Natesan Srinivasan

List of Publications by Year
in descending order

95 papers	1,441 citations	304743 22 h-index	395702 33 g-index
97 all docs	97 docs citations	97 times ranked	408 citing authors

#	Article	IF	Citations
1	Convergence analysis of a second-order scheme for fractional differential equation with integral boundary conditions. Journal of Applied Mathematics and Computing, 2023, 69, 465-489.	2.5	1
2	Numerical Analysis of Singularly Perturbed System of Parabolic Convection–Diffusion Problem with Regular Boundary Layers. Differential Equations and Dynamical Systems, 2022, 30, 695-717.	1.0	6
3	A novel two-step streamline-diffusion FEM for singularly perturbed 2D parabolic PDEs. Applied Numerical Mathematics, 2022, 172, 259-278.	2.1	4
4	An Efficient DWR-Type a Posteriori Error Bound of SDFEM for Singularly Perturbed Convection–Diffusion PDEs. Journal of Scientific Computing, 2022, 90, 1.	2.3	3
5	Experimenting with Assamese Handwritten Character Recognition. Lecture Notes in Computer Science, 2022, , 219-229.	1.3	0
6	Assamese Character Recognition Using Convolutional Neural Networks. Algorithms for Intelligent Systems, 2022, , 851-859.	0.6	4
7	Stability and error analysis of a fully-discrete numerical method for system of 2D singularly perturbed parabolic PDEs. Computers and Mathematics With Applications, 2022, 110, 135-145.	2.7	2
8	Convergence analysis of a fully-discrete FEM for singularly perturbed two-parameter parabolic PDE. Mathematics and Computers in Simulation, 2022, 197, 185-206.	4.4	1
9	A unified study on superconvergence analysis of Galerkin FEM for singularly perturbed systems of multiscale nature. Journal of Applied Mathematics and Computing, 2021, 66, 221-243.	2.5	2
10	Robust computational method for singularly perturbed system of parabolic convection–diffusion problems with interior layers. Computational and Mathematical Methods, 2021, 3, e1146.	0.8	1
11	A parameter-uniform hybrid finite difference scheme for singularly perturbed system of parabolic convection-diffusion problems. International Journal of Computer Mathematics, 2020, 97, 875-905.	1.8	9
12	SDFEM for singularly perturbed parabolic initial-boundary-value problems on equidistributed grids. Calcolo, 2020, 57, 1.	1.1	2
13	Shape preserving α-fractal rational cubic splines. Calcolo, 2020, 57, 1.	1.1	10
14	A higher-order hybrid numerical scheme for singularly perturbed convection-diffusion problem with boundary and weak interior layers. International Journal of Mathematical Modelling and Numerical Optimisation, 2020, 10, 68.	0.2	2
15	Numerical solution of 2D singularly perturbed reaction–diffusion system with multiple scales. Computers and Mathematics With Applications, 2020, 80, 36-53.	2.7	3
16	SDFEM for singularly perturbed boundary-value problems with two parameters. Journal of Applied Mathematics and Computing, 2020, 64, 591-614.	2.5	9
17	Fractal Cubic Spline Methods for Singular Boundary-Value Problems. International Journal of Applied and Computational Mathematics, 2020, 6, 1.	1.6	1
18	A Uniformly Convergent Numerical Scheme for a Coupled System of Singularly Perturbed Reaction-Diffusion Equations. Numerical Functional Analysis and Optimization, 2020, 41, 1172-1189.	1.4	6

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19	Study of the NIPG method for two–parameter singular perturbation problems on several layer adapted grids. Journal of Applied Mathematics and Computing, 2020, 63, 683-705.	2.5	14
20	An μ-uniform hybrid numerical scheme for a singularly perturbed degenerate parabolic convection–diffusion problem. International Journal of Computer Mathematics, 2019, 96, 1313-1334.	1.8	14
21	Parameter-uniform fractional step hybrid numerical scheme for 2D singularly perturbed parabolic convection–diffusion problems. Journal of Applied Mathematics and Computing, 2019, 60, 51-86.	2.5	9
22	Fractal Quintic Spline Solutions for Fourth-Order Boundary-Value Problems. International Journal of Applied and Computational Mathematics, 2019, 5, 1.	1.6	2
23	A robust computational method for singularly perturbed system of 2D parabolic convection-diffusion problems. International Journal of Mathematical Modelling and Numerical Optimisation, 2019, 9, 127.	0.2	0
24	An efficient robust numerical method for singularly perturbed Burgers' equation. Applied Mathematics and Computation, 2019, 346, 385-394.	2.2	25
25	Parameter-uniform numerical method for singularly perturbed 2D delay parabolic convection–diffusion problems on Shishkin mesh. Journal of Applied Mathematics and Computing, 2019, 59, 207-225.	2.5	8
26	An asymptotic-numerical hybrid method for singularly perturbed system of two-point reaction-diffusion boundary-value problems. Turkish Journal of Mathematics, 2019, 43, 460-472.	0.7	1
27	A robust computational method for singularly perturbed system of 2D parabolic convection-diffusion problems. International Journal of Mathematical Modelling and Numerical Optimisation, 2019, 9, 127.	0.2	1
28	Fractional Step Method for Singularly Perturbed 2D Delay Parabolic Convection Diffusion Problems on Shishkin Mesh. International Journal of Applied and Computational Mathematics, 2018, 4, 1.	1.6	5
29	Higher-order convergence with fractional-step method for singularly perturbed 2D parabolic convection–diffusion problems on Shishkin mesh. Computers and Mathematics With Applications, 2018, 75, 2387-2403.	2.7	11
30	Richardson extrapolation technique for singularly perturbed system of parabolic partial differential equations with exponential boundary layers. Applied Mathematics and Computation, 2018, 333, 254-275.	2.2	12
31	Second-order uniformly convergent numerical method for singularly perturbed delay parabolic partial differential equations. International Journal of Computer Mathematics, 2018, 95, 490-510.	1.8	26
32	Superconvergence of discontinuous Galerkin method with interior penalties for singularly perturbed two-point boundary-value problems. Calcolo, 2018, 55, 1.	1.1	10
33	Uniformly convergent numerical method for singularly perturbed 2D delay parabolic convection-diffusion problems on Bakhvalov-Shishkin mesh. International Journal of Mathematical Modelling and Numerical Optimisation, 2018, 8, 305.	0.2	0
34	A Uniformly Convergent NIPG Method for a Singularly Perturbed System of Reaction–Diffusion Boundary-Value Problems. Springer Proceedings in Mathematics and Statistics, 2018, , 429-440.	0.2	0
35	A finite element superconvergence approximations for singularly perturbed system of convection-diffusion problems. AIP Conference Proceedings, 2018, , .	0.4	1
36	Constrained and convex interpolation through rational cubic fractal interpolation surface. Computational and Applied Mathematics, 2018, 37, 6308-6331.	1.3	3

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37	Uniformly convergent numerical method for singularly perturbed 2D delay parabolic convection-diffusion problems on Bakhvalov-Shishkin mesh. International Journal of Mathematical Modelling and Numerical Optimisation, 2018, 8, 305.	0.2	1
38	Îµ-Uniformly convergent numerical scheme for singularly perturbed delay parabolic partial differential equations. International Journal of Computer Mathematics, 2017, 94, 902-921.	1.8	44
39	Alternating direction numerical scheme for singularly perturbed 2D degenerate parabolic convection-diffusion problems. Applied Mathematics and Computation, 2017, 313, 453-473.	2.2	11
40	Second-Order Uniformly Convergent Richardson Extrapolation Method for Singularly Perturbed Degenerate Parabolic PDEs. International Journal of Applied and Computational Mathematics, 2017, 3, 31-53.	1.6	9
41	Uniformly convergent hybrid numerical scheme for singularly perturbed delay parabolic convectionâ€"diffusion problems on Shishkin mesh. Applied Mathematics and Computation, 2015, 271, 168-186.	2.2	50
42	Adaptive mesh generation for singularly perturbed fourth-order ordinary differential equations. International Journal of Computer Mathematics, 2015, 92, 562-578.	1.8	38
43	Optimal error estimate using mesh equidistribution technique for singularly perturbed system of reactionâ€"diffusion boundary-value problems. Applied Mathematics and Computation, 2014, 249, 265-277.	2.2	57
44	Uniformly convergent numerical method for singularly perturbed parabolic initial-boundary-value problems with equidistributed grids. International Journal of Computer Mathematics, 2014, 91, 553-577.	1.8	12
45	Robust numerical scheme for singularly perturbed convectionâ€"diffusion parabolic initialâ€"boundary-value problems on equidistributed grids. Computer Physics Communications, 2014, 185, 2008-2019.	7.5	24
46	Uniform convergence analysis of hybrid numerical scheme for singularly perturbed problems of mixed type. Numerical Methods for Partial Differential Equations, 2014, 30, 1931-1960.	3.6	2
47	The parameter uniform numerical method for singularly perturbed parabolic reactionâ€"diffusion problems on equidistributed grids. Applied Mathematics Letters, 2013, 26, 1053-1060.	2.7	24
48	A uniformly convergent hybrid scheme for singularly perturbed system of reaction-diffusion Robin type boundary-value problems. Journal of Applied Mathematics and Computing, 2013, 41, 447-471.	2.5	42
49	An Efficient Hybrid Numerical Scheme for Singularly Perturbed Problems of Mixed Parabolic-Elliptic Type. Lecture Notes in Computer Science, 2013, , 411-419.	1.3	2
50	HIGHER-ORDER PARAMETER UNIFORM CONVERGENT SCHEMES FOR ROBIN TYPE REACTION-DIFFUSION PROBLEMS USING ADAPTIVELY GENERATED GRID. International Journal of Computational Methods, 2012, 09, 1250052.	1.3	37
51	Uniformly convergent numerical method for singularly perturbed differentialâ€"difference equation using grid equidistribution. International Journal for Numerical Methods in Biomedical Engineering, 2011, 27, 1427-1445.	2.1	8
52	Optimal error estimate of upwind scheme onÂShishkin-type meshes for singularly perturbed parabolic problems with discontinuous convection coefficients. BIT Numerical Mathematics, 2011, 51, 289-315.	2.0	17
53	Îµ-Uniform error estimate of hybrid numerical scheme for singularly perturbed parabolic problems with nterior layers. Numerical Algorithms, 2011, 58, 103-141.	1.9	31
54	Richardson extrapolation technique for singularly perturbed parabolic convectionâ€"diffusion problems. Computing (Vienna/New York), 2011, 92, 1-32.	4.8	37

#	ARTICLE	IF	CITATIONS
55	Parameter-uniform numerical methods for singularly perturbed mixed boundary value problems using grid equidistribution. Journal of Applied Mathematics and Computing, 2011, 37, 247-265.	2.5	12
56	Numerical solution of nonlinear singularly perturbed problems on nonuniform meshes by using a non-standard algorithm. Journal of Mathematical Chemistry, 2010, 48, 38-54.	1.5	35
57	Parameter-uniform numerical method for global solution and global normalized flux of singularly perturbed boundary value problems using grid equidistribution. Computers and Mathematics With Applications, 2010, 60, 1924-1939.	2.7	21
58	Uniform Convergence Analysis of Finite Difference Scheme for Singularly Perturbed Delay Differential Equation on an Adaptively Generated Grid. Numerical Mathematics, 2010, 3, 1-22.	1.3	24
59	THE PARAMETER-ROBUST NUMERICAL METHOD BASED ON DEFECT-CORRECTION TECHNIQUE FOR SINGULARLY PERTURBED DELAY DIFFERENTIAL EQUATIONS WITH LAYER BEHAVIOR. International Journal of Computational Methods, 2010, 07, 573-594.	1.3	14
60	Parameter-uniform hybrid numerical scheme for time-dependent convection-dominated initial-boundary-value problems. Computing (Vienna/New York), 2009, 84, 209-230.	4.8	34
61	An efficient hybrid numerical scheme for convection-dominated boundary-value problems. International Journal of Computer Mathematics, 2009, 86, 261-273.	1.8	3
62	A robust second-order numerical method for global solution and global normalized flux of singularly perturbed self-adjoint boundary-value problems. International Journal of Computer Mathematics, 2009, 86, 1731-1745.	1.8	2
63	Higher-order time accurate numerical methods for singularly perturbed parabolic partial differential equations. International Journal of Computer Mathematics, 2009, 86, 1204-1214.	1.8	8
64	A Robust computational method for singularly perturbed coupled system of reaction–diffusion boundary-value problems. Applied Mathematics and Computation, 2007, 188, 353-364.	2.2	20
65	Efficient numerical schemes for singularly perturbed parabolic initial-boundary-value problems. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 2020073-2020074.	0.2	1
66	Parallel Implementation of a Spline Based Computational Approach for Singular Perturbation Problems. Lecture Notes in Computer Science, 2006, , 254-262.	1.3	1
67	An efficient numerical method for singular perturbation problems. Journal of Computational and Applied Mathematics, 2006, 192, 132-141.	2.0	51
68	Fitted mesh method for singularly perturbed reaction-convection-diffusion problems with boundary and interior layers. Journal of Applied Mathematics and Computing, 2006, 22, 49-65.	2.5	34
69	Numerical experiments with the Bloch–Floquet approach in homogenization. International Journal for Numerical Methods in Engineering, 2006, 65, 1444-1471.	2.8	3
70	An ε-Uniform Hybrid Scheme for Singularly Perturbed 1-D Reaction-Diffusion Problems. , 2006, , 1079-1087.		1
71	A computational method for self-adjoint singular perturbation problems using quintic spline. Computers and Mathematics With Applications, 2005, 50, 1371-1382.	2.7	25
72	Uniformly Convergent Computational Technique for Singularly Perturbed Self-adjoint Mixed Boundary-Value Problems. Lecture Notes in Computer Science, 2005, , 1104-1107.	1.3	1

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73	A Parallel Boundary Value Technique for Singularly Perturbed Two-Point Boundary Value Problems. Journal of Supercomputing, 2004, 27, 195-206.	3.6	92
74	Arbitrary Lagrangian–Eulerian method for Navier–Stokes equations with moving boundaries. Computer Methods in Applied Mechanics and Engineering, 2004, 193, 4819-4836.	6.6	108
75	Numerical methods for elliptic partial differential equations with rapidly oscillating coefficients. Computer Methods in Applied Mechanics and Engineering, 2003, 192, 47-76.	6.6	13
76	A numerical algorithm for singular perturbation problems exhibiting weak boundary layers. Computers and Mathematics With Applications, 2003, 45, 469-479.	2.7	42
77	Parameter uniform numerical method for singularly perturbed turning point problems exhibiting boundary layers. Journal of Computational and Applied Mathematics, 2003, 158, 121-134.	2.0	60
78	"Shooting method" for the solution of singularly perturbed two-point boundary-value problems having less severe boundary layer. Applied Mathematics and Computation, 2002, 133, 623-641.	2.2	21
79	An asymptotic-numerical method for singularly perturbed Robin problems-I. Applied Mathematics and Computation, 2002, 126, 97-107.	2.2	6
80	"booster method" for singularly perturbed robin problems-II. International Journal of Computer Mathematics, 2001, 78, 141-152.	1.8	0
81	An Efficient Parallel Algorithm for the Numerical Solution of Schrödinger Equation. Lecture Notes in Computer Science, 2001, , 262-270.	1.3	1
82	Booster Method for Singularly-Perturbed One-Dimensional Reaction-Diffusion Neumann Problems. Journal of Optimization Theory and Applications, 2000, 104, 175-194.	1.5	3
83	"Booster method" for singularly perturbed robin problems i. International Journal of Computer Mathematics, 2000, 76, 191-202.	1.8	3
84	Improvement of numerical solution of selfadjoint singular perturbation problems by incorporation of asymptotic approximations. Applied Mathematics and Computation, 1999, 98, 119-137.	2.2	15
85	A "Booster method" for singular perturbation problems arising in chemical reactor theory. Applied Mathematics and Computation, 1999, 100, 27-48.	2.2	19
86	'Shooting method' for singularly perturbed one-dimensional reaction-diffusion neumann problems. International Journal of Computer Mathematics, 1999, 72, 383-393.	1.8	6
87	Initial-Value Technique for Singularly-Perturbed Turning-Point Problems Exhibiting Twin Boundary Layers. Journal of Optimization Theory and Applications, 1998, 99, 37-52.	1.5	28
88	Booster Method for Singularly-Perturbed One-Dimensional Convection-Diffusion Neumann Problems. Journal of Optimization Theory and Applications, 1998, 99, 53-72.	1.5	9
89	Initial-Value Technique for Singularly Perturbed Boundary-Value Problems for Second-Order Ordinary Differential Equations Arising in Chemical Reactor Theory. Journal of Optimization Theory and Applications, 1998, 97, 455-470.	1.5	23
90	A computational method for solving singularly perturbed turning point problems exhibiting twin boundary layers. Applied Mathematics and Computation, 1998, 93, 259-275.	2.2	39

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91	â€˜Shooting method' for singular perturbation problems arising in chemical reactor theory. International Journal of Computer Mathematics, 1998, 70, 251-262.	1.8	5
92	Quintic Spline Based Computational Scheme for Singularly Perturbed Convection-Diffusion Problems. , 0, , .		1
93	Numerical Analysis of a Fully-Discrete Stabilized FEM for System of Singularly Perturbed Parabolic IBVPs. International Journal of Computer Mathematics, 0, , 1-31.	1.8	0
94	Superconvergence error estimates of discontinuous Galerkin time stepping for singularly perturbed parabolic problems. Numerical Algorithms, 0, , 1.	1.9	1
95	Parameterâ€‘uniform numerical method for singularly perturbed 2â€‘D parabolic convectionâ€“diffusion problem with interior layers. Mathematical Methods in the Applied Sciences, 0, , .	2.3	1