

Marcus Scheck

List of Publications by Year in descending order

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164
papers

2,951
citations

172457

29
h-index

206112

48
g-index

175
all docs

175
docs citations

175
times ranked

1284
citing authors

#	ARTICLE	IF	CITATIONS
1	Studies of pear-shaped nuclei using accelerated radioactive beams. Nature, 2013, 497, 199-204.	27.8	268
2	Isospin Character of the Pygmy Dipole Resonance in ^{124}Sn . Physical Review Letters, 2010, 105, 212503.	7.8	160
3	The Miniball spectrometer. European Physical Journal A, 2013, 49, 1.	2.5	126
4	Direct Evidence of Octupole Deformation in Neutron-Rich ^{144}Ba . Physical Review Letters, 2014, 112, 162701.	7.8	118
5	Studied via Coulomb Excitation. Physical Review Letters, 2014, 112, 162701.	7.8	96
6	Proton-neutron structure of the N=52 nucleus ^{92}Zr . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2002, 550, 140-146.	4.1	93
7	Evidence for a Smooth Onset of Deformation in the Neutron-Rich Kr Isotopes. Physical Review Letters, 2012, 108, 062701.	7.8	69
8	One-phonon isovector $^{2+}_{1,2}\text{MS}$ in the neutron-rich nucleus ^{132}Te . Physical Review C, 2011, 84, .	2.9	65
9	Low-lying E1, M1, and E2 strength distributions in $^{124,126,128,129,130,131,132,134,136}\text{Xe}$: Systematic photon scattering experiments in the mass region of a nuclear shape or phase transition. Physical Review C, 2006, 73, .	2.9	64
10	Structure of the pygmy dipole resonance in ^{124}Sn . Physical Review C, 2012, 85, active	2.9	56
11	and ^{222}Ra . Physical Review Letters, 2013, 111, 162701.	7.8	50
12	The high-efficiency spectroscopy setup at. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 723, 136-142.	1.6	48
13	Decay pattern of the pygmy dipole resonance in ^{180}Hg . Physical Review C, 2006, 73, .	2.9	47
14	Evolution of collectivity in ^{180}Hg and ^{182}Mo . Physical Review C, 2006, 73, .	2.9	46
15	Systematics of magnetic dipole strength in the stable even-mass Mo isotopes. Physical Review C, 2006, 73, .	2.9	44
16	Constraining nuclear photon strength functions by the decay properties of photo-excited states. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 727, 361-365.	4.1	42
17	Shape dynamics in neutron-rich Kr isotopes: Coulomb excitation of ^{92}Kr , ^{94}Kr and ^{96}Kr . Nuclear Physics A, 2013, 899, 1-28.	1.5	40
18	Low-lying dipole excitations in vibrational nuclei: The Cd isotopic chain studied in photon scattering experiments. Physical Review C, 2005, 72, .	2.9	39

#	ARTICLE	IF	CITATIONS
19	The decay pattern of the Pygmy Dipole Resonance of ^{140}Ce . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 756, 72-76.	4.1	39
20	EXILL – a high-efficiency, high-resolution setup for $\hat{\nu}$ -spectroscopy at an intense cold neutron beam facility. Journal of Instrumentation, 2017, 12, P11003-P11003.	1.2	39
21	Experimental study of the lifetime and phase transition in neutron-rich ^{100}Zr . Physical Review C, 2017, 96, .	2.9	38
22	Low-lying dipole strength of the open-shell nucleus ^{94}Mo . Physical Review C, 2013, 88, .	2.9	37
23	Shape coexistence in neutron-deficient Hg isotopes studied via lifetime measurements in ^{184}Hg . Physical Review C, 2014, 89, .	2.9	36
24	Direct measurement of the intrinsic electric dipole moment in pear-shaped thorium-228. Nature Physics, 2020, 16, 853-856.	16.7	36
25	The observation of vibrating pear-shapes in radon nuclei. Nature Communications, 2019, 10, 2473.	12.8	32
26	The concept of nuclear photon strength functions: A model-independent approach via $(\hat{\nu}\hat{\nu}^{\dagger}, \hat{\nu}\hat{\nu}^{\dagger}\hat{\nu}\hat{\nu}^{\dagger})$ reactions. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2019, 788, 225-230.	4.1	30
27	Decay of 1^+ States as a New Probe of the Structure of 0^+ Shape Isomers. Physical Review Letters, 2005, 95, 062501.	7.8	29
28	Combined in-beam electron and ^{13}C -ray spectroscopy of ^{13}C . Physical Review C, 2007, 75, .	2.9	29
29	Abrupt shape transition at neutron number $N=60$. Physical Review C, 2007, 75, .	2.9	28
30	Anomalous behavior of the 2^+ -mixed-symmetry state in ^{94}Zr . Physical Review C, 2007, 75, .	2.9	27
31	Photoresponse of ^{60}Ni below 10-MeV excitation energy: Evolution of dipole resonances in ^{60}Ni shell nuclei near ^{60}Ni . Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2013, 707, 143-148.	1.6	27
32	Dipole strength distributions in the stable Ba isotopes ^{134}Ba – ^{138}Ba : A study in the mass region of a nuclear shape transition. Physical Review C, 2004, 70, .	2.9	26
33	$2^+ \rightarrow 0^+$ transition strengths in Sn nuclei. Physical Review C, 2007, 76, .	2.9	25
34	Deformation and mixing of coexisting shapes in neutron-deficient polonium isotopes. Physical Review C, 2015, 92, .	2.9	25

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37	<p>http://www.w3.org/1998/Math/MathML display="inline"> <mml:mi>E</mml:mi> <mml:mn>2</mml:mn> </mml:math> decay strength of the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> <mml:mi>M</mml:mi> <mml:mn>1</mml:mn> </mml:math> scissors mode of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> <mml:mi>E</mml:mi> <mml:mn>2</mml:mn> </mml:math></p>	7.8	25
38	<p>Lifetimes of odd-spin yrast states in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> <mml:mi>Hg</mml:mi> </mml:math> <mml:mprescripts /> <mml:none /> <mml:mrow> <mml:mn>182</mml:mn> </mml:mrow> </mml:math>. Physical Review C, 2010, 81, .</p>	2.9	24
39	<p>Direct determination of ground-state transition widths of low-lying dipole states in 140 Ce with the self-absorption technique. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 744, 369-374.</p>	4.1	24
40	<p>Constraint on <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> <mml:mn>0</mml:mn> <mml:mi>I</mml:mi> <mml:sup>1/2</mml:sup> </mml:math> <mml:mi>I</mml:mi> <mml:sup>2</mml:sup> </mml:math> <mml:mi>I</mml:mi> </mml:math> Matrix Elements from a Novel Decay Channel of the Scissors Mode: The Case of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> <mml:mi>Gd</mml:mi> </mml:math> <mml:mprescripts /> <mml:none /> <mml:mn>154</mml:mn> </mml:math>. Physical Review Letters, 2013, 111, 172501.</p>	7.8	23
41	<p>Photon scattering experiments off 176Hf and the systematics of low-lying dipole modes in the stable even-even Hf isotopes 176, 178, 180Hf. Physical Review C, 2003, 67, .</p>	2.9	22
42	<p>Study of the pygmy dipole resonance in 94Mo using the coincidence technique. Nuclear Physics A, 2013, 906, 94-107.</p>	1.5	22
43	<p>The pygmy quadrupole resonance and neutron-skin modes in 124 Sn. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2016, 752, 102-107.</p>	4.1	22
44	<p>Experimental study of the low-lying structure of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> <mml:mi>Zr</mml:mi> </mml:math> with the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"> <mml:mi>mo</mml:mi> </mml:math></p>		

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73	Photon scattering experiments on the quasistable, odd-odd mass nucleus ^{176}Lu . <i>Physical Review C</i> , 2007, 75, .	2.9	10
74	Low-lying $J=1$ states in ^{106}Cd . <i>Physical Review C</i> , 2007, 75, .	2.9	10
75	Half-life of the $15/2^+$ state of ^{135}La : A test of $E2$ seniority relations. <i>Physical Review C</i> , 2017, 95, .	2.9	10
76	Lifetimes and shape-coexisting states of ^{99}Zr . <i>Physical Review C</i> , 2019, 100, .	2.9	10
77	Role of Chiral Two-Body Currents in ^{6}Li Magnetic Properties in Light of a New Precision Measurement with the Relative Self-Absorption Technique. <i>Physical Review Letters</i> , 2021, 126, 102501.	7.8	10
78	Dipole response in $^{128,130}\text{Te}$ below the neutron threshold. <i>Physical Review C</i> , 2021, 103, .	2.9	10
79	Lifetime measurements in ^{93}Nb from photon and inelastic neutron scattering. <i>Physical Review C</i> , 2007, 75, .	2.9	9
80	Lifetime measurements probing triple shape coexistence in ^{175}Au . <i>Physical Review C</i> , 2011, 84, .	2.9	9
81	Separation of the 1^+ parity doublet in ^{20}Ne . <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2015, 741, 128-133.		
82	Lifetimes of the 41^+ states of ^{206}Po and ^{204}Po : A study of the transition from noncollective seniority-like mode to collectivity. <i>Physical Review C</i> , 2019, 100, .	2.9	9
83	Addendum: The observation of vibrating pear-shapes in radon nuclei. <i>Nature Communications</i> , 2020, 11, 3560.	12.8	9
84	Collectivity in the light radon nuclei measured directly via Coulomb excitation. <i>Physical Review C</i> , 2015, 91, .	2.9	8
85	Collective $2^+ 1^-$ excitations in ^{206}Po and $^{208,210}\text{Rn}$. <i>European Physical Journal A</i> , 2016, 52, 1.	2.5	8
86	Evolution of quadrupole collectivity in ^{80}Zr toward the 64^+ gap: The ^{80}Zr		

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91	Pauli blocking in the low-lying, low-spin states of ^{141}Pr . Physical Review C, 2008, 78, .	2.9	5
92	Coulomb excitation of ^{107}In . Physical Review C, 2013, 87, .	2.9	5
93	Coulomb excitation of re-accelerated ^{208}Rn and ^{206}Po beams. EPJ Web of Conferences, 2013, 63, 01009.	0.3	5
94	Identification of the $1\hat{1}^-$ state in ^{218}Ra populated via $\hat{1}^\pm$ decay of ^{222}Th . Physical Review C, 2016, 94, .	2.9	5
95	$\hat{1}^\pm$ -decay spectroscopy of the $N=130$ isotones ^{218}Ra and ^{220}Th : Mitigation of $\hat{1}^\pm$ -particle energy summing with implanted nuclei. Physical Review C, 2019, 100, .	2.9	5
96	Structure of high-lying levels populated in the $^{96}\text{Y} \hat{1}^+ \rightarrow ^{96}\text{Zr} \hat{1}^2$ decay. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 820, 136569.	4.1	5
97	New evidence for alpha clustering structure in the ground state band of ^{212}Po . Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2021, 821, 136624.	4.1	5
98	Single-particle states and parity doublets in odd- Z ^{221}Ac and ^{225}Pa . Physical Review C, 2021, 104, .	2.9	5
99	Lifetime Measurements and Coulomb Excitation of Light Hg Nuclei. , 2009, , .		4
100	Transfer Reactions on Neutron-rich Nuclei at REX-ISOLDE. , 2009, , .		4
101	Photoexcitation of the Stable Tl Isotopes Below the Neutron Separation Energy. Acta Physica Polonica B, 2014, 45, 193.	0.8	4
102	The $(n, \hat{1}^3)$ campaigns at EXILL. EPJ Web of Conferences, 2015, 93, 01014.	0.3	4
103	Electric and magnetic dipole strength in ^{66}Zn . Physical Review C, 2021, 103, .	2.9	4
104	Microscopic structure of the one-phonon 2^- states of ^{208}Po . Physical Review C, 2021, 104, .	2.9	4
105	Application programmes at the Scottish Centre for the Application of Plasma-based Accelerators (SCAPA). , 2019, , .		4
106	Collectivity in $^{196,198}\text{Pb}$ isotopes probed in Coulomb-excitation experiments at REX-ISOLDE. Journal of Physics G: Nuclear and Particle Physics, 2017, 44, 064009.	3.6	3
107	Capture cross sections on unstable nuclei. EPJ Web of Conferences, 2017, 146, 01013.	0.3	3
108	Experimental evidence for low-lying quadrupole isovector excitation of ^{208}Po . European Physical Journal A, 2020, 56, 1.	2.5	3

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109	Low-lying dipole excitations in the stable Cd isotopes: A systematics. Physics of Atomic Nuclei, 2001, 64, 1141-1146.	0.4	2
110	Study of the Pygmy Dipole Resonance in [¹²⁴ Sn] by means of the ($\hat{1}\pm, \hat{1}\pm \hat{E}1\hat{1}^3$) reaction. , 2009, , .		2
111	A new differential plunger to measure lifetimes of unbound states in tagged exotic nuclei. , 2011, , .		2
112	Experimental evidences for low-lying octupole isovector states. Journal of Physics: Conference Series, 2012, 366, 012040.	0.4	2
113	Transition probability studies in ¹⁷⁵ Au. Journal of Physics: Conference Series, 2013, 420, 012047.	0.4	2
114	Nuclear Structure Studies of ¹⁰⁶ Pd and ¹⁰⁶ Cd with the (n, n \hat{E}^2 $\hat{1}^3$) Reaction. EPJ Web of Conferences, 2014, 66, 02085.	0.3	2
115	Determination of the $B(\langle i \rangle E \langle i \rangle 3, 0 \langle \sup \rangle + \langle \sup \rangle \hat{\alpha}^{\prime 3} \langle \sup \rangle \hat{\alpha}^{\prime \langle \sup \rangle})$ -excitation strength in octupole-correlated nuclei near $A \hat{\%}^{\wedge} 224$ by the means of Coulomb excitation at REX-ISOLDE. Journal of Physics: Conference Series, 2014, 533, 012007.	0.4	2
116	Dipole strength distributions from HIGS Experiments. EPJ Web of Conferences, 2015, 93, 01031.	0.3	2
117	Shapes and Collectivity in Neutron Deficient Even-Mass ¹⁸⁸ – ¹⁹⁸ Pb Isotopes. , 2015, , .		2
118	Shape coexistence in ⁹⁴ Zr studied via Coulomb excitation. EPJ Web of Conferences, 2019, 223, 01038.	0.3	2
119	Excited states in $\langle \text{mml:math} \rangle$ $\langle \text{xmlns:mml=} \text{"http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:mi} \rangle \text{Ra} \langle \text{mml:mi} \rangle \langle \text{mml:mprescripts} \rangle \langle \text{mml:none} \rangle \langle \text{mml:mn} \rangle 217 \langle \text{mml:mn} \rangle \langle \text{mml:mmultiscripts} \rangle \langle \text{mml:math} \rangle$ populated in the $\langle \text{mml:math} \rangle$ $\langle \text{xmlns:mml=} \text{"http://www.w3.org/1998/Math/MathML"} \rangle \langle \text{mml:mi} \rangle \hat{1}\pm \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ decay of $\langle \text{mml:math} \rangle$	2.9	2
120	Low-lying dipole excitations in nuclei in the mass regions of the new dynamical symmetries. Physics of Atomic Nuclei, 2004, 67, 1682-1687.	0.4	1
121	New findings for mixed-symmetry states. AIP Conference Proceedings, 2006, , .	0.4	1
122	On the origin of low-lying $\langle i \rangle M \langle i \rangle 1$ strength in even-even nuclei. Journal of Physics: Conference Series, 2012, 381, 012047.	0.4	1
123	Search for mixed-symmetry states of nuclei in the vicinity of the double-magic nucleus ²⁰⁸ Pb. EPJ Web of Conferences, 2016, 107, 03004.	0.3	1
124	A study on the transition between seniority-type and collective excitations in ²⁰⁴ Po and ²⁰⁶ Po. EPJ Web of Conferences, 2018, 194, 03002.	0.3	1
125	Search for Isovector Valence-Shell Excitations in ¹⁴⁰ Nd and ¹⁴² Sm via Coulomb excitation reactions of radioactive ion beams. EPJ Web of Conferences, 2018, 194, 03003.	0.3	1
126	Low-lying octupole isovector excitation in ¹⁴⁴ Nd. Physical Review C, 2019, 99, .	2.9	1

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127	Restoring the valence-shell stabilization in Nd140. Physical Review C, 2020, 102, .	2.9	1
128	Firm spin and parity assignments for high-lying, low-spin levels in stable Si isotopes. European Physical Journal A, 2020, 56, 1.	2.5	1
129	Study of Octupole Collectivity in ^{146}Nd and ^{148}Sm Using the New Coulomb Excitation Set-up at ALTO. Acta Physica Polonica B, 2016, 47, 923.	0.8	1
130	β Decay as a New Probe for the Low-energy E1 Strength. Acta Physica Polonica B, 2017, 48, 547.	0.8	1
131	Systematics of low-lying E1 and M1 excitations in heavy nuclei from photon scattering experiments. AIP Conference Proceedings, 2000, , .	0.4	0
132	THE SYSTEMATICS OF DIPOLE MODES IN THE EVEN-EVEN HF NUCLEI. , 2003, , .		0
133	Publisher's Note: Pauli blocking in the low-lying, low-spin states of ^{146}Nd and ^{148}Sm . Physical Review C, 2000, 70, 034302 (2000). Physical Review C, 2000, 70, .	2.9	0
134	Low-lying Collective States in ^{136}Ba . , 2009, , .		0
135	Splitting of the Pygmy Dipole Resonance. , 2011, , .		0
136	Energy separation of the $1^+ / 1^{\pi}$ parity doublet in ^{20}Ne . Journal of Physics: Conference Series, 2012, 366, 012003.	0.4	0
137	Progress on the study of nuclear states with mixed proton-neutron symmetry. EPJ Web of Conferences, 2012, 38, 10001.	0.3	0
138	Photon scattering off ^{94}Zr and ^{96}Zr . Journal of Physics: Conference Series, 2012, 366, 012054.	0.4	0
139	A new plunger device to measure lifetimes of unbound states in tagged exotic nuclei. Journal of Physics: Conference Series, 2012, 381, 012123.	0.4	0
140	One-phonon isovector $2^+_{1,MS}$ state in the neutron rich nucleus ^{132}Te . Journal of Physics: Conference Series, 2012, 366, 012008.	0.4	0
141	A novel decay channel of the 1^+ scissors mode: coupling to the vibrational $\hat{1}^2$ -excitation. EPJ Web of Conferences, 2012, 38, 10004.	0.3	0
142	Decay pattern of the Pygmy Dipole Resonance in ^{130}Te . EPJ Web of Conferences, 2014, 66, 02055.	0.3	0
143	First results of the $(n, \hat{1}^3)$ EXILL campaigns at the Institut Laue Langevin using EXOGAM and FATIMA. Journal of Physics: Conference Series, 2014, 533, 012026.	0.4	0
144	News on the Scissors Mode. Journal of Physics: Conference Series, 2014, 533, 012008.	0.4	0

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145	Quadrupole collectivity in neutron-rich Cd isotopes. EPJ Web of Conferences, 2014, 66, 02012.	0.3	0
146	Quadrupole decay strength of the M1 scissors mode. AIP Conference Proceedings, 2015, , .	0.4	0
147	QPM Analysis of ^{205}Tl Nuclear Excitations below the Giant Dipole Resonance. EPJ Web of Conferences, 2015, 93, 01044.	0.3	0
148	Quadrupole collectivity in neutron-rich Cd isotopes. Journal of Physics: Conference Series, 2015, 580, 012023.	0.4	0
149	Direct Determination of Ground-State Transition Widths and Natural Level Widths with the Method of Relative Self Absorption. EPJ Web of Conferences, 2015, 93, 01035.	0.3	0
150	Decay pattern of the Pygmy Dipole Resonance in ^{140}Ce . EPJ Web of Conferences, 2015, 93, 01048.	0.3	0
151	Do nuclei go pear-shaped? Coulomb excitation of ^{220}Rn and ^{224}Ra at REX-ISOLDE (CERN). EPJ Web of Conferences, 2015, 93, 01038.	0.3	0
152	Search for mixed-symmetry states in ^{212}Po . Journal of Physics: Conference Series, 2016, 724, 012023.	0.4	0
153	Identification of low-energy isovector octupole states in ^{144}Nd . Journal of Physics: Conference Series, 2016, 724, 012050.	0.4	0
154	Investigation of the Photon Strength Function in ^{130}Te . Journal of Physics: Conference Series, 2016, 665, 012039.	0.4	0
155	Study of photon strength functions via ($^{13}\text{a}^{\dagger}$, $^{13}\text{a}^{\epsilon 2}$, $^{13}\text{a}^{\epsilon 3}$) reactions at the ^{13}a -setup. EPJ Web of Conferences, 2018, 178, 03006.	0.3	0
156	Lifetime measurement in neutron-rich A~100 nuclei. EPJ Web of Conferences, 2018, 193, 05003.	0.3	0
157	Low collectivity of the first 2^{+} states of $^{212,210}\text{Po}$. Journal of Physics: Conference Series, 2018, 1023, 012019.	0.4	0
158	Coulomb excitation of pear-shaped nuclei. EPJ Web of Conferences, 2019, 223, 01007.	0.3	0
159	Coulomb Excitation of Proton-rich N = 80 Isotones at HIE-ISOLDE. Journal of Physics: Conference Series, 2020, 1555, 012027.	0.4	0
160	Generating inversion on a nuclear transition - photopumping of ^{103}Rh . European Physical Journal Special Topics, 2001, 11, Pr2-271-Pr2-274.	0.2	0
161	STUDY OF THE PYGMY DIPOLE RESONANCE WITH HADRONIC AND ELECTROMAGNETIC PROBES. , 2013, , .		0
162	A NEW PLUNGER DEVICE FOR INVESTIGATING THE EFFECTS OF DEFORMATION ON PROTON EMISSION RATES VIA LIFETIME MEASUREMENTS. , 2013, , .		0

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163	Lifetime measurements of the low-lying excited states of ^{208}Po . Journal of Physics: Conference Series, 2020, 1555, 012020.	0.4	0
164	Experimental study of lifetimes of excited states in the $K^{\pi} = 0^{\pi}$ octupole band and $\tilde{1}^3$ -vibrational band in ^{228}Th . Journal of Physics: Conference Series, 2020, 1643, 012122.	0.4	0