Nasser Saad

List of Publications by Year
in descending order

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81 papers	2,132 citations	236925 25 h-index	243625 44 g-index
82 all docs	82 docs citations	82 times ranked	587 citing authors

#	Article	IF	Citations
1	Asymptotic iteration method for eigenvalue problems. Journal of Physics A, 2003, 36, 11807-11816.	1.6	454
2	Construction of exact solutions to eigenvalue problems by the asymptotic iteration method. Journal of Physics A, 2005, 38, 1147-1155.	1.6	186
3	Perturbation theory in a framework of iteration methods. Physics Letters, Section A: General, Atomic and Solid State Physics, 2005, 340, 388-396.	2.1	156
4	The Kleinâ€“Gordon equation with a generalized HulthÃ©n potential inD-dimensions. Physica Scripta, 2007, 76, 623-627.	2.5	68
5	Quantum information entropies for an asymmetric trigonometric Rosenâ€“Morse potential. Annalen Der Physik, 2013, 525, 934-943.	2.4	64
6	Iterative solutions to the Dirac equation. Physical Review A, 2005, 72, .	2.5	63
7	Criterion for polynomial solutions to a class of linear differential equations of second order. Journal of Physics A, 2006, 39, 13445-13454.	1.6	55
8	Spiked harmonic oscillators. Journal of Mathematical Physics, 2002, 43, 94-112.	1.1	50
9	Casimir force in Randall-Sundrum models with<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>q</mml:mi><mml:mo>+</mml:mo><mml:mn>1</mml:mn></mml:math>dimensions. Physical Review D, 2008, 78, .	4.7	49
10	On some formulas for the Appell functionF₂(a, b, bâ€²;c, câ€²;w; z). Integral Transforms and Special Functions, 2014, 25, 111-123.	1.2	49
11	Variational analysis for a generalized spiked harmonic oscillator. Journal of Physics A, 2000, 33, 569-578.	1.6	43
12	Some formulas for the Appell functionF₁(a, b, bâ€²;c; w, z). Integral Transforms and Special Functions, 2012, 23, 793-802.	1.2	42
13	Sextic anharmonic oscillators and orthogonal polynomials. Journal of Physics A, 2006, 39, 8477-8486.	1.6	38
14	ASYMPTOTIC ITERATION METHOD FOR SINGULAR POTENTIALS. International Journal of Modern Physics A, 2008, 23, 1405-1415.	1.5	37
15	Matrix elements for a generalized spiked harmonic oscillator. Journal of Mathematical Physics, 1998, 39, 6345-6352.	1.1	36
16	Physical applications of second-order linear differential equations that admit polynomial solutions. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 415206.	2.1	36
17	Recursion formulas for Appellâ€™s hypergeometric function<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si3.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi>F</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></mml:mrow></mml:msub></mml:mrow></mml:math> and some applications to radiation field problems. Applied Mathematics and Computation, 2009, 207, 545-558.	2.2	35
18	Generalized spiked harmonic oscillator. Journal of Physics A, 2001, 34, 1169-1179.	1.6	33

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19	Integrals containing confluent hypergeometric functions with applications to perturbed singular potentials. Journal of Physics A, 2003, 36, 7771-7788.	1.6	31
20	Some reduction and transformation formulas for the Appell hypergeometric function <mml:math altimg="si1.gif" overflow="scroll" xmlns:xocs="http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tb="http://www.elsevier.com/xml/common/table/dtd" xmlns:sb="http://www.elsevier.com/xml/co	1.0	30
21	The Klein-Gordon equation with the Kratzer potential in d dimensions. Open Physics, 2008, 6, .	1.7	30
22	Smooth transformations of Kratzerâ€™s potential in N dimensions. Journal of Chemical Physics, 1998, 109, 2983-2986.	3.0	28
23	Coherent states associated with the wavefunctions and the spectrum of the isotonic oscillator. Journal of Physics A, 2004, 37, 4567-4577.	1.6	28
24	Energies and wave functions for a soft-core Coulomb potential. Physical Review A, 2009, 80, .	2.5	27
25	On some formulas for the Appell functionF₃(a,aâ€²,b,bâ€²;c;w,z). Integral Transforms and Special Functions, 2015, 26, 910-923.	1.2	26
26	Perturbation expansions for the spiked harmonic oscillator and related series involving the gamma function. Journal of Physics A, 2000, 33, 5531-5537.	1.6	24
27	Soft-core Coulomb potentials and Heunâ€™s differential equation. Journal of Mathematical Physics, 2010, 51, 022107.	1.1	22
28	Study of a confined hydrogenâ€like atom by the asymptotic iteration method. International Journal of Quantum Chemistry, 2009, 109, 931-937.	2.0	19
29	Energy bounds for a class of singular potentials and some related series. Journal of Physics A, 2003, 36, 487-498.	1.6	18
30	Energy bounds for the spiked harmonic oscillator. Canadian Journal of Physics, 1995, 73, 493-496.	1.1	17
31	Study of the Generalized Quantum Isotonic Nonlinear Oscillator Potential. Advances in Mathematical Physics, 2011, 2011, 1-20.	0.8	17
32	On some formulas for the Appell function F4(a,b;c,câ€²;w,z). Integral Transforms and Special Functions, 2017, 28, 629-644.	1.2	16
33	Bounds on SchrÃ¶dinger eigenvalues for polynomial potentials in N dimensions. Journal of Mathematical Physics, 1997, 38, 4909-4913.	1.1	15
34	Generalized quantum isotonic nonlinear oscillator inddimensions. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 465304.	2.1	15
35	Spectral characteristics for a spherically confined â^'a/r+br²potential. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 185307.	2.1	15
36	Exact and approximate solutions of SchrÃ¶dingerâ€™s equation for a class of trigonometric potentials. Open Physics, 2013, 11, .	1.7	14

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37	The asymptotic iteration method revisited. Journal of Mathematical Physics, 2020, 61, .	1.1	14
38	On the Fractional Order Rodrigues Formula for the Shifted Legendre-Type Matrix Polynomials. Mathematics, 2020, 8, 136.	2.2	14
39	Eigenvalue bounds for transformations of solvable potentials. Journal of Physics A, 1996, 29, 2127-2134.	1.6	13
40	Closed-form sums for some perturbation series involving hypergeometric functions. Journal of Physics A, 2002, 35, 4105-4123.	1.6	13
41	Study of a class of non-polynomial oscillator potentials. Journal of Physics A, 2006, 39, 7745-7756.	1.6	13
42	Eigenvalue bounds for a class of singular potentials inNdimensions. Journal of Physics A, 1999, 32, 133-138.	1.6	12
43	On some polynomial potentials ind-dimensions. Journal of Mathematical Physics, 2013, 54, 082106.	1.1	12
44	Solutions for certain classes of the Riccati differential equation. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 10903-10914.	2.1	11
45	Discrete spectra for confined and unconfined â^'a/r + br2 potentials in d-dimensions. Journal of Mathematical Physics, 2011, 52, .	1.1	11
46	SchrÃ¶dinger spectrum generated by the Cornell potential. Open Physics, 2015, 13, .	1.7	11
47	Eigenvalue bounds for a class of singular potentials. Journal of Physics A, 1998, 31, 963-967.	1.6	10
48	Closed-form sums for some perturbation series involving associated Laguerre polynomials. Journal of Physics A, 2001, 34, 11287-11300.	1.6	10
49	Study of anharmonic singular potentials. Journal of Mathematical Physics, 2005, 46, 022104.	1.1	10
50	Friedrichs extensions of SchrÃ¶dinger operators with singular potentials. Journal of Mathematical Analysis and Applications, 2004, 292, 274-293.	1.0	7
51	Polynomial solutions for a class of second-order linear differential equations. Applied Mathematics and Computation, 2014, 226, 615-634.	2.2	7
52	Exact normalized eigenfunctions for general deformed HulthÃ©n potentials. Journal of Mathematical Physics, 2018, 59, 122103.	1.1	7
53	Some results on the first Appell matrix function F1(A,B,Bâ€²,C;z,w). Linear and Multilinear Algebra, 2020, 68, 278-292.	1.0	7
54	A basis for variational calculations inddimensions. Journal of Physics A, 2004, 37, 11629-11644.	1.6	6

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55	Exact and approximate solutions to SchrÃ¶dingerâ€™s equation with decatic potentials. Open Physics, 2013, 11, 279-290.	1.7	6
56	Exact and approximate solutions of SchrÃ¶dingerâ€™s equation with hyperbolic double-well potentials. European Physical Journal Plus, 2016, 131, 1.	2.6	6
57	Perturbation expansions for a class of singular potentials. Journal of Mathematical Physics, 2003, 44, 5021-5041.	1.1	5
58	Simple formula for computing the Hubbell radiation rectangular source integral. Radiation Physics and Chemistry, 2011, 80, 11-13.	2.8	5
59	Soft and hard confinement of a two-electron quantum system. European Physical Journal Plus, 2014, 129, 1.	2.6	5
60	Calculation of generalized Hubbell rectangular source integral. Applied Radiation and Isotopes, 2011, 69, 90-93.	1.5	4
61	Eigenvalue bounds for polynomial central potentials inddimensions. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 13431-13442.	2.1	3
62	2D-Zernike Polynomials and Coherent State Quantization of the Unit Disc. Mathematical Physics Analysis and Geometry, 2015, 18, 1.	1.0	3
63	Temporally stable coherent states for a free magnetic SchrÃ¶dinger operator. Journal of Mathematical Physics, 2004, 45, 2694-2717.	1.1	2
64	Wave equation and dispersion relations for a compressible rotating fluid. Physics Letters, Section A: General, Atomic and Solid State Physics, 2007, 362, 57-60.	2.1	2
65	Spectra generated by a confined softcore Coulomb potential. Journal of Mathematical Physics, 2014, 55, 082102.	1.1	2
66	Solvable potentials with exceptional orthogonal polynomials. Annalen Der Physik, 2016, 528, 321-334.	2.4	2
67	On the Solutions of Second-Order Differential Equations with Polynomial Coefficients: Theory, Algorithm, Application. Algorithms, 2020, 13, 286.	2.1	2
68	Asymptotic iteration method for the inverse power potentials. European Physical Journal Plus, 2021, 136, 1.	2.6	2
69	Greenâ€™s function for a SchrÃ¶dinger operator and some related summation formulas. Journal of Mathematical Physics, 2005, 46, 073512.	1.1	1
70	Solvable systems of linear differential equations. Journal of Applied Mathematics and Computing, 2009, 31, 475-494.	2.5	1
71	Generalized 2D Laguerre polynomials and their quaternionic extensions. Journal of Computational and Applied Mathematics, 2016, 308, 301-317.	2.0	1
72	On the Finite Orthogonality of q-Pseudo-Jacobi Polynomials. Mathematics, 2020, 8, 1323.	2.2	1

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73	Incomplete symmetric orthogonal polynomials of finite type generated by a generalized Sturmâ€“Liouville theorem. Journal of Mathematical Physics, 2020, 61, 023501.	1.1	1
74	A discrete and q asymptotic iteration method. Journal of Difference Equations and Applications, 2020, 26, 488-509.	1.1	1
75	Exactly solvable SchrÃ¶dinger eigenvalue problems for new anharmonic potentials with variable bumps and depths. European Physical Journal Plus, 2020, 135, 1.	2.6	1
76	Asymptotic iteration method for solving Hahn difference equations. Advances in Difference Equations, 2021, 2021, 354.	3.5	1
77	On All Symmetric and Nonsymmetric Exceptional Orthogonal X1-Polynomials Generated by a Specific Sturmâ€“Liouville Problem. Mathematics, 2022, 10, 2464.	2.2	1
78	On a modified beta function and some applications. Applied Mathematics and Computation, 2011, , .	2.2	0
79	The d-dimensional softcore Coulomb potential and the generalized confluent Heun equation. Journal of Mathematical Physics, 2018, 59, 102105.	1.1	0
80	A Note on the Generalized and Universal Associated Legendre Equations. Communications in Theoretical Physics, 2018, 70, 019.	2.5	0
81	Response to â€œComment on â€˜The asymptotic iteration method revisitedâ€™â€•[J. Math. Phys. 61, 064101 (2020)]. Journal of Mathematical Physics, 2020, 61, 064102.	1.1	0