Axel Schulze-Halberg

List of Publications by Year
in descending order

64 papers	481 citations
13 h-index (687363)	18 g-index (839539)
64 all docs	64 docs citations
64 times ranked	136 citing authors

#	Article	IF	Citations
1	Darboux transformations and reality conditions for stationary Dirac and Klein–Gordon equations in one dimension. International Journal of Modern Physics A, 2022, 37, .	1.5	3
2	Generalized Dunkl-Schrodinger equations: solvable cases, point transformations, and position-dependent mass systems. Physica Scripta, 2022, 97, 085213.	2.5	5
3	Closed-form representations of iterated Darboux transformations for the massless Dirac equation. International Journal of Modern Physics A, 2021, 36, 2150064.	1.5	3
4	First-order Darboux transformations for Dirac equations with arbitrary diagonal potential matrix in two dimensions. European Physical Journal Plus, 2021, 136, 1.	2.6	7
5	Characterization of Darboux transformations for quantum systems with quadratically energy-dependent potentials. Journal of Mathematical Physics, 2021, 62, .	1.1	9
6	Dirac systems with magnetic field and position-dependent mass: Darboux transformations and equivalence with generalized Dirac oscillators. Annals of Physics, 2021, 431, 168534.	2.8	10
7	Inverse-root and inverse-root-exponential potentials: Darboux transformations and elementary Darboux partners. Physica Scripta, 2021, 96, 025206.	2.5	1
8	Wronskian representation of second-order Darboux transformations for Schrödinger equations with quadratically energy-dependent potentials. Physica Scripta, 2020, 95, 015001.	2.5	2
9	Darboux partners of Heun-class potentials for the two-dimensional massless Dirac equation. Annals of Physics, 2020, 421, 168273.	2.8	6
10	Higher-order Darboux transformations for the Dirac equation with position-dependent mass at nonvanishing energy. European Physical Journal Plus, 2020, 135, 1.	2.6	4
11	Generalized Schrödinger equations with quadratical energy-dependence in the potential: Darboux transformations and application to the Heun class. Journal of Mathematical Physics, 2020, 61, 083502.	1.1	1
12	Exactly-Solvable Quantum Systems in Terms of Lambert-W Functions. Few-Body Systems, 2020, 61, 1.	1.5	0
13	Higher-order Darboux transformations and Wronskian representations for Schrödinger equations with quadratically energy-dependent potentials. Journal of Mathematical Physics, 2020, 61, .	1.1	6
14	Arbitrary-order Darboux transformations for two-dimensional Dirac equations with position-dependent mass. European Physical Journal Plus, 2020, 135, 1.	2.6	4
15	Higher-order Darboux transformations for the massless Dirac equation at zero energy. Journal of Mathematical Physics, 2019, 60, 073505.	1.1	11
16	Darboux transformations for the massless Dirac equation with matrix potential: Construction of zero-energy states. European Physical Journal Plus, 2019, 134, 1.	2.6	14
17	Darboux transformations for the massless Dirac equation with matrix potential: Radially symmetric zero-energy states. European Physical Journal Plus, 2019, 134, 1.	2.6	3
18	Rationally extended potentials and Xm-Jacobi–type solutions of the two-dimensional massless Dirac equation. European Physical Journal Plus, 2018, 133, 1.	2.6	2

#	ARTICLE	IF	CITATIONS
19	Higher-order supersymmetric partners of generalized quantum nonlinear oscillators. European Physical Journal Plus, 2018, 133, 1.	2.6	2
20	Generalized Schrödinger equations with energy-dependent potentials: Formalism and applications. Journal of Mathematical Physics, 2018, 59, .	1.1	14
21	Regularity conditions for transformed potentials in the confluent supersymmetry algorithm. International Journal of Modern Physics A, 2018, 33, 1850214.	1.5	1
22	The generalized confluent supersymmetry algorithm: Representations and integral formulas. Journal of Mathematical Physics, 2018, 59, .	1.1	4
23	The Symmetrized Square-Root Potential: Exact Solutions and Application to the Two-Dimensional Massless Dirac Equation. Few-Body Systems, 2018, 59, 1.	1.5	2
24	Quantum models with energy-dependent potentials solvable in terms of exceptional orthogonal polynomials. Annals of Physics, 2017, 378, 234-252.	2.8	5
25	Pseudo-hermitian and <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si11.gif display="inline" overflow="scroll"><mml:mi mathvariant="script">P</mml:mi><mml:mi>T</mml:mi></mml:math>-symmetric quantum systems with energy-dependent potentials: Bound-state solutions and energy spectra. Annals of Physics, 2017, 380, 78-92.	2.8	2
26	Recursive representation of Wronskians in confluent supersymmetric quantum mechanics. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 105301.	2.1	18
27	Construction of zero-energy states in graphene through the supersymmetry formalism. Journal of Physics A: Mathematical and Theoretical, 2017, 50, 365205.	2.1	19
28	Bound states of the two-dimensional Dirac equation for an energy-dependent hyperbolic Scarf potential. Journal of Mathematical Physics, 2017, 58, .	1.1	13
29	Arbitrary-order Jordan chains associated with quantum-mechanical Hamiltonians: Representations and integral formulas. Journal of Mathematical Physics, 2016, 57, 023521.	1.1	8
30	Trigonometric potentials arising from the spheroidal equation: Supersymmetric partners and integral formulas. European Physical Journal Plus, 2016, 131, 1.	2.6	1
31	Generalized quantum nonlinear oscillators: Exact solutions and rational extensions. Journal of Mathematical Physics, 2016, 57, 102103.	1.1	6
32	Confluent Supersymmetric Partners of Quantum Systems Emerging from the Spheroidal Equation. Symmetry, 2015, 7, 412-426.	2.2	4
33	Supersymmetric partners and confinement of a spiked inverted oscillator model. European Physical Journal Plus, 2015, 130, 1.	2.6	2
34	The generalized zero-mode supersymmetry scheme and the confluent algorithm. Annals of Physics, 2015, 354, 353-364.	2.8	18
35	On integral and differential representations of Jordan chains and the confluent supersymmetry algorithm. Journal of Physics A: Mathematical and Theoretical, 2015, 48, 315202.	2.1	22
36	Index dependence of Bessel integral moments. Integral Transforms and Special Functions, 2015, 26, 460-469.	1.2	0

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37	Closed-form solutions and supersymmetric partners of the inverted Mathews-Lakshmanan oscillator. European Physical Journal Plus, 2015, 130, 1.	2.6	4
38	Two-parameter double-oscillator model of Mathews-Lakshmanan type: Series solutions and supersymmetric partners. Journal of Mathematical Physics, 2015, 56, 072106.	1.1	8
39	The confluent supersymmetry algorithm for Dirac equations with pseudoscalar potentials. Journal of Mathematical Physics, 2014, 55, .	1.1	21
40	Time dependent potentials associated with exceptional orthogonal polynomials. Journal of Mathematical Physics, 2014, 55, 123506.	1.1	13
41	Bound State Solutions of the Klein-Gordon Equation for the Mathews-Lakshmanan Oscillator. Few-Body Systems, 2014, 55, 1223-1232.	1.5	4
42	Darboux partners of pseudoscalar Dirac potentials associated with exceptional orthogonal polynomials. Annals of Physics, 2014, 349, 159-170.	2.8	19
43	Wronskian representation for confluent supersymmetric transformation chains of arbitrary order. European Physical Journal Plus, 2013, 128, 1.	2.6	28
44	Higher-dimensional realization of a nonlinear, one-parameter quantum oscillator. European Physical Journal Plus, 2013, 128, 1.	2.6	8
45	Darboux Transformations for Energy-Dependent Potentials and the Klein–Gordon Equation. Mathematical Physics Analysis and Geometry, 2013, 16, 179-193.	1.0	5
46	Darboux operators for linear first-order multi-component equations in arbitrary dimensions. Open Physics, 2013, 11, 457-469.	1.7	1
47	A position-dependent mass model for the Thomas–Fermi potential: Exact solvability and relation to $\hat{\imath}$-doped semiconductors. Annals of Physics, 2013, 333, 323-334.	2.8	7
48	Rational extension and Jacobi-type X_m solutions of a quantum nonlinear oscillator. Journal of Mathematical Physics, 2013, 54, .	1.1	11
49	Higher-order Darboux transformations with foreign auxiliary equations and equivalence with generalized Darboux transformations. Applied Mathematics Letters, 2012, 25, 1520-1527.	2.7	3
50	Combined Sundman–Darboux transformations and solutions of nonlinear ordinary differential equations of second order. Advances in Pure and Applied Mathematics, 2012, 3, .	0.4	0
51	Exact quantization formula for affine linearly energy-dependent potentials. Open Physics, 2011, 9, .	1.7	2
52	Two-dimensional Darboux transformations for non-separable angular equations and solvable non-central potentials. Journal of Mathematical Chemistry, 2011, 49, 1302-1310.	1.5	0
53	Modified Darboux transformations with foreign auxiliary equations. Physics Letters, Section A: General, Atomic and Solid State Physics, 2011, 375, 2513-2518.	2.1	2
54	PROPAGATORS OF GENERALIZED SCHRÖDINGER EQUATIONS RELATED BY HIGHER-ORDER SUPERSYMMETRY. International Journal of Modern Physics A, 2011, 26, 191-207.	1.5	0

#	Article	IF	Citations
55	Darboux transformations for a generalized Dirac equation in two dimensions. Journal of Mathematical Physics, 2010, 51, .	1.1	24
56	Green's functions and trace formulas for generalized Sturm–Liouville problems related by Darboux transformations. Journal of Mathematical Physics, 2010, 51, 053501.	1.1	4
57	Supersymmetry of Generalized Linear Schrödinger Equations in (1+1) Dimensions. Symmetry, 2009, 1, 115-144.	2.2	6
58	AN IMPLICIT SPECTRAL FORMULA FOR GENERALIZED LINEAR SCHRÖDINGER EQUATIONS. International Journal of Modern Physics E, 2009, 18, 1831-1844.	1.0	1
59	Darboux transformations for the time-dependent nonhomogeneous Burgers equation in (1+1) dimensions. Physica Scripta, 2009, 80, 065014.	2.5	7
60	Explicit Darboux transformations of arbitrary order for generalized time-dependent Schrödinger equations. Journal of Physics A: Mathematical and Theoretical, 2009, 42, 115211.	2.1	16
61	DARBOUX TRANSFORMATIONS FOR EFFECTIVE MASS SCHRÖDINGER EQUATIONS WITH ENERGY-DEPENDENT POTENTIALS. International Journal of Modern Physics A, 2008, 23, 537-546.	1.5	12
62	DARBOUX TRANSFORMATIONS FOR TIME-DEPENDENT SCHRÖDINGER EQUATIONS WITH EFFECTIVE MASS. International Journal of Modern Physics A, 2006, 21, 1359-1377.	1.5	32
63	Comment on 'Generalization of the Darboux transformation and generalized harmonic oscillators'. Journal of Physics A, 2005, 38, 5831-5835.	1.6	10
64	A new type of Darboux transformations for the one-dimensional Burgers equation with forcing. Physica Scripta, 0, , .	2.5	1