Marc Vanderhaeghen

List of Publications by Year
in descending order

132 papers	7,785 citations	53794 45 h-index	49909 87 g-index
133 all docs	133 docs citations	133 times ranked	5263 citing authors

#	Article	IF	Citations
1	The anomalous magnetic moment of the muon in the Standard Model. Physics Reports, 2020, 887, 1-166.	25.6	790
2	Hard exclusive reactions and the structure of hadrons. Progress in Particle and Nuclear Physics, 2001, 47, 401-515.	14.4	681
3	Nucleon electromagnetic form factors. Progress in Particle and Nuclear Physics, 2007, 59, 694-764.	14.4	328
4	How to Reconcile the Rosenbluth and the Polarization Transfer Methods in the Measurement of the Proton Form Factors. Physical Review Letters, 2003, 91, 142303.	7.8	292
5	Electromagnetic excitation of the Δ(1232)-resonance. Physics Reports, 2007, 437, 125-232.	25.6	276
6	Pion and kaon photoproduction at high energies: forward and intermediate angles. Nuclear Physics A, 1997, 627, 645-678.	1.5	247
7	Deeply virtual electroproduction of photons and mesons on the nucleon: Leading order amplitudes and power corrections. Physical Review D, 1999, 60, .	4.7	243
8	Nucleon form factors from generalized parton distributions. Physical Review D, 2005, 72, .	4.7	229
9	Dispersion relations in real and virtual Compton scattering. Physics Reports, 2003, 378, 99-205.	25.6	209
10	Partonic Calculation of the Two-Photon Exchange Contribution to Elastic Electron-Proton Scattering at Large Momentum Transfer. Physical Review Letters, 2004, 93, 122301.	7.8	193
11	Two-photon exchange contribution to elastic electron-nucleonscattering at large momentum transfer. Physical Review D, 2005, 72, .	4.7	147
12	Virtual Compton scattering off the nucleon. Progress in Particle and Nuclear Physics, 1998, 41, 125-190.	14.4	146
13	Generalized parton distributions in the valence region from deeply virtual compton scattering. Reports on Progress in Physics, 2013, 76, 066202.	20.1	136
14	Hard Electroproduction of Photons and Mesons on the Nucleon. Physical Review Letters, 1998, 80, 5064-5067.	7.8	128
15	Two-Photon Physics in Hadronic Processes. Annual Review of Nuclear and Particle Science, 2007, 57, 171-204.	10.2	124
16	Empirical Transverse Charge Densities in the Nucleon and the Nucleon-to-Δ Transition. Physical Review Letters, 2008, 100, 032004.	7.8	109
17	Electromagnetic excitation of nucleon resonances. European Physical Journal: Special Topics, 2011, 198, 141-170.	2.6	103
18	Unified framework for generalized and transverse-momentum dependent parton distributions within a 3Q light-cone picture of the nucleon. Journal of High Energy Physics, 2011, 2011, 1.	4.7	102

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19	QED radiative corrections to virtual Compton scattering. Physical Review C, 2000, 62, .	2.9	100
20	Measurement of Deeply Virtual Compton Scattering with a Polarized-Proton Target. Physical Review Letters, 2006, 97, 072002.	7.8	98
21	Reggeized model for Î· and Î·â€² photoproduction. Physical Review C, 2003, 68, .	2.9	97
22	Higher-order proton structure corrections to the Lamb shift in muonic hydrogen. Physical Review A, 2011, 84, .	2.5	96
23	Deeply virtual Compton scattering on the nucleon: Study of the twist-3 effects. Physical Review D, 2001, 63, .	4.7	92
24	Neutron skins of atomic nuclei: per aspera ad astra. Journal of Physics G: Nuclear and Particle Physics, 2019, 46, 093003.	3.6	83
25	Search for Effects Beyond the Born Approximation in Polarization Transfer Observables in $e\overrightarrow{\rightarrow}p$ Elastic Scattering. Physical Review Letters, 2011, 106, 132501.	7.8	80
26	Chiral effective-field theory in the Î”(1232) region: Pion electroproduction on the nucleon. Physical Review D, 2006, 73, .	4.7	73
27	Electromagnetic Nucleon-to-Delta Transition in Chiral Effective-Field Theory. Physical Review Letters, 2005, 95, 232001.	7.8	72
28	New bounds on isotropic Lorentz violation. Physical Review D, 2006, 74, .	4.7	72
29	Higher order polarizabilities of the proton. Physical Review C, 2000, 61, .	2.9	70
30	Fixed-t subtracted dispersion relations for Compton scattering off the nucleon. Physical Review C, 1999, 61, .	2.9	65
31	First Determination of Generalized Polarizabilities of the Proton by a Virtual Compton Scattering Experiment. Physical Review Letters, 2000, 85, 708-711.	7.8	63
32	Two-Photon Exchange in Elastic Electron-Proton Scattering: A QCD Factorization Approach. Physical Review Letters, 2009, 103, 092004.	7.8	61
33	Quark transverse charge densities in the from lattice QCD. Nuclear Physics A, 2009, 825, 115-144.	1.5	59
34	Dispersive evaluation of the D-term form factor in deeply virtual Compton scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2014, 739, 133-138.	4.1	59
35	Electroinduced two-nucleon knockout and correlations in nuclei. Nuclear Physics A, 1997, 624, 581-622.	1.5	58
36	Double Deeply Virtual Compton Scattering off the Nucleon. Physical Review Letters, 2003, 90, 012001.	7.8	58

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37	Effects of the final-state interaction in ($\vec{\gamma}$, pn) and ($\vec{\gamma}$, pp) processes. Nuclear Physics A, 1994, 568, 828-854.	1.5	56
38	Resonance estimates for single spin asymmetries in elastic electron-nucleon scattering. Physical Review C, 2004, 70, .	2.9	55
39	Dispersion relation formalism for virtual Compton scattering off the proton. European Physical Journal A, 2001, 11, 185-208.	2.5	53
40	Lattice calculation of the magnetic moments of Σ and Ξ^{*} baryons with dynamical clover fermions. Physical Review D, 2009, 79, .	4.7	52
41	Nuclear-structure contribution to the Lamb shift in muonic deuterium. Physical Review A, 2014, 89, .	2.5	51
42	Σ-baryon electromagnetic form factors in lattice QCD. Physical Review D, 2009, 79, .	4.7	50
43	The proton charge radius. Reviews of Modern Physics, 2022, 94, .	45.6	50
44	Beam normal spin asymmetry in elastic lepton–nucleon scattering. Nuclear Physics A, 2004, 741, 234-248.	1.5	49
45	Theoretical framework to analyze searches for hidden light gauge bosons in electron scattering fixed target experiments. Physical Review D, 2013, 88, .	4.7	47
46	Pseudoscalar meson photoproduction at high energies: from the Regge regime to the hard scattering regime. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 400, 6-11.	4.1	42
47	Dispersive analysis of the $\gamma\gamma^{*} \to \pi\pi$ process. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 789, 366-372.	4.1	42
48	Proton spin polarizabilities from polarized Compton scattering. Physical Review C, 2007, 76, .	2.9	41
49	Burkhardt-Cottingham sum rule and forward spin polarizabilities in heavy baryon chiral perturbation theory. Physical Review D, 2003, 67, .	4.7	39
50	Exclusive π^{0} ... Physical Review D.	4.1	39
51	Magnetic dipole moment of the $\Delta^{+}(1232)$ from the $\gamma p \to \gamma \pi^{0} p$ reaction. Physical Review C, 2001, 64, .	2.9	38
52	Two-photon exchange corrections to elastic electron-proton scattering at large momentum transfer within the SCET approach. Journal of High Energy Physics, 2013, 2013, 1.	4.7	38
53	Determination of two-photon exchange amplitudes from elastic electron-proton scattering data. European Physical Journal A, 2011, 47, 1.	2.5	37
54	First measurement of proton's charge form factor at very low Q2 with initial state radiation. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2017, 771, 194-198.	4.1	37

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55	Measuring the real part of the forward $J/\psi-p$ scattering amplitude from J/ψ photoproduction on protons around thr...	4.7	36
56	Multinucleon mechanisms in (γ,N) and (γ,NN) reactions. Physical Review C, 1994, 49, 2704-2715.	2.9	35
57	Two-photon exchange correction to muon–proton elastic scattering at low momentum transfer. European Physical Journal C, 2016, 76, 1.	3.9	34
58	Exclusive electromagnetic production of strangeness on the nucleon: Regge analysis of recent data. Physical Review C, 2003, 68, .	2.9	33
59	Measurement of the Generalized Polarizabilities of the Proton in Virtual Compton Scattering at $Q^2=0.92$ and $1.76\,\mathrm{GeV}^2$. Physical Review Letters, 2004, 93, 122001.	7.8	33
60	Tomographic image of the proton. Physical Review D, 2017, 95, .	4.7	33
61	Electromagnetic properties of the $\Delta(1232)$ ...		

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73	Short-range correlations in (e,e′p) and (e,e′pp) reactions on complex nuclei. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1995, 350, 1-7.	4.1	23
74	Pion photoproduction through the Î” resonance region: relativistic versus non-relativistic unitary models. Nuclear Physics A, 1995, 595, 219-258.	1.5	23
75	Double polarization observables in virtual Compton scattering. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1997, 402, 243-250.	4.1	23
76	Dispersion Theory in Electromagnetic Interactions. Annual Review of Nuclear and Particle Science, 2018, 68, 75-103.	10.2	23
77	Light-Front Interpretation of Proton Generalized Polarizabilities. Physical Review Letters, 2010, 104, 112001.	7.8	22
78	On meson-exchange and Î”-isobar currents in the two-nucleon photoabsorption mechanism. Nuclear Physics A, 1994, 580, 551-576.	1.5	21
79	The 12C(e, e′p) and 12C(e, e′pp) reactions in the Î”-resonance region. Nuclear Physics A, 1995, 587, 697-720.	1.5	21
80	Helicity-dependent twist-two and twist-three generalized parton distributions in light-front QCD. Physical Review D, 2003, 67, .	4.7	21
81	Analysis of Deeply Virtual Compton Scattering data at Jefferson Lab and proton tomography. European Physical Journal A, 2017, 53, 1.	2.5	21
82	The proton charge radius extracted from the initial-state radiation experiment at MAMI. European Physical Journal A, 2021, 57, 1.	2.5	21
83	Expanding Nuclear Physics Horizons with the Gamma Factory. Annalen Der Physik, 2022, 534, .	2.4	21
84	Off-forward matrix elements in light-front Hamiltonian QCD. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 542, 245-254.	4.1	20
85	New predictions for generalized spin polarizabilities from heavy baryon chiral perturbation theory. Physical Review D, 2004, 70, .	4.7	20
86	Unitary model for theÎ³p↑Î³Ï€0preaction and the magnetic dipole moment of theÎ”+(1232). Physical Review C, 2005, 71, .	2.9	20
87	Two-photon exchange corrections to elastic e^--proton scattering: Full dispersive treatment of πN states at low momentum transfer	4.7	20
88	<i>Colloquium</i>: The Shape of Hadrons. Reviews of Modern Physics, 2012, 84, 1231-1251.	45.6	19
89	Dispersion relation formalism for virtual Compton scattering and the generalized polarizabilities of the nucleon. Physical Review C, 2000, 62, .	2.9	18
90	Sum rules across the unpolarized Compton processes involving generalized polarizabilities and moments of nucleon structure functions. Physical Review D, 2018, 97, .	4.7	18

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91	An experimental program with high duty-cycle polarized and unpolarized positron beams at Jefferson Lab. European Physical Journal A, 2021, 57, 1.	2.5	17
92	Virtual Compton scattering and the generalized polarizabilities of the proton at $Q^2 = 1.76$ GeV^2. Physical Review C, ...	2.9	15
93	... $e^{\tilde{}} e$ ... $\mu^{\tilde{}} \mu$ ...	7.8	15
94	Beam normal spin asymmetry for the $e^- e p \, \mathrm{\Gamma} \, (1232)$ ...	4.7	15
95	Absorption mechanisms in photon induced two-body knockout. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1993, 316, 17-22.	4.1	14
96	Higher moments of nucleon spin structure functions in heavy baryon chiral perturbation theory and in a resonance model. Physical Review D, 2004, 69, .	4.7	14
97	Long Range Structure of the Nucleon. Nuclear Physics News, 2011, 21, 14-22.	0.4	13
98	Generalized polarizabilities of the nucleon in baryon chiral perturbation theory. European Physical Journal C, 2017, 77, 1.	3.9	13
99	Dispersive evaluation of the Lamb shift in muonic deuterium from chiral effective field theory. Physical Review C, 2021, 103, .	2.9	11
100	Data-driven dispersive analysis of the $\pi\pi$ and πK scattering. Physical Review D, 2021, 103, .	4.7	11
101	Spin-dependent sum rules connecting real and virtual Compton scattering verified. Physical Review D, 2017, 95, .	4.7	10
102	Leading order corrections to the Bethe-Heitler process in the $\gamma p \to l^+ l^-$ ... reaction. Physical Review D, 2019, 100, .	4.7	10
103	Timelike Compton scattering off the neutron and generalized parton distributions. European Physical Journal A, 2016, 52, 1.	2.5	9
104	Soft-photon corrections to the Bethe-Heitler process in the $\gamma p \to l^+ l^-$ ... Physical Review D, 2018, 97, .	4.7	9
105	... $\gamma D \to \mathrm{D} \bar{\mathrm{D}}$ data and the confirmation of the ...	4.1	7
106	Nucleon polarizabilities in real and virtual Compton scattering: Recent theoretical issues. European Physical Journal: Special Topics, 2011, 198, 269-285.	2.6	5
107	Theoretical analysis of the $\gamma\gamma^{(*)} \to \pi^0 \pi$ process. EPJ Web of Conferences, 2019, 199, 02005.	0.3	5
108	Low-energy doubly virtual Compton scattering from dilepton electroproduction on a nucleon. Physical Review C, 2020, 102, .	2.9	5

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109	Reply to ''Comment on 'Multinucleon mechanisms in (Î³,N) and (Î³,NN) reactions' ''. Physical Review C, 1996, 54, 3313-3314.	2.9	4
110	Quark model predictions for the SU(6)-breaking ratio of the proton momentum distributions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 552, 149-158.	4.1	4
111	X17 Discovery Potential in the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î³</mml:mi><mml:mi>N</mml:mi><mml:mo stretchy="false">â†'</mml:mo><mml:msup><mml:mrow><mml:mi>e</mml:mi></mml:mrow><mml:mrow><mml:mo>+</mml:mo></ mml Process at Electron Scattering Facilities. Physical Review Letters, 2022, 128, 091802.	7.8	4
112	Leading-order QED radiative corrections to timelike Compton scattering on the proton. Physical Review D, 2021, 103, .	4.7	3
113	Exclusive electroproduction of vector mesons, pseudoscalar mesons and photons in the Bjorken regime. Nuclear Physics A, 1999, 654, 602c-607c.	1.5	2
114	The first virtual compton scattering experiment at MAMI. Nuclear Physics A, 2000, 666-667, 44-47.	1.5	2
115	Generalized parton distributions, nucleon form factors, and large-t processes. Annalen Der Physik, 2004, 13, 740-748.	2.4	2
116	Two-photon physics. Few-Body Systems, 2007, 41, 103-115.	1.5	2
117	Dilepton photoproduction on a deuteron target. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 797, 134872.	4.1	2
118	Soft-photon radiative corrections to the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msup><mml:mi>e</mml:mi><mml:mo>â^'</mml:mo></mml:msup><mml:mi>p</mml:mi><mml:mo stretchy="false">â†'</mml:mo><mml:msup><mml:mi>e</mml:mi><mml:mo>â^'</mml:mo></mml:msup><mml:mi>p</mml:mi><mml:m process. Physical Review D, 2021, 104, .	4.7	1
119	Deeply virtual compton scattering. Nuclear Physics A, 2000, 666-667, 234-243.	1.5	0
120	Dispersion relation formalism for real and virtual Compton scattering and nucleon polarizabilities. Nuclear Physics A, 2001, 684, 357-359.	1.5	0
121	Magnetic moment of the S11 (1535) resonance. Nuclear Physics A, 2003, 721, C731-C734.	1.5	0
122	Normal Spin Asymmetries in Elastic Electron-Proton Scattering. Nuclear Physics A, 2005, 755, 273-276.	1.5	0
123	Transverse single spin asymmetry in elastic electron-proton scattering. European Physical Journal A, 2005, 24, 33-34.	2.5	0
124	Two-photon physics. European Physical Journal A, 2006, 28, 71-80.	2.5	0
125	Two-photon physics. , 2006, , 71-80.		0
126	The Î³N â†' Î" Transition in Chiral Effective-field Theory. AIP Conference Proceedings, 2007, , .	0.4	0

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127	Beam normal spin asymmetries: Theory. European Physical Journal A, 2007, 32, 489-495.	2.5	0
128	Light-front transverse charge densities. Journal of Physics: Conference Series, 2011, 295, 012050.	0.4	0
129	SU(6)-BREAKING SYMMETRY AND THE RATIO OF PROTON MOMENTUM DISTRIBUTIONS. , 2004, , .		0
130	Probing the Magnetic Dipole Moment of the Î"+(1232) via Î³p â†' Î³Ï€0p Reaction. , 2007, , .		0
131	Two-Photon Exchange Contribution to the Elastic e-p Scattering at Large Momentum Transfer within a Partonic Approach. , 2007, , .		0
132	Finite Volume Study of the Delta Magnetic Moments Using Dynamical Clover Fermions. , 2009, , .		0