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A new Numerov-type method for the numerical solution of the Schrödinger equation

DOI: 10.1007/s10910-009-9553-1

Journal of Mathematical Chemistry, 2009, 46, 981-1007.

Source: <https://exaly.com/paper-pdf/46204471/citation-report.pdf>

Version: 2024-04-28

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#	Paper	IF	Citations
98	Two-step high order hybrid explicit method for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2010 , 48, 224-252	2.1	75
97	High algebraic order methods with vanished phase-lag and its first derivative for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2010 , 48, 925-958	2.1	34
96	Multistep methods with vanished phase-lag and its first and second derivatives for the numerical integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2010 , 48, 1092-1143	2.1	30
95	A smooth approximation based on exponential spline solutions for nonlinear fourth order two point boundary value problems. <i>Applied Mathematics and Computation</i> , 2011 , 217, 8447-8457	2.7	10
94	A family of eight-step methods with vanished phase-lag and its derivatives for the numerical integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2011 , 49, 711-764	2.1	23
93	A hybrid method with phase-lag and derivatives equal to zero for the numerical integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2011 , 49, 1330-1356	2.1	36
92	A family of ten-step methods with vanished phase-lag and its first derivative for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2011 , 49, 1843-1888	2.1	11
91	A two-step method with vanished phase-lag and its first two derivatives for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2011 , 49, 2486-2518	2.1	43
90	A NEW SYMMETRIC EIGHT-STEP PREDICTOR-CORRECTOR METHOD FOR THE NUMERICAL SOLUTION OF THE RADIAL SCHRÖDINGER EQUATION AND RELATED ORBITAL PROBLEMS. <i>International Journal of Modern Physics C</i> , 2011 , 22, 133-153	1.1	48
89	MHD Flow of an Incompressible Viscous Fluid through Convergent or Divergent Channels in Presence of a High Magnetic Field. <i>Journal of Applied Mathematics</i> , 2012 , 2012, 1-12	1.1	7
88	A new high order two-step method with vanished phase-lag and its derivatives for the numerical integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2012 , 50, 2351-2373	2.1	5
87	New open modified trigonometrically-fitted Newton-Cotes type multilayer symplectic integrators for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2012 , 50, 782-804	2.1	5
86	High order closed Newton-Cotes exponentially and trigonometrically fitted formulae as multilayer symplectic integrators and their application to the radial Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2012 , 50, 1224-1261	2.1	71
85	A new hybrid two-step method with vanished phase-lag and its first and second derivatives for the numerical solution of the Schrödinger equation and related problems. <i>Journal of Mathematical Chemistry</i> , 2012 , 50, 1861-1881	2.1	6
84	A new four-step hybrid type method with vanished phase-lag and its first derivatives for each level for the approximate integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2013 , 51, 2542-2571	2.1	26
83	A new optimized symmetric 8-step semi-embedded predictor-corrector method for the numerical solution of the radial Schrödinger equation and related orbital problems. <i>Journal of Mathematical Chemistry</i> , 2013 , 51, 1914-1937	2.1	42
82	A new four-step Runge-Kutta type method with vanished phase-lag and its first, second and third derivatives for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2013 , 51, 1418-1445	2.1	7

81	A new modified embedded 5(4) pair of explicit Runge-Kutta methods for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2013 , 51, 937-953	2.1	6
80	New high order multiderivative explicit four-step methods with vanished phase-lag and its derivatives for the approximate solution of the Schrödinger equation. Part I: Construction and theoretical analysis. <i>Journal of Mathematical Chemistry</i> , 2013 , 51, 194-226	2.1	68
79	New optimized explicit modified RKN methods for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2013 , 51, 390-411	2.1	4
78	High order four-step hybrid method with vanished phase-lag and its derivatives for the approximate solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2013 , 51, 532-555	2.1	7
77	A hybrid type four-step method with vanished phase-lag and its first, second and third derivatives for each level for the numerical integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2014 , 52, 2334-2379	2.1	55
76	A new explicit hybrid four-step method with vanished phase-lag and its derivatives. <i>Journal of Mathematical Chemistry</i> , 2014 , 52, 1690-1716	2.1	52
75	Trigonometrically fitted high-order predictor-corrector method with phase-lag of order infinity for the numerical solution of radial Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2014 , 52, 1870-1894	2.1	8
74	A new embedded 5(3) pair of modified Runge-Kutta-Nyström methods for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2014 , 52, 1081-1098	2.1	1
73	A Runge-Kutta type four-step method with vanished phase-lag and its first and second derivatives for each level for the numerical integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2014 , 52, 917-947	2.1	59
72	An explicit four-step method with vanished phase-lag and its first and second derivatives. <i>Journal of Mathematical Chemistry</i> , 2014 , 52, 833-855	2.1	64
71	An explicit linear six-step method with vanished phase-lag and its first derivative. <i>Journal of Mathematical Chemistry</i> , 2014 , 52, 1895-1920	2.1	22
70	A family of explicit linear six-step methods with vanished phase-lag and its first derivative. <i>Journal of Mathematical Chemistry</i> , 2014 , 52, 2087-2118	2.1	55
69	Efficient low computational cost hybrid explicit four-step method with vanished phase-lag and its first, second, third and fourth derivatives for the numerical integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2015 , 53, 1808-1834	2.1	53
68	A new explicit four-step method with vanished phase-lag and its first and second derivatives. <i>Journal of Mathematical Chemistry</i> , 2015 , 53, 402-429	2.1	25
67	A high algebraic order multistage explicit four-step method with vanished phase-lag and its first, second, third, fourth and fifth derivatives for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2015 , 53, 1915-1942	2.1	47
66	A predictor-corrector explicit four-step method with vanished phase-lag and its first, second and third derivatives for the numerical integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2015 , 53, 685-717	2.1	47
65	A Runge-Kutta type implicit high algebraic order two-step method with vanished phase-lag and its first, second, third and fourth derivatives for the numerical solution of coupled differential equations arising from the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2015 , 53, 1239-1256	2.1	84
64	A low computational cost eight algebraic order hybrid method with vanished phase-lag and its first, second, third and fourth derivatives for the approximate solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2015 , 53, 1295-1312	2.1	65

63	A high algebraic order predictor-corrector explicit method with vanished phase-lag and its first, second, third and fourth derivatives for the numerical solution of the Schrödinger equation and related problems. <i>Journal of Mathematical Chemistry</i> , 2015 , 53, 1495-1522	2.1	48
62	A new family of two stage symmetric two-step methods with vanished phase-lag and its derivatives for the numerical integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2015 , 53, 2191-2213	2.1	79
61	A family of embedded explicit six-step methods with vanished phase-lag and its derivatives for the numerical integration of the Schrödinger equation: development and theoretical analysis. <i>Journal of Mathematical Chemistry</i> , 2016 , 54, 1159-1186	2.1	16
60	A new four stages symmetric two-step method with vanished phase-lag and its first derivative for the numerical integration of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2016 , 54, 1187-1211	2.1	48
59	A new high algebraic order four stages symmetric two-step method with vanished phase-lag and its first and second derivatives for the numerical solution of the Schrödinger equation and related problems. <i>Journal of Mathematical Chemistry</i> , 2016 , 54, 1417-1439	2.1	35
58	A family of two stages tenth algebraic order symmetric six-step methods with vanished phase-lag and its first derivatives for the numerical solution of the radial Schrödinger equation and related problems. <i>Journal of Mathematical Chemistry</i> , 2016 , 54, 1835-1862	2.1	15
57	A new eight algebraic order embedded explicit six-step method with vanished phase-lag and its first, second, third and fourth derivatives for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2016 , 54, 1696-1727	2.1	14
56	An implicit symmetric linear six-step methods with vanished phase-lag and its first, second, third and fourth derivatives for the numerical solution of the radial Schrödinger equation and related problems. <i>Journal of Mathematical Chemistry</i> , 2016 , 54, 1010-1040	2.1	17
55	Family of symmetric linear six-step methods with vanished phase-lag and its derivatives and their application to the radial Schrödinger equation and related problems. <i>Journal of Mathematical Chemistry</i> , 2016 , 54, 466-502	2.1	17
54	A new two stage symmetric two-step method with vanished phase-lag and its first, second, third and fourth derivatives for the numerical solution of the radial Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2016 , 54, 442-465	2.1	81
53	An economical eighth-order method for the approximation of the solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 717-733	2.1	61
52	Three stages symmetric six-step method with eliminated phase-lag and its derivatives for the solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 1213-1235	2.1	11
51	An efficient six-step method for the solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 1521-1547	2.1	9
50	An efficient and computational effective method for second order problems. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 1649-1668	2.1	29
49	An efficient and economical high order method for the numerical approximation of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 1755-1778	2.1	19
48	Numerical simulation of 3D nonlinear Schrödinger equations by using the localized method of approximate particular solutions. <i>Engineering Analysis With Boundary Elements</i> , 2017 , 78, 20-25	2.6	6
47	High order computationally economical six-step method with vanished phase-lag and its derivatives for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 987-1013	2.1	10
46	A generator of families of two-step numerical methods with free parameters and minimal phase-lag. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 1808-1832	2.1	33

45	A new fourteenth algebraic order finite difference method for the approximate solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 697-716	2.1	1
44	A new two stages tenth algebraic order symmetric six-step method with vanished phase-lag and its first and second derivatives for the solution of the radial Schrödinger equation and related problems. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 105-131	2.1	14
43	New two stages high order symmetric six-step method with vanished phase-lag and its first, second and third derivatives for the numerical solution of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 503-531	2.1	12
42	Two stages six-step method with eliminated phase-lag and its first, second, third and fourth derivatives for the approximation of the Schrödinger equation. <i>Journal of Mathematical Chemistry</i> , 2017 , 55, 961-986	2.1	12
41	New five-stages two-step method with improved characteristics. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 1567-1594	2.1	15
40	A four stages numerical pair with optimal phase and stability properties. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 81-102	2.1	25
39	A five-stages symmetric method with improved phase properties. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 1313-1338	2.1	15
38	A finite difference pair with improved phase and stability properties. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 170-192	2.1	31
37	A converse stability condition is necessary for a compact higher order scheme on non-uniform meshes for the time-dependent Schrödinger equation. <i>Applied Mathematics Letters</i> , 2018 , 80, 35-40	3.5	5
36	A new three-stages six-step finite difference pair with optimal phase properties for second order initial and/or boundary value problems with periodical and/or oscillating solutions. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 1280-1312	2.1	2
35	New three-stages symmetric two step method with improved properties for second order initial/boundary value problems. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 2591-2616	2.1	20
34	A new six-step algorithm with improved properties for the numerical solution of second order initial and/or boundary value problems. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 1206-1233	2.1	3
33	New three-stages symmetric six-step finite difference method with vanished phase-lag and its derivatives up to sixth derivative for second order initial and/or boundary value problems with periodical and/or oscillating solutions. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 2267-2301	2.1	1
32	New Runge-Kutta type symmetric two-step method with optimized characteristics. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 2454-2484	2.1	13
31	New five-stages finite difference pair with optimized phase properties. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 982-1010	2.1	17
30	A multistep method with optimal properties for second order differential equations. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 1-29	2.1	9
29	A new multistep finite difference pair for the Schrödinger equation and related problems. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 656-686	2.1	3
28	A hybrid finite difference pair with maximum phase and stability properties. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 423-448	2.1	17

27	New finite difference pair with optimized phase and stability properties. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 449-476	2.1	19
26	A new two-step finite difference pair with optimal properties. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 770-798	2.1	18
25	Reaction force surface for the hydrogen transfer reaction in malonaldehyde: A classical wavefront-based formulation. <i>Journal of Theoretical and Computational Chemistry</i> , 2018 , 17, 1850051	1.8	1
24	New four-stages symmetric six-step method with improved phase properties for second order problems with periodical and/or oscillating solutions. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 2898-2928	2.1	2
23	Problem of Molecular Vibrations with the Gaussian Potential. <i>Journal of Structural Chemistry</i> , 2018 , 59, 503-505	0.9	2
22	New Runge-Kutta type symmetric two step finite difference pair with improved properties for second order initial and/or boundary value problems. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 3014-3044	2.1	13
21	New hybrid two-step method with optimized phase and stability characteristics. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 2302-2340	2.1	16
20	New hybrid symmetric two step scheme with optimized characteristics for second order problems. <i>Journal of Mathematical Chemistry</i> , 2018 , 56, 2816-2844	2.1	13
19	A new multistep method with optimized characteristics for initial and/or boundary value problems. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 119-148	2.1	13
18	A multiple stage absolute in phase scheme for chemistry problems. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 2049-2074	2.1	17
17	A Runge-Kutta type crowded in phase algorithm for quantum chemistry problems. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 1983-2006	2.1	19
16	Solving Schrödinger Equation with Scattering Matrices. Bound States of Lennard-Jones Potential. <i>Journal of the Physical Society of Japan</i> , 2019 , 88, 094002	1.5	6
15	A multistage two-step fraught in phase scheme for problems in mathematical chemistry. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 1710-1731	2.1	24
14	A four-stages multistep fraught in phase method for quantum chemistry problems. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 1627-1651	2.1	7
13	A new multistage multistep full in phase algorithm with optimized characteristics for problems in chemistry. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 1112-1139	2.1	6
12	New multistage two-step complete in phase scheme with improved properties for quantum chemistry problems. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 1088-1111	2.1	6
11	A new four-stages two-step phase fitted scheme for problems in quantum chemistry. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 1201-1229	2.1	6
10	A periodic Numerov approach applied to the torsional tunneling splitting in hydrogen peroxide, aliphatic alcohols and phenol. <i>Chemical Physics Letters</i> , 2019 , 728, 195-200	2.5	7

9	A three-stages multistep teeming in phase algorithm for computational problems in chemistry. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 1598-1617	2.1	31
8	New multiple stages multistep method with best possible phase properties for second order initial/boundary value problems. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 834-857	2.1	2
7	New four stages multistep in phase algorithm with best possible properties for second order problems. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 895-917	2.1	7
6	New multiple stages two-step complete in phase algorithm with improved characteristics for second order initial/boundary value problems. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 494-515	2.1	16
5	New multiple stages scheme with improved properties for second order problems. <i>Journal of Mathematical Chemistry</i> , 2019 , 57, 232-262	2.1	6
4	Numerical solution of the Schrödinger equation in nanoscale side-contacted FED applying the finite-difference method. <i>Results in Physics</i> , 2020 , 19, 103502	3.7	4
3	Numerical solution of the Schrödinger equation in polar coordinates using the finite-difference time-domain method. <i>Journal of Computational Electronics</i> , 2020 , 19, 91-102	1.8	3
2	The Numerov-Crank-Nicolson scheme on a non-uniform mesh for the time-dependent Schrödinger equation on the half-axis. <i>Kinetic and Related Models</i> , 2015 , 8, 587-613	2.4	4
1	Theoretical and numerical analysis of a degenerate nonlinear cubic Schrödinger equation. <i>Moroccan Journal of Pure and Applied Analysis</i> , 2022 ,	0.7	