

M A Riley

List of Publications by Year in descending order

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109
papers

1,919
citations

304743

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110
all docs

110
docs citations

110
times ranked

775
citing authors

#	ARTICLE	IF	CITATIONS
1	Direct Evidence of Octupole Deformation in Neutron-Rich ^{134}Ba . <i>Physical Review Letters</i> , 2016, 116, 112503.	7.8	118
2	Observation of Superdeformation in ^{152}Dy . <i>Physical Review Letters</i> , 1984, 52, 507-510.	7.8	98
3	Wobbling mode in ^{167}Ta . <i>Physical Review C</i> , 2009, 80, .	2.9	77
4	Observation of a Prolate-to-Oblate Shape Change Near Spin $40\hbar$ in ^{158}Er . <i>Physical Review Letters</i> , 1984, 53, 648-651.	7.8	73
5	Landau-Zener crossing in superdeformed ^{193}Hg : Evidence for octupole correlations in superdeformed nuclei. <i>Physical Review Letters</i> , 1990, 65, 1547-1550.	7.8	71
6	Return of Collective Rotation in ^{157}Er and ^{158}Er at Ultrahigh Spin. <i>Physical Review Letters</i> , 2007, 98, 012501.	7.8	62
7	First measurement of magnetic properties in a superdeformed nucleus: ^{193}Hg . <i>Physical Review Letters</i> , 1993, 71, 2176-2179.	7.8	53
8	Near-yrast discrete line \hat{A} -ray spectroscopy of ^{159}Er and ^{160}Er to $1\hat{A}$ or $40\hat{A}$. <i>Journal of Physics G: Nuclear Physics</i> , 1987, 13, 847-881.	0.8	50
9	Signature-Dependent Proton Alignments at High Rotational Frequency and the Persistence of Proton Pairing Correlations. <i>Physical Review Letters</i> , 1985, 54, 1132-1135.	7.8	41
10	The 132 proton intruder orbital in the superdeformed ^{193}Tl nucleus: Effective magnetic moment and blocking of proton pairing. <i>Physical Review C</i> , 1996, 53, R9-R13.	2.9	36
11	Signature inversion and the first observation of a magnetic dipole band in odd-odd rubidium isotopes: ^{82}Rb . <i>Physical Review C</i> , 1999, 59, 71-81.	2.9	32
12	Quadrupole moments of collective structures up to spin $65\hbar$ in ^{157}Er and ^{158}Er : A challenge for understanding triaxiality in nuclei. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2011, 702, 127-130.	4.1	31
13	Highly deformed Bands in ^{175}Hf . <i>Physical Review C</i> , 2004, 70, .	2.9	30
14	Yrast states and band crossings in the neutron-deficient platinum isotopes ^{169}Pt – ^{173}Pt . <i>Physical Review C</i> , 2006, 74, .	2.9	30
15	Spin $50\hbar$ in ^{160}Er and the boundary between collective and non-collective rotation in the light Er isotopes. <i>Journal of Physics G: Nuclear Physics</i> , 1987, 13, L235-L240.	0.8	27
16	Rotational band structures in ^{154}Gd . <i>Journal of Physics G: Nuclear and Particle Physics</i> , 1989, 15, 1871-1892.	3.6	27
17	High-spin gamma-ray spectroscopy of ^{165}W and ^{166}W . <i>Journal of Physics G: Nuclear and Particle Physics</i> , 1992, 18, 1207-1225.	3.6	27
18	Quadrupole Moments of Highly Deformed Structures in the $A \sim 135$ Region: Probing the Single-Particle Motion in a Rotating Potential. <i>Physical Review Letters</i> , 2002, 88, 152501.	7.8	26

#	ARTICLE	IF	CITATIONS
19	Magnetic Moments of Radioactive ^{136}Te and the Emergence of Collectivity. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 1991, 17, 511-523.	7.8	26
20	Yrast band spectroscopy of ^{164}W and the systematics of the first $i_{13/2}$ neutron backband in the neutron deficient rare-earth nuclei. <i>Journal of Physics G: Nuclear and Particle Physics</i> , 1991, 17, 511-523.	3.6	25
21	Tests of microscopic calculations of multiple band structures and large deformations in ^{68}Ge and ^{72}Se . <i>Physical Review C</i> , 1991, 43, 2541-2545.	2.9	25
22	Band structures and alignment properties in ^{74}Se . <i>Physical Review C</i> , 1998, 57, 2912-2923.	2.9	23
23	Observation of $i_{13/2}^{\pi}$ vibrations and alignments built on non-ground-state configurations in ^{156}Dy . <i>Physical Review C</i> , 2015, 91, .	2.9	23
24	The strong interaction strength of the first proton alignment in ^{157}Ho . <i>Journal of Physics G: Nuclear Physics</i> , 1986, 12, L67-L74.	0.8	22
25	Competition between terminating and collective structures above spin $40\hbar$ in ^{154}Dy . <i>Physical Review C</i> , 2002, 65, .	2.9	22
26	High-Spin Structure beyond Band Termination in ^{157}Er . <i>Physical Review Letters</i> , 2004, 92, 252502.	7.8	22
27	Detailed high-spin spectroscopy and the search for the wobbling mode in ^{171}Ta . <i>Physical Review C</i> , 2005, 72, .	2.9	22
28	Ultrahigh-spin spectroscopy of ^{159}Er and ^{160}Er . <i>Physical Review C</i> , 2009, 79, .	2.9	22
29	Structure of ^{160}Er and ^{160}Dy from low to ultrahigh spin. <i>Physical Review C</i> , 2011, 83, .	2.9	22
30	Discrete line β -ray spectroscopy in the $(50\text{--}60)\hbar$ spin domain of $^{161,162}\text{Er}$. <i>Physical Review C</i> , 2000, 62, .	2.9	21
31	New shape minimum in ^{160}Yb : Evidence for a triaxial, strongly deformed band. <i>Physical Review C</i> , 2008, 77, .	2.9	21
32	Loss of collectivity in the transitional ^{156}Er nucleus at high spin. <i>Physical Review C</i> , 2009, 79, .	2.9	21
33	Yrast band spectroscopy of ^{155}Gd and ^{157}Dy . <i>Zeitschrift für Physik A</i> , 1993, 345, 121-122.	0.9	20
34	\tilde{p} -sd Shell Gap Reduction in Neutron-Rich Systems and Cross-Shell Excitations in ^{20}O . <i>Physical Review Letters</i> , 2005, 94, 132501.	7.8	20
35	White paper on nuclear astrophysics and low-energy nuclear physics, Part 2: Low-energy nuclear physics. <i>Progress in Particle and Nuclear Physics</i> , 2017, 94, 68-124.	14.4	20
36	Unpaired band crossings. <i>Physical Review Letters</i> , 1988, 60, 553-556.	7.8	19

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37	Rotational structures in ^{155}Eu and ^{157}Tb . Physical Review C, 1998, 57, 2944-2961.	2.9	19
38	Rotational band structures in ^{89}Sr and ^{153}Gd . Physical Review C, 2002, 66, .	2.9	19
39	^{52}Fe , ^{27}Na from $^{14}\text{C} + ^{14}\text{C}$, and the $N=16$ shell gap. Physical Review C, 2002, 65, .	2.9	18
40	Multiple band structures in ^{169}Ta . Physical Review C, 2006, 74, .	2.9	18
41	Triaxial strongly deformed bands in ^{160}Tm , ^{161}Tm . Physical Review C, 2008, 78, .	2.9	18
42	The spectroscopy of ^{161}Er , ^{162}Er at spins up to $50\hbar$, in the unpaired regime. Journal of Physics G: Nuclear and Particle Physics, 1990, 16, L67-L73.	3.6	17
43	^{139}Pr structures in odd-odd ^{130}Pr and alignment processes in superdeformed praseodymium nuclei. Physical Review C, 1997, 56, R1210-R1214.	2.9	17
44	Unpaired Collective Band Crossings in ^{156}Dy between Spins 35 and 53. Europhysics Letters, 1988, 6, 493-498.	2.0	16
45	High-spin structure in ^{157}Er up to and above band termination. Physical Review C, 2006, 73, .	2.9	16
46	Non-yrast positive-parity structures in the ^{156}Er soft nucleus. Physical Review C, 2006, 73, .	2.9	16
47	State in ^{156}Er . Physical Review C, 2006, 73, .	7.8	16
48	Alignments, shape changes, and band terminations in ^{157}Tm . Physical Review C, 1995, 51, 1234-1246.	2.9	15
49	High resolution gamma-ray spectroscopy and the fascinating angular momentum realm of the atomic nucleus. Physica Scripta, 2016, 91, 123002.	2.5	15
50	Irregularities at high spin in the odd-odd nucleus ^{158}Tm . Physical Review C, 1989, 39, 291-294.	2.9	14
51	Highly deformed band in ^{136}Pm and the anomalous dynamical moment of inertia behavior in the $A \approx 135$ superdeformed region. Physical Review C, 1993, 47, R441-R443.	2.9	14
52	Exploring the $\hbar = 50-60$ domain: collective and terminating structures in ^{156}Dy , ^{159}Er and ^{160}Er . Journal of Physics G: Nuclear and Particle Physics, 1999, 25, 897-899.	3.6	14
53	Band crossings in the positive-parity high-spin states of ^{83}Rb and ^{85}Y . Physical Review C, 1999, 60, .	2.9	14
54	Diverse collective excitations in ^{159}Er up to high spin. Physical Review C, 2011, 84, .	2.9	14

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55	Rotational structures and the wobbling mode in Ta . Physical Review C, 2011, 83, .	2.9	14
56	Three band crossings in the yrast structure of ^{162}Hf . Journal of Physics G: Nuclear Physics, 1988, 14, L77-L84.	0.8	13
57	High precision quadrupole moment measurements of states up to $J=20$ in the yrast band of ^{158}Er . Physical Review C, 2002, 65, .	2.9	13
58	Proton orbital effects in the second minimum of doubly odd ^{132}Pr . Physical Review C, 1997, 55, R985-R989.	2.9	12
59	High-spin structures in ^{155}Tb band signature splitting systematics of the $\tilde{\nu}^{\pm} \chi_{11/2}$ bands in odd- A ^{160}Ni nuclei. Physical Review C, 1998, 58, 2720-2735.	2.9	12
60	Multiple band structures in ^{169}Er . Search for the wobbling mode in ^{169}Er , and residual-interaction analysis of structures in ^{169}Er . Physical Review C, 1998, 58, 2720-2735.	2.9	12
61	The structure of states at very high spin in ^{157}Er . Journal of Physics G: Nuclear and Particle Physics, 1989, 15, 643-659.	3.6	11
62	Multiple superdeformed bands in ^{132}Nd . Physical Review C, 1996, 54, R969-R972.	2.9	11
63	Intrinsic proton states around the superdeformed shell closure $Z=80$. Physical Review C, 1998, 58, 3260-3265.	2.9	10
64	Structure of ^{26}Na from the $C^{14}(C^{14},d)$ reaction. Physical Review C, 2006, 73, .	2.9	10
65	\tilde{I}^2 and \tilde{I}^3 bands in $N=88, 90$, and 92 isotones investigated with a five-dimensional collective Hamiltonian based on covariant density functional theory: Vibrations, shape coexistence, and superdeformation. Physical Review C, 2019, 100, .	2.9	10
66	Structure of ^{224}Ne from ^{14}C on ^{14}C . Physical Review C, 2003, 68, .	2.9	9
67	Observation of the second proton alignment in ^{160}Tm . Physical Review C, 2005, 72, .	2.9	9
68	Rotational structures and their evolution with spin in ^{152}Gd . Physical Review C, 2007, 75, .	2.9	9
69	K -hindered decay of a six-quasiparticle isomer in ^{176}Hf . Alignments, additivity, and signature inversion in odd-odd ^{176}Hf . Physical Review C, 2005, 72, .	2.9	9
70	Ta . A comprehensive high-spin study. Physical Review C, 2010, 81, .	2.9	9
71	Investigation of negative-parity states in ^{156}Dy : Search for evidence of tetrahedral symmetry. Physical Review C, 2017, 95, .	2.9	9
72	The identical bands in ^{177}Ta . Zeitschrift für Physik A, 1993, 346, 319-320.	0.9	8

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73	Highly deformed structures in $^{135,136}\text{Sm}$. Physical Review C, 1998, 58, 3212-3218.	2.9	8
74	Highly deformed rotational structures in ^{136}Pm . Physical Review C, 2000, 62, .	2.9	8
75	High spin spectroscopy in ^{219}Rn : Search for the lower mass boundary of the region of statically octupole-deformed nuclei. Physical Review C, 2017, 96, .	2.9	8
76	Collective structure in ^{70}As . Physical Review C, 1997, 56, 2869-2872.	2.9	7
77	Observation of states beyond band termination in $^{156, 157, 158}\text{Er}$ and strongly deformed structures in $^{173, 174, 175}\text{Hf}$. Physica Scripta, 2006, T125, 123-126.	2.5	7
78	Cullen et al. reply. Physical Review Letters, 1991, 67, 1175-1175.	7.8	6
79	Observation of three-quasiparticle structures in the $N=88$ nucleus ^{153}Tb . Physical Review C, 1998, 58, 1321-1324.	2.9	6
80	Band crossings in ^{166}Ta . Physical Review C, 2010, 82, .	2.9	6
81	Multi-quasiparticle structures up to spin $16\hbar$ in ^{167}Ta . Phys. Rev. C, 2010, 82, .	2.9	5
82	Band crossings in ^{166}Ta . Physical Review C, 2010, 82, .	2.9	5
83	High-spin yrast structure of ^{159}Ho . Physical Review C, 2011, 84, .	2.9	5
84	Collective structures up to spin $\sim 65\hbar$ in the $N=90$ isotones ^{158}Er and ^{157}Ho . Journal of Physics: Conference Series, 2012, 381, 012065.	0.4	5
85	Quadrupole moments of coexisting collective shapes at high spin in ^{154}Er . Physical Review C, 2013, 88, .	2.9	5
86	High-spin structure of odd-odd ^{172}Re . Physical Review C, 2014, 90, .	2.9	5
87	High-spin terminating states in the ^{88}Yb and ^{155}Ho . Physical Review C, 2014, 90, .	2.9	5
88	Backbending, seniority, and Pauli blocking of pairing correlations at high rotational frequencies in rapidly rotating nuclei. Physical Review C, 2019, 100, .	2.9	5
89	High spin structures in ^{194}Hg . Zeitschrift für Physik A, 1996, 354, 169-175.	0.9	4
90	Recent Results at Ultrahigh Spin: Terminating States and Beyond in Mass 160 Rare-earth Nuclei. Acta Physica Polonica B, 2015, 46, 487.	0.8	4

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91	First candidates for $\hat{1}^3$ vibrational bands built on the $[505]11/2\hat{a}^{\sim}$ neutron orbital in odd- A Dy isotopes. Physical Review C, 2020, 101, .	2.9	4
92	Relative quadrupole deformations for structures in odd proton Pr nuclei near mass. Journal of Physics G: Nuclear and Particle Physics, 1999, 25, 893-895.	3.6	3
93	Structure of neutron-rich s-d shell nuclei. Physics of Atomic Nuclei, 2002, 65, 713-719.	0.4	3
94	Beyond band termination in ^{157}Er and the search for wobbling excitations in strongly deformed ^{174}Hf . Journal of Physics G: Nuclear and Particle Physics, 2005, 31, S1735-S1740.	3.6	3
95	Possible deformation evolution in the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \langle \text{mml:mi} \rangle \hat{I} \langle \text{mml:mi} \rangle \langle \text{mml:msub} \langle \text{mml:mi} \rangle i \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \langle \text{mml:mn} \rangle 13 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:msup} \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 171 \langle \text{mml:mn} \rangle \langle \text{mml:msup} \rangle \langle \text{mml:math} \rangle \text{Re. Physical Review C, 2013, 88, .$	2.9	3
96	Persistence of collective behavior at high spin in the $N=88$ nucleus Tb^{153} . Physical Review C, 2015, 91, .	2.9	3
97	First observation of rotational structures in Re^{168} . Physical Review C, 2016, 94, .	2.9	3
98	Relative quadrupole moments of exotic shapes at ultrahigh spin in ^{154}Er : calibrating the TSD/SD puzzle. Journal of Physics: Conference Series, 2012, 381, 012066.	0.4	2
99	Band structures and shape coexistence in ^{187}Pt . European Physical Journal A, 2012, 48, 1.	2.5	2
100	Spectroscopy of Hf^{161} from low to high spin. Physical Review C, 2014, 90, .	2.9	2
101	High-spin states and deformation properties in ^{187}Pt . AIP Conference Proceedings, 2007, , .	0.4	1
102	Fifty Years of Backbending. Nuclear Physics News, 2022, 32, 16-20.	0.4	1
103	The influence of pairing on the properties of the $A=190$ superdeformed bands. AIP Conference Proceedings, 1992, , .	0.4	0
104	Highly deformed structures in the $mass \hat{a}^{\sim} 130$ region and their relative quadrupole moments. , 1999, , .		0
105	Possible triaxial superdeformation in ^{174}Hf . AIP Conference Proceedings, 2002, , .	0.4	0
106	Search For Wobbling Excitations In Hf Nuclei: Are The SD Bands Triaxial?. AIP Conference Proceedings, 2005, , .	0.4	0
107	Modern $\hat{1}^3$ -ray spectroscopy and exotic behavior in rare-earth $N \hat{a}^{\sim} 90$ nuclei at the limits of excitation energy and angular momentum. , 2012, , .		0
108	EXOTIC BEHAVIOR AT ULTRAHIGH SPIN VALUES IN LIGHT RARE-EARTH $N \sim 90$ NUCLEI. , 2013, , .		0

#	ARTICLE	IF	CITATIONS
109	<p>structures in <code><mml:math</code> <code>xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>1/2</mml:mi><mml:msub><mml:mi>1</mml:mi><mml:mi></mml:mi></mml:mrow></mml:math></code> <code></><mml:none /><mml:mn>155</mml:mn></mml:mmultiscripts></mml:math></code> and <code><mml:math</code> <code>xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mmultiscripts><mml:mi>C</mml:mi></mml:math></code> Rev</p>	0	0