De Castro, A S

List of Publications by Year
in descending order

129 papers	1,713 citations	304743 22 h-index	345221 36 g-index
130 all docs	130 docs citations	130 times ranked	384 citing authors

#	Article	IF	Citations
1	Pseudospin symmetry and the relativistic harmonic oscillator. Physical Review C, 2004, 69, .	2.9	217
2	Tensor coupling and pseudospin symmetry in nuclei. Physical Review C, 2005, 71, .	2.9	113
3	Relating pseudospin and spin symmetries through charge conjugation and chiral transformations: The case of the relativistic harmonic oscillator. Physical Review C, 2006, 73, .	2.9	98
4	Klein–Gordon particles in mixed vector–scalar inversely linear potentials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 338, 81-89.	2.1	70
5	Spin and pseudospin symmetries in the antinucleon spectrum of nuclei. Physical Review C, 2010, 81, .	2.9	53
6	On the nonminimal vector coupling in the Duffin–Kemmer–Petiau theory and the confinement of massive bosons by a linear potential. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 055306.	2.1	47
7	Spin and pseudospin symmetries and the equivalent spectra of relativistic spin-1/2 and spin-0 particles. Physical Review C, 2007, 75, .	2.9	42
8	Spin and pseudospin symmetries of the Dirac equation with confining central potentials. Physical Review C, 2013, 87, .	2.9	37
9	Spin and pseudospin symmetries in the Dirac equation with central Coulomb potentials. Physical Review A, 2012, 86, .	2.5	35
10	Bound states of the Dirac equation for a class of effective quadratic plus inversely quadratic potentials. Annals of Physics, 2004, 311, 170-181.	2.8	33
11	Trapping neutral fermions with kink-like potentials. Physics Letters, Section A: General, Atomic and Solid State Physics, 2006, 351, 379-383.	2.1	31
12	Confinement of fermions by mixed vector–scalar linear potentials in two-dimensional space–time. Physics Letters, Section A: General, Atomic and Solid State Physics, 2002, 305, 100-104.	2.1	28
13	Bound states by a pseudoscalar Coulomb potential in one-plus-one dimensions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 318, 40-47.	2.1	26
14	The blackbody radiation in a D-dimensional universes. Revista Brasileira De Ensino De Fisica, 2005, 27, 559-563.	0.2	25
15	Corroborating the equivalence between the Duffin-Kemmer-Petiau and the Klein-Gordon and Proca equations. Physical Review A, 2014, 90, .	2.5	25
16	Confinement of neutral fermions by a pseudoscalar double-step potential in 1+1 dimensions. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 308, 131-134.	2.1	24
17	RELATIVISTIC EFFECTS OF MIXED VECTOR-SCALAR-PSEUDOSCALAR POTENTIALS FOR FERMIONS IN 1+1 DIMENSIONS. International Journal of Modern Physics E, 2007, 16, 3002-3005.	1.0	24
18	Exact closed-form solutions of the Dirac equation with a scalar exponential potential. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 342, 53-59.	2.1	23

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19	Inconsistencies of a purported probability current in the Duffinâ€"Kemmerâ€"Petiau theory. Physics Letters, Section A: General, Atomic and Solid State Physics, 2008, 372, 5964-5967.	2.1	23
20	Bound states of the Duffinâ€"Kemmerâ€"Petiau equation with a mixed minimalâ€"nonminimal vector cusp potential. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 035201.	2.1	23
21	Spinless bosons embedded in a vector Duffinâ€"Kemmerâ€"Petiau oscillator. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2596-2600.	2.1	23
22	A Laplace transform approach to the quantum harmonic oscillator. European Journal of Physics, 2013, 34, 199-204.	0.6	22
23	Approximate analytic expression for the eigenenergies of the anharmonic oscillator $V(x)=Ax^6+Bx^2$. Physical Review A, 1995, 51, 3480-3484.	2.5	21
24	PERTURBATIVE BREAKING OF THE PSEUDOSPIN SYMMETRY IN THE RELATIVISTIC HARMONIC OSCILLATOR. International Journal of Modern Physics D, 2004, 13, 1447-1451.	2.1	21
25	Effects Due to a Scalar Coupling onÂtheÂParticle-Antiparticle Production inÂtheÂDuffin-Kemmer-Petiau Theory. International Journal of Theoretical Physics, 2010, 49, 10-17.	1.2	21
26	Bounded solutions of neutral fermions with a screened Coulomb potential. Annals of Physics, 2005, 320, 56-70.	2.8	20
27	Bounded solutions of fermions in the background of mixed vector-scalar PÃ¶schl-Tellerâ€"like potentials. Europhysics Letters, 2007, 77, 20009.	2.0	19
28	Classes of exact wave functions for general time-dependent Dirac Hamiltonians in 1+1 dimensions. Physical Review A, 2003, 67, .	2.5	18
29	Approximate analytical states of a polynomial potential: an example of symmetry restoration. Physics Letters, Section A: General, Atomic and Solid State Physics, 2000, 269, 281-286.	2.1	17
30	Scattering of neutral fermions by a pseudoscalar potential step in two-dimensional spacetime. Physics Letters, Section A: General, Atomic and Solid State Physics, 2003, 309, 340-344.	2.1	17
31	Comment on Solutions of the Duffinâ€"Kemmerâ€"Petiau equation for a pseudoscalar potential step in (1+1) dimensions. Canadian Journal of Physics, 2009, 87, 857-859.	1.1	17
32	Relativistic confinement of neutral fermions with a trigonometric tangent potential. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 263-270.	2.1	16
33	Absence of Kleinâ€™s paradox for massive bosons coupled by nonminimal vector interactions. Canadian Journal of Physics, 2009, 87, 1185-1189.	1.1	15
34	Comment on â€œFun and frustration with quarkonium in a 1+1 dimension,â€•by R. S. Bhalerao and B. Ram [Am. J. Phys. 69(7), 817â€"818 (2001)]. American Journal of Physics, 2002, 70, 450-451.	0.7	14
35	Exact solution for a fermion in the background of a scalar inversely linear potential. Physics Letters, Section A: General, Atomic and Solid State Physics, 2004, 328, 289-298.	2.1	14
36	Bounded solutions of fermions in the background of mixed vectorâ€"scalar inversely linear potentials. Annals of Physics, 2005, 316, 414-430.	2.8	14

#	ARTICLE	IF	CITATIONS
37	A diquark model for baryon spectroscopy. Zeitschrift Für Physik C-Particles and Fields, 1993, 57, 315-317.	1.5	13
38	Scattering and bound states of spinless particles in a mixed vector–scalar smooth step potential. Annals of Physics, 2009, 324, 2372-2384.	2.8	12
39	On the scattering of massive spinless bosons by a nonminimal vector smooth step potential. Nuclear Physics, Section B, Proceedings Supplements, 2010, 199, 207-210.	0.4	12
40	Exploring a rheonomic system. European Journal of Physics, 2000, 21, 23-26.	0.6	11
41	Confinement of spinless particles by Coulomb potentials in two-dimensional space–time. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 346, 71-76.	2.1	11
42	Confinement of spin-0 and spin-1/2 particles in a mixed vector–scalar coupling with unequal shapes for the potentials. Physica Scripta, 2007, 75, 170-173.	2.5	11
43	An effective singular oscillator for Duffin–Kemmer–Petiau particles with a nonminimal vector coupling: a two-fold degeneracy. Journal of Physics A: Mathematical and Theoretical, 2012, 45, 075302.	2.1	11
44	A pulsating Gaussian wave packet. European Journal of Physics, 1999, 20, L19-L20.	0.6	10
45	Orthogonality criterion for banishing hydrino states from standard quantum mechanics. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 369, 380-383.	2.1	10
46	Bound states of bosons and fermions in a mixed vector–scalar coupling with unequal shapes for the potentials. Physica Scripta, 2008, 77, 045007.	2.5	10
47	Confining solutions of massive spin-0 bosons by a linear nonminimal vector coupling in the Duffin-Kemmer-Petiau theory. Nuclear Physics, Section B, Proceedings Supplements, 2010, 199, 203-206.	0.4	10
48	Missing solution in a Cornell potential. Annals of Physics, 2013, 338, 278-282.	2.8	10
49	Pseudospin and spin symmetries in 1+1 dimensions: The case of the Coulomb potential. Annals of Physics, 2015, 356, 83-94.	2.8	10
50	Exact solution for a three-dimensional three-body problem with harmonic interactions. European Journal of Physics, 1993, 14, 259-261.	0.6	9
51	EFFECTS OF A MIXED VECTOR–SCALAR SCREENED COULOMB POTENTIAL FOR SPINLESS PARTICLES. International Journal of Modern Physics A, 2006, 21, 5141-5149.	1.5	9
52	THE PEREMPTORY INFLUENCE OF A UNIFORM BACKGROUND FOR TRAPPING NEUTRAL FERMIONS WITH AN INVERSELY LINEAR POTENTIAL. International Journal of Modern Physics A, 2006, 21, 2321-2329.	1.5	9
53	Stationary states of fermions in a sign potential with a mixed vector–scalar coupling. Annals of Physics, 2014, 340, 1-12.	2.8	9
54	Scattering and bound states of fermions in a mixed vector–scalar smooth step potential. Annals of Physics, 2014, 346, 164-181.	2.8	9

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55	General spin and pseudospin symmetries of the Dirac equation. Physical Review A, 2015, 92, .	2.5	9
56	From the generalized Morse potential to a unified treatment of the D-dimensional singular harmonic oscillator and singular Coulomb potentials. Journal of Mathematical Chemistry, 2016, 54, 1783-1791.	1.5	9
57	On the quantum Hamilton-Jacobi formalism. Foundations of Physics, 1991, 21, 649-663.	1.3	8
58	Annihilation, glueball and flavor mixing effects in pseudoscalar mesons. European Physical Journal C, 1999, 7, 95-100.	3.9	8
59	SU(3) mixing for excited mesons. Journal of Physics A, 2002, 35, 7585-7595.	1.6	8
60	UNIFIED TREATMENT OF MIXED VECTOR-SCALAR SCREENED COULOMB POTENTIALS FOR FERMIONS. International Journal of Modern Physics E, 2007, 16, 2998-3001.	1.0	8
61	EFFECTS OF A MIXED VECTOR-SCALAR KINK-LIKE POTENTIAL FOR SPINLESS PARTICLES IN TWO-DIMENSIONAL SPACEâ€"TIME. International Journal of Modern Physics A, 2007, 22, 2609-2618.	1.5	8
62	Sobre o limiar para a produção de pares e localização de partÃculas sem spin. Revista Brasileira De Ensino De Fisica, 2007, 29, 203-208.	0.2	8
63	Scattering and bound states of fermions in the modified HulthÃ©n potential. European Physical Journal Plus, 2014, 129, 1.	2.6	8
64	New solutions of the D-dimensional Kleinâ€"Gordon equation via mapping onto the nonrelativistic one-dimensional Morse potential. Annals of Physics, 2017, 378, 88-99.	2.8	8
65	Solutions of the three-dimensional radial Dirac equation from the SchrÃ¶dinger equation with one-dimensional Morse potential. Physics Letters, Section A: General, Atomic and Solid State Physics, 2017, 381, 2050-2054.	2.1	8
66	A potential approach for the gluonium spectrum. Il Nuovo Cimento A, 1989, 101, 423-433.	0.2	7
67	Mass spectra of glueballs and hybrids. Journal of Physics G: Nuclear and Particle Physics, 1990, 16, L81-L83.	3.6	7
68	Approximate expression for the energy of aD-dimensional anharmonic potential. Journal of Physics A, 2003, 36, 1711-1718.	1.6	7
69	On Duffinâ€"Kemmerâ€"Petiau particles with a mixed minimal-nonminimal vector coupling and the nondegenerate bound-states for the one-dimensional inversely linear background. Journal of Mathematical Physics, 2010, 51, 102302.	1.1	7
70	Relativistic pseudospin and spin symmetries in physical systems â€" recent results. Journal of Physics: Conference Series, 2014, 490, 012069.	0.4	7
71	A large class of bound-state solutions of the SchrÃ¶dinger equation via Laplace transform of the confluent hypergeometric equation. Journal of Mathematical Chemistry, 2016, 54, 1287-1295.	1.5	7
72	Relativistic quantum dynamics of scalar bosons under a full vector Coulomb interaction. European Physical Journal C, 2017, 77, 1.	3.9	7

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73	A particle moving in a homogeneous time–varying force. American Journal of Physics, 1984, 52, 557-559.	0.7	6
74	Point transformations are canonical transformations. European Journal of Physics, 1999, 20, L11-L11.	0.6	6
75	Proper treatment of scalar and vector exponential potentials in the Klein-Gordon equation: Scattering and bound states. European Physical Journal Plus, 2019, 134, 1.	2.6	6
76	Damped harmonic oscillator: A correction in some standard textbooks. American Journal of Physics, 1986, 54, 741-742.	0.7	5
77	Electromagnetic angular momentum for a rotating charged shell. American Journal of Physics, 1991, 59, 180-181.	0.7	5
78	Scattering and bound states of spin-0 particles in a nonminimal vector double-step potential. Canadian Journal of Physics, 2012, 90, 481-486.	1.1	5
79	Absence of gluonic components in axial and tensor mesons. European Physical Journal C, 2000, 17, 173-177.	3.9	4
80	n+1 dimensional Dirac equation and the Klein paradox. American Journal of Physics, 2001, 69, 1111-1112.	0.7	4
81	Comment on $lquot$Relativistic extension of shape-invariant potentials$rquot$. Journal of Physics A, 2002, 35, 6203-6204.	1.6	4
82	Trapping of a particle in a short-range harmonic potential well. Journal of Mathematical Chemistry, 2013, 51, 265-277.	1.5	4
83	O oscilador harmônico singular revisitado. Revista Brasileira De Ensino De Fisica, 2013, 35, .	0.2	4
84	Hadronic spectroscopy: Light and heavy mesons. Lettere Al Nuovo Cimento Rivista Internazionale Della Società Italiana Di Fisica, 1985, 43, 161-168.	0.4	3
85	Glueballs as intermediate states in hadronic transitions. Zeitschrift Für Physik C-Particles and Fields, 1990, 46, 453-455.	1.5	3
86	EXACT SOLUTIONS OF THE DIRAC EQUATION FOR MODIFIED COULOMBIC POTENTIALS. International Journal of Modern Physics A, 2000, 15, 4355-4360.	1.5	3
87	Comment on "Wave functions for a Duffin–Kemmer–Petiau particle in a time-dependent potential"[J. Math. Phys. 48, 073515 (2007)]. Journal of Mathematical Physics, 2010, 51, 034101.	1.1	3
88	Unsuitable use of spin and pseudospin symmetries with a pseudoscalar Cornell potential. Chinese Physics B, 2014, 23, 090301.	1.4	3
89	Quasi-exactly-solvable confining solutions for spin-1 and spin-0 bosons in(1+1)-dimensions with a scalar linear potential. Annals of Physics, 2014, 351, 571-578.	2.8	3
90	Relativistic Coulomb scattering of spinless bosons. Physical Review C, 2015, 91, .	2.9	3

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91	Generalizing spin and pseudospin symmetries for relativistic spin 1/2 fermions. Journal of Physics: Conference Series, 2016, 738, 012033.	0.4	3
92	Revisiting the quantum harmonic oscillator via unilateral Fourier transforms. European Journal of Physics, 2016, 37, 015402.	0.6	3
93	Uma breve discussão sobre os possíveis estados ligados para uma classe de potenciais singulares. Revista Brasileira De Ensino De Fisica, 2014, 36, .	0.2	3
94	An alternative method to calculate propagators. European Journal of Physics, 1989, 10, 194-196.	0.6	2
95	Transmission coefficient and two-fold degenerate discrete spectrum of spin-1 bosons in a double-step potential. International Journal of Modern Physics E, 2015, 24, 1550031.	1.0	2
96	From the nonrelativistic Morse potential to a unified treatment of a large class of bound‐state solutions of a modified D‐dimensional Klein–Gordon equation. Astronomische Nachrichten, 2017, 338, 1160-1165.	1.2	2
97	Pure Coulomb tensor interaction in the Dirac equation. Physical Review A, 2019, 99, .	2.5	2
98	SU(3) Breaking and Annihilation Effects in the η and η′ Masses. Modern Physics Letters A, 1997, 12, 121-125.	1.2	1
99	Fermions embedded in a scalar-vector kink-like smooth potential. Journal of Physics: Conference Series, 2015, 630, 012029.	0.4	1
100	Bound States of Spinless Particles in a Short-Range Potential. Zeitschrift Fur Naturforschung - Section A Journal of Physical Sciences, 2015, 70, 245-249.	1.5	1
101	Fermions in a mixed vector-scalar double-step potential via continuous chiral transformation. European Physical Journal Plus, 2016, 131, 1.	2.6	1
102	Equivalence between the Dirac oscillator and a spin-1/2 fermion embedded in a transverse homogeneous magnetic field: movement in a (2 + 1)-dimensional world. Revista Brasileira De Ensino De Fisica, 0, 42, .	0.2	1
103	Sobre o limiar para a produção de pares e localização de partículas sem spin. Revista Brasileira De Ensino De Fisica, 2007, 29, .	0.0	1
104	Estados estacionários de partículas sem spin em potenciais quadrados. Revista Brasileira De Ensino De Fisica, 2008, 30, 2306.1-2306.10.	0.2	1
105	Estados ligados em um potencial delta duplo via transformadas seno e cosseno de Fourier. Revista Brasileira De Ensino De Fisica, 2014, 36, .	0.2	1
106	Comment on 'The relativistic Aharonov–Bohm–Coulomb system with position-dependent mass'. Journal of Physics A: Mathematical and Theoretical, 2021, 54, 028001.	2.1	1
107	A cluster model for hybrids. Il Nuovo Cimento A, 1994, 107, 813-816.	0.2	0
108	Um Problema de Três Corpos Analiticamente Solúvel. Revista Brasileira De Ensino De Fisica, 2001, 23, 289-293.	0.2	0

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109	On the regular-geometric-figure solution to the N -body problem. European Journal of Physics, 2001, 22, 487-490.	0.6	0
110	Constantes de Movimento para um Potencial Dependente da Velocidade. Revista Brasileira De Ensino De Fisica, 2002, 24, 278-284.	0.2	0
111	Harmonic oscillator and nuclear pseudospin. AIP Conference Proceedings, 2004, , .	0.4	0
112	Bounded solutions for nonconserving-parity pseudoscalar potentials. AIP Conference Proceedings, 2004, , .	0.4	0
113	A fermion in a scalar inversely linear potential. AIP Conference Proceedings, 2004, , .	0.4	0
114	Exact closed-form solutions of the Dirac equation for a class of effective Morse potentials. AIP Conference Proceedings, 2004, , .	0.4	0
115	Comment on 'Kepler problem in Dirac theory for a particle with position-dependent mass'. Journal of Physics A, 2005, 38, 6855-6857.	1.6	0
116	Antinucleon spectra in the Dirac equation with scalar and vector Wood-Saxon potentials. , 2009, , .		0
117	Espalhamento e estados ligados em potenciais localizados. Revista Brasileira De Ensino De Fisica, 2011, 33, 4312-4312.	0.2	0
118	O exemplo mais simples do uso do mÃ©todo das imagens. Revista Brasileira De Ensino De Fisica, 2014, 36, .	0.2	0
119	Comment on "Energy Spectrum of a Dirac Particle with Position-Dependent Mass Under the Influence of the Aharonov-Casher Effect". Brazilian Journal of Physics, 2021, 51, 19-21.	1.4	0
120	Green's function for the one-dimensional Helmholtz equation: closed-form solution from its Fourier sine series. Revista Brasileira De Ensino De Fisica, 0, 43, .	0.2	0
121	Spin in a planar relativistic fermion problem. Physics Letters, Section A: General, Atomic and Solid State Physics, 2021, 404, 127412.	2.1	0
122	Potenciais delta revisitados via transformada de Fourier. Revista Brasileira De Ensino De Fisica, 2012, 34, .	0.2	0
123	Estados ligados em um potencial delta duplo via transformada de Laplace. Revista Brasileira De Ensino De Fisica, 2012, 34, .	0.2	0
124	Oscilador harmÃ´nico: Uma anÃ¡lise via sÃ©ries de Fourier. Revista Brasileira De Ensino De Fisica, 2014, 36, .	0.2	0
125	Equivalence between the planar Dirac oscillator and a spin-1/2 fermion embedded in a transverse homogeneous magnetic field. Revista Brasileira De Ensino De Fisica, 2019, 41, .	0.2	0
126	A caveat about applications of the unilateral Fourier transform. Revista Brasileira De Ensino De Fisica, 0, 42, .	0.2	0

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127	Frustating use of the Laplace transform for the quantum states of a particle in a box. Revista Brasileira De Ensino De Fisica, 0, 42, .	0.2	0
128	Quantum states of a particle in a box via unilateral Fourier transform. Revista Brasileira De Ensino De Fisica, 0, 42, .	0.2	0
129	More on the quantum harmonic oscillator via unilateral Fourier transform. Revista Brasileira De Ensino De Fisica, 0, 44, .	0.2	0