

Nasser Saad

List of Publications by Year in descending order

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2,132
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236925

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44
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docs citations

82
times ranked

587
citing authors

#	ARTICLE	IF	CITATIONS
1	On All Symmetric and Nonsymmetric Exceptional Orthogonal X_1 -Polynomials Generated by a Specific Sturm-Liouville Problem. <i>Mathematics</i> , 2022, 10, 2464.	2.2	1
2	Asymptotic iteration method for the inverse power potentials. <i>European Physical Journal Plus</i> , 2021, 136, 1.	2.6	2
3	Asymptotic iteration method for solving Hahn difference equations. <i>Advances in Difference Equations</i> , 2021, 2021, 354.	3.5	1
4	Some results on the first Appell matrix function $F_1(A, B, C; z, w)$. <i>Linear and Multilinear Algebra</i> , 2020, 68, 278-292.	1.0	7
5	Response to "Comment on 'The asymptotic iteration method revisited'". <i>J. Math. Phys.</i> 61, 064101 (2020). <i>Journal of Mathematical Physics</i> , 2020, 61, 064102.	1.1	0
6	On the Solutions of Second-Order Differential Equations with Polynomial Coefficients: Theory, Algorithm, Application. <i>Algorithms</i> , 2020, 13, 286.	2.1	2
7	On the Finite Orthogonality of q -Pseudo-Jacobi Polynomials. <i>Mathematics</i> , 2020, 8, 1323.	2.2	1
8	The asymptotic iteration method revisited. <i>Journal of Mathematical Physics</i> , 2020, 61, .	1.1	14
9	Incomplete symmetric orthogonal polynomials of finite type generated by a generalized Sturm-Liouville theorem. <i>Journal of Mathematical Physics</i> , 2020, 61, 023501.	1.1	1
10	On the Fractional Order Rodrigues Formula for the Shifted Legendre-Type Matrix Polynomials. <i>Mathematics</i> , 2020, 8, 136.	2.2	14
11	A discrete and q -asymptotic iteration method. <i>Journal of Difference Equations and Applications</i> , 2020, 26, 488-509.	1.1	1
12	Exactly solvable Schrödinger eigenvalue problems for new anharmonic potentials with variable bumps and depths. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	1
13	Exact normalized eigenfunctions for general deformed Hulthén potentials. <i>Journal of Mathematical Physics</i> , 2018, 59, 122103.	1.1	7
14	The d -dimensional softcore Coulomb potential and the generalized confluent Heun equation. <i>Journal of Mathematical Physics</i> , 2018, 59, 102105.	1.1	0
15	A Note on the Generalized and Universal Associated Legendre Equations. <i>Communications in Theoretical Physics</i> , 2018, 70, 019.	2.5	0
16	On some formulas for the Appell function $F_4(a, b; c, z, w, z)$. <i>Integral Transforms and Special Functions</i> , 2017, 28, 629-644.	1.2	16
17	Generalized 2D Laguerre polynomials and their quaternionic extensions. <i>Journal of Computational and Applied Mathematics</i> , 2016, 308, 301-317.	2.0	1
18	Exact and approximate solutions of Schrödinger equation with hyperbolic double-well potentials. <i>European Physical Journal Plus</i> , 2016, 131, 1.	2.6	6

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19	Solvable potentials with exceptional orthogonal polynomials. Annalen Der Physik, 2016, 528, 321-334.	2.4	2
20	Schrödinger spectrum generated by the Cornell potential. Open Physics, 2015, 13, .	1.7	11
21	2D-Zernike Polynomials and Coherent State Quantization of the Unit Disc. Mathematical Physics Analysis and Geometry, 2015, 18, 1.	1.0	3
22	On some formulas for the Appell function $F_3(a, a^2, b, b^2; c, w, z)$. Integral Transforms and Special Functions, 2015, 26, 910-923.	1.2	26
23	Spectra generated by a confined softcore Coulomb potential. Journal of Mathematical Physics, 2014, 55, 082102.	1.1	2
24	Soft and hard confinement of a two-electron quantum system. European Physical Journal Plus, 2014, 129, 1.	2.6	5
25	On some formulas for the Appell function $F_2(a, b, b^2; c, c^2; w, z)$. Integral Transforms and Special Functions, 2014, 25, 111-123.	1.2	49
26	Polynomial solutions for a class of second-order linear differential equations. Applied Mathematics and Computation, 2014, 226, 615-634.	2.2	7
27	Quantum information entropies for an asymmetric trigonometric Rosen-Morse potential. Annalen Der Physik, 2013, 525, 934-943.	2.4	64
28	Exact and approximate solutions to Schrödinger's equation with decaic potentials. Open Physics, 2013, 11, 279-290.	1.7	6
29	Exact and approximate solutions of Schrödinger's equation for a class of trigonometric potentials. Open Physics, 2013, 11, .	1.7	14
30	On some polynomial potentials ind-dimensions. Journal of Mathematical Physics, 2013, 54, 082106.	1.1	12
31	Some formulas for the Appell function $F_1(a, b, b^2; c; w, z)$. Integral Transforms and Special Functions, 2012, 23, 793-802.	1.2	42
32	Spectral characteristics for a spherically confined $\hat{a}^r a / r + b r^2$ potential. Journal of Physics A: Mathematical and Theoretical, 2011, 44, 185307.	2.1	15
33	Study of the Generalized Quantum Isotonic Nonlinear Oscillator Potential. Advances in Mathematical Physics, 2011, 2011, 1-20.	0.8	17
34	On a modified beta function and some applications. Applied Mathematics and Computation, 2011, , .	2.2	0
35	Calculation of generalized Hubbell rectangular source integral. Applied Radiation and Isotopes, 2011, 69, 90-93.	1.5	4
36	Simple formula for computing the Hubbell radiation rectangular source integral. Radiation Physics and Chemistry, 2011, 80, 11-13.	2.8	5

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37	Discrete spectra for confined and unconfined $\hat{a}^r + \hat{b}^2$ potentials in d -dimensions. Journal of Mathematical Physics, 2011, 52, .	1.1	11
38	Generalized quantum isotonic nonlinear oscillator in d dimensions. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 465304.	2.1	15
39	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
40	Soft-core Coulomb potentials and Heun's differential equation. Journal of Mathematical Physics, 2010, 51, 022107.	1.1	22
41	Solvable systems of linear differential equations. Journal of Applied Mathematics and Computing, 2009, 31, 475-494.	2.5	1
42	Study of a confined hydrogen-like atom by the asymptotic iteration method. International Journal of Quantum Chemistry, 2009, 109, 931-937.	2.0	19
43	Recursion formulas for Appell's hypergeometric function F_2 and some applications to radiation field problems. Applied Mathematics and Computation, 2009, 207, 545-559.	2.5	15
44	Energies and wave functions for a soft-core Coulomb potential. Physical Review A, 2009, 80, .	2.5	27
45	The Klein-Gordon equation with the Kratzer potential in d dimensions. Open Physics, 2008, 6, .	1.7	30
46	ASYMPTOTIC ITERATION METHOD FOR SINGULAR POTENTIALS. International Journal of Modern Physics A, 2008, 23, 1405-1415.	1.5	37
47	Casimir force in Randall-Sundrum models with q dimensions. Physical Review D, 2008, 78, .	4.7	49
48	The Klein-Gordon equation with a generalized Hulthén potential in D -dimensions. Physica Scripta, 2007, 76, 623-627.	2.5	68
49	Eigenvalue bounds for polynomial central potentials in d dimensions. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 13431-13442.	2.1	3
50	Solutions for certain classes of the Riccati differential equation. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 10903-10914.	2.1	11
51	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
52	Sextic anharmonic oscillators and orthogonal polynomials. Journal of Physics A, 2006, 39, 8477-8486.	1.6	38
53	Study of a class of non-polynomial oscillator potentials. Journal of Physics A, 2006, 39, 7745-7756.	1.6	13
54	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

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55	duction and transformation formulas for the Appell hypergeometric function $\langle \text{mml:math altimg= si1.gif" overflow= scroll" xmlns:xocs= http://www.elsevier.com/xml/xocs/dtd" xmlns:xs="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xmlns="http://www.elsevier.com/xml/ja/dtd" xmlns:ja="http://www.elsevier.com/xml/ja/dtd" xmlns:mml="http://www.w3.org/1998/Math/MathML" xmlns:tbl="http://www.elsevier.com/xml/commen/table/dtd" \rangle$	1.0	30
56	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
57	Green's function for a Schrödinger operator and some related summation formulas. Journal of Mathematical Physics, 2005, 46, 073512.	1.1	1
58	Iterative solutions to the Dirac equation. Physical Review A, 2005, 72, .	2.5	63
59	Study of anharmonic singular potentials. Journal of Mathematical Physics, 2005, 46, 022104.	1.1	10
60	Construction of exact solutions to eigenvalue problems by the asymptotic iteration method. Journal of Physics A, 2005, 38, 1147-1155.	1.6	186
61	Temporally stable coherent states for a free magnetic Schrödinger operator. Journal of Mathematical Physics, 2004, 45, 2694-2717.	1.1	2
62	Friedrichs extensions of Schrödinger operators with singular potentials. Journal of Mathematical Analysis and Applications, 2004, 292, 274-293.	1.0	7
63	Coherent states associated with the wavefunctions and the spectrum of the isotonic oscillator. Journal of Physics A, 2004, 37, 4567-4577.	1.6	28
64	A basis for variational calculations in dimensions. Journal of Physics A, 2004, 37, 11629-11644.	1.6	6
65	Asymptotic iteration method for eigenvalue problems. Journal of Physics A, 2003, 36, 11807-11816.	1.6	454
66	Perturbation expansions for a class of singular potentials. Journal of Mathematical Physics, 2003, 44, 5021-5041.	1.1	5
67	Energy bounds for a class of singular potentials and some related series. Journal of Physics A, 2003, 36, 487-498.	1.6	18
68	Integrals containing confluent hypergeometric functions with applications to perturbed singular potentials. Journal of Physics A, 2003, 36, 7771-7788.	1.6	31
69	Spiked harmonic oscillators. Journal of Mathematical Physics, 2002, 43, 94-112.	1.1	50
70	Closed-form sums for some perturbation series involving hypergeometric functions. Journal of Physics A, 2002, 35, 4105-4123.	1.6	13
71	Closed-form sums for some perturbation series involving associated Laguerre polynomials. Journal of Physics A, 2001, 34, 11287-11300.	1.6	10
72	Generalized spiked harmonic oscillator. Journal of Physics A, 2001, 34, 1169-1179.	1.6	33

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73	Variational analysis for a generalized spiked harmonic oscillator. Journal of Physics A, 2000, 33, 569-578.	1.6	43
74	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
75	Eigenvalue bounds for a class of singular potentials in N dimensions. Journal of Physics A, 1999, 32, 133-138.	1.6	12
76	Eigenvalue bounds for a class of singular potentials. Journal of Physics A, 1998, 31, 963-967.	1.6	10
77	Matrix elements for a generalized spiked harmonic oscillator. Journal of Mathematical Physics, 1998, 39, 6345-6352.	1.1	36
78	Smooth transformations of Kratzer's potential in N dimensions. Journal of Chemical Physics, 1998, 109, 2983-2986.	3.0	28
79	Bounds on Schrödinger eigenvalues for polynomial potentials in N dimensions. Journal of Mathematical Physics, 1997, 38, 4909-4913.	1.1	15
80	Eigenvalue bounds for transformations of solvable potentials. Journal of Physics A, 1996, 29, 2127-2134.	1.6	13
81	Energy bounds for the spiked harmonic oscillator. Canadian Journal of Physics, 1995, 73, 493-496.	1.1	17