

# S Saha Ray

## List of Publications by Year in descending order

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147  
papers

3,296  
citations

159585

30  
h-index

206112

48  
g-index

148  
all docs

148  
docs citations

148  
times ranked

1341  
citing authors

#	ARTICLE	IF	CITATIONS
1	<p>© analysis, auto-Bäcklund transformation and new exact solutions of <math>\langle \text{mml:math} \text{xmlns:mml=} \text{"http://www.w3.org/1998/Math/MathML"} \text{ altimg="si36.svg"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle</math> Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 50</p> <p>and <math>\langle \text{mml:math} \text{xmlns:mml=} \text{"http://www.w3.org/1998/Math/MathML"} \text{ altimg="si36.svg"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle</math></p>		

#	ARTICLE	IF	CITATIONS
19	Numerical soliton solutions of fractional Newell–Whitehead–Segel equation in binary fluid mixtures. <i>Computational and Applied Mathematics</i> , 2021, 40, 1.	2.2	11
20	Numerical and analytical investigation for solutions of fractional Oskolkov–Benjamin–Bona–Mahony–Burgers equation describing propagation of long surface waves. <i>International Journal of Modern Physics B</i> , 2021, 35, .	2.0	7
21	Invariant analysis with conservation law of time fractional coupled Ablowitz–Kaup–Newell–Segur equations in water waves. <i>Waves in Random and Complex Media</i> , 2020, 30, 530-543.	2.7	11
22	An operational matrix based scheme for numerical solutions of nonlinear weakly singular partial integro-differential equations. <i>Applied Mathematics and Computation</i> , 2020, 367, 124771.	2.2	15
23	Dispersive optical solitons of time-fractional Schrödinger–Hirota equation in nonlinear optical fibers. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 537, 122619.	2.6	35
24	Two-dimensional wavelets operational method for solving Volterra weakly singular partial integro-differential equations. <i>Journal of Computational and Applied Mathematics</i> , 2020, 366, 112411.	2.0	11
25	Lie symmetries, exact solutions and conservation laws of the Oskolkov–Benjamin–Bona–Mahony–Burgers equation. <i>Modern Physics Letters B</i> , 2020, 34, 2050012.	1.9	19
26	Invariant analysis, optimal system of Lie sub-algebra and conservation laws of (3+1)-dimensional KdV–BBM equation. <i>European Physical Journal Plus</i> , 2020, 135, 1.	2.6	2
27	Fractal Ion Acoustic Waves of the Space-Time Fractional Three Dimensional KP Equation. <i>Advances in Mathematical Physics</i> , 2020, 2020, 1-7.	0.8	11
28	New exact solutions for time-fractional Kaup-Kupershmidt equation using improved ( $G^2/G$ )-expansion and extended ( $G^2/G$ )-expansion methods. <i>AEJ - Alexandria Engineering Journal</i> , 2020, 59, 3105-3110.	6.4	33
29	Numerical solution of nonlinear stochastic Itô–Volterra integral equation driven by fractional Brownian motion. <i>Engineering Computations</i> , 2020, 37, 3243-3268.	1.4	9
30	On the invariant analysis, symmetry reduction with group-invariant solution and the conservation laws for (2 + 1)-dimensional modified Heisenberg ferromagnetic system. <i>International Journal of Modern Physics B</i> , 2020, 34, 2050305.	2.0	3
31	New travelling wave and anti-kink wave solutions of space-time fractional (3+1)-Dimensional Jimbo–Miwa equation. <i>Chinese Journal of Physics</i> , 2020, 67, 79-85.	3.9	16
32	A stochastic operational matrix method for numerical solutions of mixed stochastic Volterra–Fredholm integral equations. <i>International Journal of Wavelets, Multiresolution and Information Processing</i> , 2020, 18, 2050005.	1.3	1
33	New soliton solutions of conformable time fractional Caudrey–Dodd–Gibbon–Sawada–Kotera equation in modeling wave phenomena. <i>Modern Physics Letters B</i> , 2019, 33, 1950202.	1.9	10
34	New Optical Soliton Solutions of Nonlinear Evolution Equation Describing Nonlinear Dispersion. <i>Communications in Theoretical Physics</i> , 2019, 71, 1063.	2.5	34
35	The new soliton wave solutions of conformable time-fractional Rosenau–Kawahara-RLW equation. <i>Modern Physics Letters B</i> , 2019, 33, 1950365.	1.9	13
36	Stochastic operational matrix of Chebyshev wavelets for solving multi-dimensional stochastic Itô–Volterra integral equations. <i>International Journal of Wavelets, Multiresolution and Information Processing</i> , 2019, 17, 1950007.	1.3	6

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37	Numerical solutions of stochastic nonlinear point reactor kinetics equations in presence of Newtonian temperature feedback effects. <i>Journal of Computational and Theoretical Transport</i> , 2019, 48, 47-57.	0.8	1
38	On the conservation laws and invariant analysis for time-fractional coupled Fitzhugh-Nagumo equations using the Lie symmetry analysis. <i>European Physical Journal Plus</i> , 2019, 134, 1.	2.6	12
39	Higher-order approximate solutions of fractional stochastic point kinetics equations in nuclear reactor dynamics. <i>Nuclear Science and Techniques/Hewuli</i> , 2019, 30, 1.	3.4	3
40	A novel approach for stochastic solutions of wick-type stochastic time-fractional Benjaminâ€“Bonaâ€“Mahony equation for modeling long surface gravity waves of small amplitude. <i>Stochastic Analysis and Applications</i> , 2019, 37, 377-387.	1.5	8
41	A novel technique based on Bernoulli wavelets for numerical solutions of two-dimensional Fredholm integral equation of second kind. <i>Engineering Computations</i> , 2019, 36, 1798-1819.	1.4	4
42	A novel method for new solutions of time fractional (1+2)-dimensional nonlinear Schrödinger equation involving dual-power law nonlinearity. <i>International Journal of Modern Physics B</i> , 2019, 33, 1950280.	2.0	9
43	The Time-Splitting Spectral Method for the Gerdjikovâ€“Ivanov Equation With the Riesz Fractional Derivative in the Quantum Field Theory. <i>Journal of Computational and Nonlinear Dynamics</i> , 2019, 14, .	1.2	1
44	The Petrovâ€“Galerkin finite element method for the numerical solution of time-fractional Sharmaâ€“Tassoâ€“Olver equation. <i>International Journal of Modeling, Simulation, and Scientific Computing</i> , 2019, 10, 1941007.	1.4	3
45	Lie symmetry analysis and reduction for exact solution of (2+1)-dimensional Bogoyavlenskyâ€“Konopelchenko equation by geometric approach. <i>Modern Physics Letters B</i> , 2018, 32, 1850127.	1.9	19
46	Invariant analysis and conservation laws of $Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 397 Td$ (xmlns:mml="http://www.w3.org/2003/11/22/mathml") dimensional time-fractional ZKâ€“BBM equation in gravity water waves. <i>Computers and Mathematics With Applications</i> , 2018, 75, 2271-2279.	2.7	22
47	The solitons and periodic travelling wave solutions for Doddâ€“Bulloughâ€“Mikhailov and Tzitzeicaâ€“Doddâ€“Bullough equations in quantum field theory. <i>Optik</i> , 2018, 168, 807-816.	2.9	7
48	Lie symmetries analysis and conservation laws for the fractional Calogeroâ€“Degasperisâ€“Ibragimovâ€“Shabat equation. <i>International Journal of Geometric Methods in Modern Physics</i> , 2018, 15, 1850110.	2.0	13
49	Comparison on wavelets techniques for solving fractional optimal control problems. <i>JVC/Journal of Vibration and Control</i> , 2018, 24, 1185-1201.	2.6	31
50	The conservation laws with Lie symmetry analysis for time fractional integrable coupled KdVâ€“mKdV system. <i>International Journal of Non-Linear Mechanics</i> , 2018, 98, 114-121.	2.6	16
51	The Transport Dynamics Induced by Riesz Potential in Modeling Fractional Reactionâ€“Diffusion-Mechanics System. <i>Journal of Computational and Nonlinear Dynamics</i> , 2018, 13, .	1.2	1
52	On the solution of time-fractional KdVâ€“Burgers equation using Petrovâ€“Galerkin method for propagation of long wave in shallow water. <i>Chaos, Solitons and Fractals</i> , 2018, 116, 376-380.	5.1	19
53	Invariant analysis and conservation laws for the time fractional $\frac{\partial^2 u}{\partial x^2} + \frac{\partial^3 u}{\partial x^3} = 0$ Zakharovâ€“Kuznetsov modified equal width equation using Lie group analysis. <i>Computers and Mathematics With Applications</i> , 2018, 76, 2110-2118.		
54	B-spline Wavelet Method for Solving Fredholm Hammerstein Integral Equation Arising from Chemical Reactor Theory. <i>Nonlinear Engineering</i> , 2018, 7, 163-169.	2.7	5

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55	A new Bernoulli wavelet method for accurate solutions of nonlinear fuzzy Hammerstein-Volterra delay integral equations. <i>Fuzzy Sets and Systems</i> , 2017, 309, 131-144.	2.7	43
56	A new method for exact solutions of variant types of time-fractional Korteweg-de Vries equations in shallow water waves. <i>Mathematical Methods in the Applied Sciences</i> , 2017, 40, 106-114.	2.3	21
57	New exact solutions of time fractional modified Kawahara equations in modelling surface tension in shallow-water and capillary gravity water waves. <i>European Physical Journal Plus</i> , 2017, 132, 1.	2.6	5
58	Comparison Between Two Reliable Methods for Accurate Solution of Fractional Modified Fornberg-Whitham Equation Arising in Water Waves. <i>Journal of Computational and Nonlinear Dynamics</i> , 2017, 12, .	1.2	4
59	New double-periodic solutions of fractional Drinfeld-Sokolov-Wilson equation in shallow water waves. <i>Nonlinear Dynamics</i> , 2017, 88, 1869-1882.	5.2	23
60	New Exact Solutions for the Wick-Type Stochastic Kudryashov-Sinelshchikov Equation. <i>Communications in Theoretical Physics</i> , 2017, 67, 197.	2.5	7
61	On conservation laws by Lie symmetry analysis for (2+1)-dimensional Bogoyavlensky-Konopelchenko equation in wave propagation. <i>Computers and Mathematics With Applications</i> , 2017, 74, 1158-1165.	2.7	58
62	New exact solutions for the Wick-type stochastic Zakharov-Kuznetsov equation for modelling waves on shallow water surfaces. <i>Random Operators and Stochastic Equations</i> , 2017, 25, .	0.1	3
63	New exact solutions for the Wick-type stochastic modified Boussinesq equation for describing wave propagation in nonlinear dispersive systems. <i>Chinese Journal of Physics</i> , 2017, 55, 1653-1662.	3.9	4
64	Two-Dimensional Chebyshev Wavelet Method for Camassa-Holm Equation with Riesz Fractional Derivative Describing Propagation of Shallow Water Waves. <i>Fundamenta Informaticae</i> , 2017, 151, 77-89.	0.4	2
65	Lie symmetry analysis and exact solutions of (3+1)-dimensional Burgers equation in mathematical physics. <i>Computers and Mathematics With Applications</i> , 2017, 73, 253-260.	2.7	49
66	Invariant analysis with conservation laws for the time fractional Drinfeld-Sokolov-Satsuma-Hirota equations. <i>Chaos, Solitons and Fractals</i> , 2017, 104, 725-733.	5.1	26
67	New double periodic exact solutions of the coupled Schrödinger-Boussinesq equations describing physical processes in laser and plasma physics. <i>Chinese Journal of Physics</i> , 2017, 55, 2039-2047.	3.9	28
68	A Novel Approach with Time-Splitting Spectral Technique for the Coupled Schrödinger-Boussinesq Equations Involving Riesz Fractional Derivative. <i>Communications in Theoretical Physics</i> , 2017, 68, 301.	2.5	6
69	Numerical solutions of stochastic Fisher equation to study migration and population behavior in biological invasion. <i>International Journal of Biomathematics</i> , 2017, 10, 1750103.	2.9	9
70	The comparison of two reliable methods for the accurate solution of fractional Fisher type equation. <i>Engineering Computations</i> , 2017, 34, 2598-2613.	1.4	2
71	An efficient and novel technique for solving continuously variable fractional order mass-spring-damping system. <i>Engineering Computations</i> , 2017, 34, 2815-2835.	1.4	12
72	Analysis of Lie symmetries with conservation laws for the (3+1) dimensional time-fractional mKdV-ZK equation in ion-acoustic waves. <i>Nonlinear Dynamics</i> , 2017, 90, 1105-1113.	5.2	31



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91	A new analytical modelling for nonlocal generalized Riesz fractional sine-Gordon equation. Journal of King Saud University - Science, 2016, 28, 48-54.	3.5	8
92	Application of Novel Schemes Based on Haar Wavelet Collocation Method for Burger and Boussinesq-Burger Equations. Applied Mathematics and Information Sciences, 2016, 10, 1513-1524.	0.5	10
93	On the Solution of the Nonlinear Fractional Neutron Point-Kinetics Equation with Newtonian Temperature Feedback Reactivity. Nuclear Technology, 2015, 189, 103-109.	1.2	30
94	Improved fractional sub-equation method for (3+1) -dimensional generalized fractional KdV-Zakharov-Kuznetsov equations. Computers and Mathematics With Applications, 2015, 70, 158-166.	2.7	113
95	On the Soliton Solution and Jacobi Doubly Periodic Solution of the Fractional Coupled Schrödinger-KdV Equation by a Novel Approach. International Journal of Nonlinear Sciences and Numerical Simulation, 2015, 16, 79-95.	1.0	12
96	Solution of non-linear neutron point kinetics equations with feedback reactivity in nuclear reactor dynamics. International Journal of Nuclear Energy Science and Technology, 2015, 9, 23.	0.0	3
97	A Novel Analytical Method with Fractional Complex Transform for New Exact Solutions of Time-Fractional Fifth-Order Sawada-Kotera Equation. Reports on Mathematical Physics, 2015, 75, 63-72.	0.8	41
98	New Exact Solutions of Fractional Zakharov-Kuznetsov and Modified Zakharov-Kuznetsov Equations Using Fractional Sub-Equation Method. Communications in Theoretical Physics, 2015, 63, 25-30.	2.5	34
99	A class of time-fractional-order continuous population models for interacting species with stability analysis. Neural Computing and Applications, 2015, 26, 1495-1504.	5.6	7
100	A comparative study on the analytic solutions of fractional coupled sine-Gordon equations by using two reliable methods. Applied Mathematics and Computation, 2015, 253, 72-82.	2.2	11
101	A novel method for travelling wave solutions of fractional Whitham-Broer-Kaup, fractional modified Boussinesq and fractional approximate long wave equations in shallow water. Mathematical Methods in the Applied Sciences, 2015, 38, 1352-1368.	2.3	38
102	Analytical Treatment for Solving a Class of Lane-Emden Equations. International Journal of Applied and Computational Mathematics, 2015, 1, 369-379.	1.6	1
103	A numerical investigation of time-fractional modified Fornberg-Whitham equation for analyzing the behavior of water waves. Applied Mathematics and Computation, 2015, 266, 135-148.	2.2	17
104	Legendre spectral collocation method for Fredholm integro-differential-difference equation with variable coefficients and mixed conditions. Applied Mathematics and Computation, 2015, 268, 575-580.	2.2	18
105	Numerical treatment for the solution of fractional fifth-order Sawada-Kotera equation using second kind Chebyshev wavelet method. Applied Mathematical Modelling, 2015, 39, 5121-5130.	4.2	56
106	Analytical approximate solutions of Riesz fractional diffusion equation and Riesz fractional advection-dispersion equation involving nonlocal space fractional derivatives. Mathematical Methods in the Applied Sciences, 2015, 38, 2840-2849.	2.3	34
107	New approach to find exact solutions of time-fractional Kuramoto-Sivashinsky equation. Physica A: Statistical Mechanics and Its Applications, 2015, 434, 240-245.	2.6	26
108	Hybrid Legendre Block-Pulse functions for the numerical solutions of system of nonlinear Fredholm-Hammerstein integral equations. Applied Mathematics and Computation, 2015, 270, 871-878.	2.2	14

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109	An investigation with Hermite Wavelets for accurate solution of Fractional Jaulentâ€™Miodek equation associated with energy-dependent SchrÃ¶dinger potential. Applied Mathematics and Computation, 2015, 270, 458-471.	2.2	30
110	A new numerical approach for the solution of nonlinear Fredholm integral equations system of second kind by using Bernstein collocation method. Mathematical Methods in the Applied Sciences, 2015, 38, 274-280.	2.3	11
111	Wavelet Methods for Solving Fractional Order Differential Equations. Mathematical Problems in Engineering, 2014, 2014, 1-11.	1.1	8
112	A New Coupled Fractional Reduced Differential Transform Method for the Numerical Solutions of $\frac{d^{\alpha}u}{dx^{\alpha}} + u = 2$ Modelling and Simulation in Engineering, 2014, 2014, 1-12.	1.1	8
113	On the Solutions of Fractional Burgers-Fisher and Generalized Fisherâ€™s Equations Using Two Reliable Methods. International Journal of Mathematics and Mathematical Sciences, 2014, 2014, 1-16.	0.7	30
114	A new approach based on semi-orthogonal B-spline wavelets for the numerical solutions of the system of nonlinear Fredholm integral equations of second kind. Computational and Applied Mathematics, 2014, 33, 859-872.	1.3	11
115	Homotopy perturbation sumudu transform method for solving convective radial fins with temperature-dependent thermal conductivity of fractional order energy balance equation. International Journal of Heat and Mass Transfer, 2014, 76, 162-170.	4.8	23
116	Numerical simulation for solving fractional neutron point kinetic equations using the multi-step differential transform method. Physica Scripta, 2014, 89, 015204.	2.5	6
117	Traveling wave solution of fractional KdV-Burger-Kuramoto equation describing nonlinear physical phenomena. AIP Advances, 2014, 4, 097120.	1.3	16
118	Numerical simulation for fractional order stationary neutron transport equation using Haar wavelet collocation method. Nuclear Engineering and Design, 2014, 278, 71-85.	1.7	11
119	Numerical simulation based on Haar wavelet operational method to solve neutron point kinetics equation involving sinusoidal and pulse reactivity. Annals of Nuclear Energy, 2014, 73, 408-412.	1.8	21
120	Comparison between homotopy perturbation method and optimal homotopy asymptotic method for the soliton solutions of Boussinesqâ€™Burger equations. Computers and Fluids, 2014, 103, 34-41.	2.5	56
121	A two-dimensional Haar wavelet approach for the numerical simulations of time and space fractional Fokkerâ€™Planck equations in modelling of anomalous diffusion systems. Journal of Mathematical Chemistry, 2014, 52, 2277-2293.	1.5	21
122	Numerical solutions for the system of Fredholm integral equations of second kind by a new approach involving semiorthogonal B-spline wavelet collocation method. Applied Mathematics and Computation, 2014, 234, 368-379.	2.2	19
123	A numerical approach based on Haar wavelet operational method to solve neutron point kinetics equation involving imposed reactivity insertions. Annals of Nuclear Energy, 2014, 68, 112-117.	1.8	17
124	Two-dimensional Haar wavelet Collocation Method for the solution of Stationary Neutron Transport Equation in a homogeneous isotropic medium. Annals of Nuclear Energy, 2014, 70, 30-35.	1.8	18
125	The effect of pulse reactivity for stochastic neutron point kinetic equation in nuclear reactor dynamics. International Journal of Nuclear Energy Science and Technology, 2014, 8, 117.	0.0	3
126	Application of Semiorthogonal B-Spline Wavelets for the Solutions of Linear Second Kind Fredholm Integral Equations. Applied Mathematics and Information Sciences, 2014, 8, 1179-1184.	0.5	5



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127	Soliton solutions for time fractional coupled modified KdV equations using new coupled fractional reduced differential transform method. <i>Journal of Mathematical Chemistry</i> , 2013, 51, 2214-2229.	1.5	19
128	Multistep Differential Transform Method for Numerical Solution of Classical Neutron Point Kinetic Equation. <i>Computational Mathematics and Modeling</i> , 2013, 24, 604-615.	0.5	10
129	Numerical solutions and solitary wave solutions of fractional KDV equations using modified fractional reduced differential transform method. <i>Computational Mathematics and Mathematical Physics</i> , 2013, 53, 1870-1881.	0.8	16
130	Haar wavelet operational methods for the numerical solutions of fractional order nonlinear oscillatory Van der Pol system. <i>Applied Mathematics and Computation</i> , 2013, 220, 659-667.	2.2	45
131	Numerical solution of fractional stochastic neutron point kinetic equation for nuclear reactor dynamics. <i>Annals of Nuclear Energy</i> , 2013, 54, 154-161.	1.8	39
132	Numerical solutions of (1 + 1) dimensional time fractional coupled Burger equations using new coupled fractional reduced differential transform method. <i>International Journal of Computing Science and Mathematics</i> , 2013, 4, 1.	0.3	9
133	A New Coupled Fractional Reduced Differential Transform Method for Solving Time Fractional Coupled KdV Equations. <i>International Journal of Nonlinear Sciences and Numerical Simulation</i> , 2013, 14, 501-511.	1.0	5
134	Numerical solution for stochastic point-kinetics equations with sinusoidal reactivity in dynamical system of nuclear reactor. <i>International Journal of Nuclear Energy Science and Technology</i> , 2013, 7, 231.	0.0	14
135	Numerical simulation of stochastic point kinetic equation in the dynamical system of nuclear reactor. <i>Annals of Nuclear Energy</i> , 2012, 49, 154-159.	1.8	36
136	On Haar wavelet operational matrix of general order and its application for the numerical solution of fractional Bagley Torvik equation. <i>Applied Mathematics and Computation</i> , 2012, 218, 5239-5248.	2.2	123
137	An Explicit Finite Difference scheme for numerical solution of fractional neutron point kinetic equation. <i>Annals of Nuclear Energy</i> , 2012, 41, 61-66.	1.8	60
138	The solution of coupled fractional neutron diffusion equations with delayed neutrons. <i>International Journal of Nuclear Energy Science and Technology</i> , 2010, 5, 105.	0.0	31
139	The analytical approximate solution of the multi-term fractionally damped Van der Pol equation. <i>Physica Scripta</i> , 2009, 80, 025003.	2.5	23
140	Application of modified decomposition method for the analytical solution of space fractional diffusion equation. <i>Applied Mathematics and Computation</i> , 2008, 196, 294-302.	2.2	30
141	Analytical solution of a fractional diffusion equation by Adomian decomposition method. <i>Applied Mathematics and Computation</i> , 2006, 174, 329-336.	2.2	85
142	A numerical solution of the coupled sine-Gordon equation using the modified decomposition method. <i>Applied Mathematics and Computation</i> , 2006, 175, 1046-1054.	2.2	61
143	Analytical approximate solution of nonlinear dynamic system containing fractional derivative by modified decomposition method. <i>Applied Mathematics and Computation</i> , 2006, 182, 544-552.	2.2	45
144	An approximate solution of a nonlinear fractional differential equation by Adomian decomposition method. <i>Applied Mathematics and Computation</i> , 2005, 167, 561-571.	2.2	184

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145	Analytical solution of the Bagley Torvik equation by Adomian decomposition method. Applied Mathematics and Computation, 2005, 168, 398-410.	2.2	137
146	Analytical Solution of a Dynamic System Containing Fractional Derivative of Order One-Half by Adomian Decomposition Method. Journal of Applied Mechanics, Transactions ASME, 2005, 72, 290-295.	2.2	64
147	Solution of an extraordinary differential equation by Adomian decomposition method. Journal of Applied Mathematics, 2004, 2004, 331-338.	0.9	37