Kailash C Patidar

List of Publications by Year
in descending order

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54 papers	938 citations	516215 16 h-index	476904 29 g-index
55 all docs	55 docs citations	55 times ranked	339 citing authors

#	Article	IF	Citations
1	On the use of nonstandard finite difference methodsâ€. Journal of Difference Equations and Applications, 2005, 11, 735-758.	0.7	102
2	A survey of numerical techniques for solving singularly perturbed ordinary differential equations. Applied Mathematics and Computation, 2002, 130, 457-510.	1.4	81
3	Numerical simulations of multicomponent ecological models with adaptive methods. Theoretical Biology and Medical Modelling, 2016, 13, 1.	2.1	61
4	Singularly perturbed problems in partial differential equations: a survey. Applied Mathematics and Computation, 2003, 134, 371-429.	1.4	49
5	Numerical Solution of Singular Patterns in One-dimensional Gray-Scott-like Models. International Journal of Nonlinear Sciences and Numerical Simulation, 2014, 15, 437-462.	0.4	43
6	A review on singularly perturbed differential equations with turning points and interior layers. Applied Mathematics and Computation, 2013, 219, 10575-10609.	1.4	42
7	Uniformly convergent non-standard finite difference methods for singularly perturbed differential-difference equations with delay and advance. International Journal for Numerical Methods in Engineering, 2006, 66, 272-296.	1.5	40
8	Îµ-Uniformly convergent fitted methods for the numerical solution of the problems arising from singularly perturbed general DDEs. Applied Mathematics and Computation, 2006, 182, 119-139.	1.4	35
9	Uniformly convergent non-standard finite difference methods for self-adjoint singular perturbation problems. Journal of Computational and Applied Mathematics, 2006, 191, 228-238.	1.1	34
10	Comparison of some recent numerical methods for initial-value problems for stiff ordinary differential equations. Computers and Mathematics With Applications, 2008, 55, 733-744.	1.4	33
11	High order fitted operator numerical method for self-adjoint singular perturbation problems. Applied Mathematics and Computation, 2005, 171, 547-566.	1.4	32
12	Îµ-Uniformly convergent non-standard finite difference methods for singularly perturbed differential difference equations with small delay. Applied Mathematics and Computation, 2006, 175, 864-890.	1.4	26
13	High order parameter uniform numerical method for singular perturbation problems. Applied Mathematics and Computation, 2007, 188, 720-733.	1.4	24
14	A robust fitted operator finite difference method for a two-parameter singular perturbation problem¹. Journal of Difference Equations and Applications, 2008, 14, 1197-1214.	0.7	24
15	Non-standard methods for singularly perturbed problems possessing oscillatory/layer solutions. Applied Mathematics and Computation, 2007, 187, 1147-1160.	1.4	19
16	Contour integral method for European options with jumps. Communications in Nonlinear Science and Numerical Simulation, 2013, 18, 478-492.	1.7	18
17	A fitted numerical method for singularly perturbed parabolic reaction-diffusion problems. Computational and Applied Mathematics, 2013, 32, 509-519.	1.3	17
18	A non-standard finite difference method to solve a model of HIVâ€“Malaria co-infection. Journal of Difference Equations and Applications, 2014, 20, 354-378.	0.7	16

#	Article	IF	Citations
19	A fitted numerical method for a system of partial delay differential equations. Computers and Mathematics With Applications, 2011, 61, 1475-1492.	1.4	14
20	An unconditionally stable nonstandard finite difference method to solve a mathematical model describing Visceral Leishmaniasis. Mathematics and Computers in Simulation, 2021, 187, 171-190.	2.4	14
21	Limitations of Richardsonâ€™s extrapolation for a high order fitted mesh method for self-adjoint singularly perturbed problems. Journal of Applied Mathematics and Computing, 2010, 32, 219-236.	1.2	13
22	Novel fitted operator finite difference methods for singularly perturbed elliptic convectionâ€“diffusion problems in two dimensions. Journal of Difference Equations and Applications, 2012, 18, 799-813.	0.7	13
23	Effect of spatial configuration of an extended nonlinear Kiersteadâ€“Slobodkin reaction-transport model with adaptive numerical scheme. SpringerPlus, 2016, 5, 303.	1.2	13
24	CONTRIBUTIONS TO THE THEORY OF NON-STANDARD FINITE DIFFERENCE METHODS AND APPLICATIONS TO SINGULAR PERTURBATION PROBLEMS. , 2005, , 513-560.		12
25	Solving singularly perturbed advectionâ€“reaction equationsvia non-standard finite difference methods. Mathematical Methods in the Applied Sciences, 2007, 30, 1627-1637.	1.2	12
26	On Richardson extrapolation for fitted operator finite difference methods. Applied Mathematics and Computation, 2008, 201, 465-480.	1.4	12
27	A fitted numerical method for parabolic turning point singularly perturbed problems with an interior layer. Numerical Methods for Partial Differential Equations, 2019, 35, 2407-2422.	2.0	12
28	PERFORMANCE OF RICHARDSON EXTRAPOLATION ON SOME NUMERICAL METHODS FOR A SINGULARLY PERTURBED TURNING POINT PROBLEM WHOSE SOLUTION HAS BOUNDARY LAYERS. Journal of the Korean Mathematical Society, 2014, 51, 679-702.	0.4	12
29	Numerical solution of singularly perturbed two point boundary value problems by spline in compression. International Journal of Computer Mathematics, 2001, 77, 263-283.	1.0	11
30	Spline approximation method to solve an option pricing problem. Journal of Difference Equations and Applications, 2012, 18, 1801-1816.	0.7	11
31	An unconditionally stable nonstandard finite difference method applied to a mathematical model of HIV infection. International Journal of Applied Mathematics and Computer Science, 2013, 23, 357-372.	1.5	11
32	A robust fitted operator finite difference method for singularly perturbed problems whose solution has an interior layer. Mathematics and Computers in Simulation, 2019, 160, 155-167.	2.4	11
33	Numerical Solution of Singularly Perturbed Non-Linear Two Point Boundary Value Problems by Spline in Compression. International Journal of Computer Mathematics, 2002, 79, 271-288.	1.0	10
34	A new fitted operator finite difference method to solve systems of evolutionary reaction-diffusion equations. Quaestiones Mathematicae, 2015, 38, 121-138.	0.2	9
35	Solution of Pattern Waves for Diffusive Fisher-like Non-linear Equations with Adaptive Methods. International Journal of Nonlinear Sciences and Numerical Simulation, 2016, 17, 291-304.	0.4	8
36	A robust fitted numerical method for singularly perturbed turning point problems whose solution exhibits an interior layer. Quaestiones Mathematicae, 2020, 43, 1-24.	0.2	6

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37	Tension Spline for the Solution of Self-adjoint Singular Perturbation Problems. International Journal of Computer Mathematics, 2002, 79, 849-865.	1.0	4
38	Title is missing!. Journal of Computational Analysis and Applications, 2003, 5, 425-451.	0.2	4
39	Exponentially fitted spline approximation method for solving selfadjoint singular perturbation problems. International Journal of Mathematics and Mathematical Sciences, 2003, 2003, 3873-3891.	0.3	4
40	Analysis of a malaria model with a distributed delay. IMA Journal of Applied Mathematics, 2014, 79, 1139-1160.	0.8	4
41	Layer resolving fitted mesh method for parabolic convection-diffusion problems with a variable diffusion. Journal of Applied Mathematics and Computing, 2022, 68, 1245-1270.	1.2	4
42	Non-standard Finite Difference Methods for Dissipative Singular Perturbation Problems. , 2005, , .		3
43	A nonstandard finite difference method for solving a mathematical model of HIV-TB co-infection. Journal of Difference Equations and Applications, 2017, 23, 1105-1132.	0.7	3
44	A robust nonstandard finite difference scheme for pricing real estate index options. Journal of Difference Equations and Applications, 2020, 26, 1471-1493.	0.7	3
45	A non-standard finite difference scheme for a class of predatorâ€“prey systems with non-monotonic functional response. Journal of Difference Equations and Applications, 2021, 27, 1310-1328.	0.7	3
46	Efficient simulation of a slow-fast dynamical system using multirate finite difference schemes. Quaestiones Mathematicae, 2016, 39, 689-714.	0.2	2
47	A fitted numerical method to investigate the effect of various parameters on an ‹scp›MHD‹/scp› flow over an inclined plate. Numerical Methods for Partial Differential Equations, 2016, 32, 106-120.	2.0	2
48	Spectral method for pricing options in illiquid markets. , 2012, , .		1
49	High-order semi-implicit linear multistep LG scheme for a three species competition-diffusion system in two-dimensional spatial domain arising in ecology. Communications in Nonlinear Science and Numerical Simulation, 2020, 84, 105151.	1.7	1
50	Regularity and Discrete Schemes for the Heat Equation on Non-Smooth Domains. AIP Conference Proceedings, 2007, , .	0.3	0
51	Reliable finite element methods for self-adjoint singular perturbation problems. Quaestiones Mathematicae, 2009, 32, 397-413.	0.2	0
52	Limitations and improvements of standard spectral methods for pricing standard options. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2015, 7, 106-113.	0.7	0
53	Fractional-step Î¸-method for solving singularly perturbed problem in ecology. Advances in Computational Mathematics, 2018, 44, 645-671.	0.8	0
54	Pricing Barrier Options Using Integral Transforms. STEAM-H: Science, Technology, Engineering, Agriculture, Mathematics & Health, 2017, , 221-239.	0.0	0