physical Review C</i> , 1985, 31, 602-612.	2.9	20
156	Understanding the cloudy bag model. <i>AIP Conference Proceedings</i> , 1984, , .	0.4	0
157	Disentangling Explanations of Deep-Inelastic Lepton-Nucleus Scattering by Lepton-Pair Production. <i>Physical Review Letters</i> , 1984, 53, 2532-2535.	7.8	72
158	Six-Quark Cluster Components of Nuclear Wave Functions and the Pion-Nucleus Double-Charge-Exchange Reaction. <i>Physical Review Letters</i> , 1984, 53, 2008-2011.	7.8	54
159	Quarks and the deuteron asymptotic D state. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 1984, 134, 15-20.	4.1	31
160	The cloudy bag model. IV. Pionic corrections to the nucleon properties. <i>Canadian Journal of Physics</i> , 1982, 60, 59-72.	1.1	142
161	Isobar dynamics and pion-nucleus elastic scattering. <i>Nuclear Physics A</i> , 1982, 389, 457-491.	1.5	28
162	Cloudy bag model of the nucleon. <i>Physical Review D</i> , 1981, 24, 216-229.	4.7	308

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163	Pion-nucleon scattering in the Brown-Rho bag model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1980, 91, 192-195.	4.1	166
164	Pionic corrections to the MIT bag model: The (3,3) resonance. Physical Review D, 1980, 22, 2838-2852.	4.7	357
165	Field theory treatment of Pi-nucleus scattering. AIP Conference Proceedings, 1976, , .	0.4	0
166	Nucleon-nucleon correlations and elastic pion double charge-exchange reactions. AIP Conference Proceedings, 1976, , .	0.4	0
167	A survey of pion charge-exchange reactions with nuclei. Annals of Physics, 1976, 100, 562-606.	2.8	259
168	Positive pion production by 185 MeV protons. Nuclear Physics A, 1974, 224, 269-300.	1.5	47