

Natesan Srinivasan

List of Publications by Year in descending order

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95
papers

1,441
citations

304743

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395702

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docs citations

97
times ranked

408
citing authors

#	ARTICLE	IF	CITATIONS
1	Arbitrary Lagrangian-Eulerian method for Navier-Stokes equations with moving boundaries. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2004, 193, 4819-4836.	6.6	108
2	A Parallel Boundary Value Technique for Singularly Perturbed Two-Point Boundary Value Problems. <i>Journal of Supercomputing</i> , 2004, 27, 195-206.	3.6	92
3	Parameter uniform numerical method for singularly perturbed turning point problems exhibiting boundary layers. <i>Journal of Computational and Applied Mathematics</i> , 2003, 158, 121-134.	2.0	60
4	Optimal error estimate using mesh equidistribution technique for singularly perturbed system of reaction-diffusion boundary-value problems. <i>Applied Mathematics and Computation</i> , 2014, 249, 265-277.	2.2	57
5	An efficient numerical method for singular perturbation problems. <i>Journal of Computational and Applied Mathematics</i> , 2006, 192, 132-141.	2.0	51
6	Uniformly convergent hybrid numerical scheme for singularly perturbed delay parabolic convection-diffusion problems on Shishkin mesh. <i>Applied Mathematics and Computation</i> , 2015, 271, 168-186.	2.2	50
7	$\hat{\mu}$ -Uniformly convergent numerical scheme for singularly perturbed delay parabolic partial differential equations. <i>International Journal of Computer Mathematics</i> , 2017, 94, 902-921.	1.8	44
8	A numerical algorithm for singular perturbation problems exhibiting weak boundary layers. <i>Computers and Mathematics With Applications</i> , 2003, 45, 469-479.	2.7	42
9	A uniformly convergent hybrid scheme for singularly perturbed system of reaction-diffusion Robin type boundary-value problems. <i>Journal of Applied Mathematics and Computing</i> , 2013, 41, 447-471.	2.5	42
10	A computational method for solving singularly perturbed turning point problems exhibiting twin boundary layers. <i>Applied Mathematics and Computation</i> , 1998, 93, 259-275.	2.2	39
11	Adaptive mesh generation for singularly perturbed fourth-order ordinary differential equations. <i>International Journal of Computer Mathematics</i> , 2015, 92, 562-578.	1.8	38
12	Richardson extrapolation technique for singularly perturbed parabolic convection-diffusion problems. <i>Computing (Vienna/New York)</i> , 2011, 92, 1-32.	4.8	37
13	HIGHER-ORDER PARAMETER UNIFORM CONVERGENT SCHEMES FOR ROBIN TYPE REACTION-DIFFUSION PROBLEMS USING ADAPTIVELY GENERATED GRID. <i>International Journal of Computational Methods</i> , 2012, 09, 1250052.	1.3	37
14	Numerical solution of nonlinear singularly perturbed problems on nonuniform meshes by using a non-standard algorithm. <i>Journal of Mathematical Chemistry</i> , 2010, 48, 38-54.	1.5	35
15	Fitted mesh method for singularly perturbed reaction-convection-diffusion problems with boundary and interior layers. <i>Journal of Applied Mathematics and Computing</i> , 2006, 22, 49-65.	2.5	34
16	Parameter-uniform hybrid numerical scheme for time-dependent convection-dominated initial-boundary-value problems. <i>Computing (Vienna/New York)</i> , 2009, 84, 209-230.	4.8	34
17	$\hat{\mu}$ -Uniform error estimate of hybrid numerical scheme for singularly perturbed parabolic problems with interior layers. <i>Numerical Algorithms</i> , 2011, 58, 103-141.	1.9	31
18	Initial-Value Technique for Singularly-Perturbed Turning-Point Problems Exhibiting Twin Boundary Layers. <i>Journal of Optimization Theory and Applications</i> , 1998, 99, 37-52.	1.5	28

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19	Second-order uniformly convergent numerical method for singularly perturbed delay parabolic partial differential equations. <i>International Journal of Computer Mathematics</i> , 2018, 95, 490-510.	1.8	26
20	A computational method for self-adjoint singular perturbation problems using quintic spline. <i>Computers and Mathematics With Applications</i> , 2005, 50, 1371-1382.	2.7	25
21	An efficient robust numerical method for singularly perturbed Burgers's equation. <i>Applied Mathematics and Computation</i> , 2019, 346, 385-394.	2.2	25
22	Uniform Convergence Analysis of Finite Difference Scheme for Singularly Perturbed Delay Differential Equation on an Adaptively Generated Grid. <i>Numerical Mathematics</i> , 2010, 3, 1-22.	1.3	24
23	The parameter uniform numerical method for singularly perturbed parabolic reaction-diffusion problems on equidistributed grids. <i>Applied Mathematics Letters</i> , 2013, 26, 1053-1060.	2.7	24
24	Robust numerical scheme for singularly perturbed convection-diffusion parabolic initial-boundary-value problems on equidistributed grids. <i>Computer Physics Communications</i> , 2014, 185, 2008-2019.	7.5	24
25	Initial-Value Technique for Singularly Perturbed Boundary-Value Problems for Second-Order Ordinary Differential Equations Arising in Chemical Reactor Theory. <i>Journal of Optimization Theory and Applications</i> , 1998, 97, 455-470.	1.5	23
26	Shooting method for the solution of singularly perturbed two-point boundary-value problems having less severe boundary layer. <i>Applied Mathematics and Computation</i> , 2002, 133, 623-641.	2.2	21
27	Parameter-uniform numerical method for global solution and global normalized flux of singularly perturbed boundary value problems using grid equidistribution. <i>Computers and Mathematics With Applications</i> , 2010, 60, 1924-1939.	2.7	21
28	A Robust computational method for singularly perturbed coupled system of reaction-diffusion boundary-value problems. <i>Applied Mathematics and Computation</i> , 2007, 188, 353-364.	2.2	20
29	A Booster method for singular perturbation problems arising in chemical reactor theory. <i>Applied Mathematics and Computation</i> , 1999, 100, 27-48.	2.2	19
30	Optimal error estimate of upwind scheme on Shishkin-type meshes for singularly perturbed parabolic problems with discontinuous convection coefficients. <i>BIT Numerical Mathematics</i> , 2011, 51, 289-315.	2.0	17
31	Improvement of numerical solution of selfadjoint singular perturbation problems by incorporation of asymptotic approximations. <i>Applied Mathematics and Computation</i> , 1999, 98, 119-137.	2.2	15
32	THE PARAMETER-ROBUST NUMERICAL METHOD BASED ON DEFECT-CORRECTION TECHNIQUE FOR SINGULARLY PERTURBED DELAY DIFFERENTIAL EQUATIONS WITH LAYER BEHAVIOR. <i>International Journal of Computational Methods</i> , 2010, 07, 573-594.	1.3	14
33	An μ -uniform hybrid numerical scheme for a singularly perturbed degenerate parabolic convection-diffusion problem. <i>International Journal of Computer Mathematics</i> , 2019, 96, 1313-1334.	1.8	14
34	Study of the NIPG method for two-parameter singular perturbation problems on several layer adapted grids. <i>Journal of Applied Mathematics and Computing</i> , 2020, 63, 683-705.	2.5	14
35	Numerical methods for elliptic partial differential equations with rapidly oscillating coefficients. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2003, 192, 47-76.	6.6	13
36	Parameter-uniform numerical methods for singularly perturbed mixed boundary value problems using grid equidistribution. <i>Journal of Applied Mathematics and Computing</i> , 2011, 37, 247-265.	2.5	12

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37	Uniformly convergent numerical method for singularly perturbed parabolic initial-boundary-value problems with equidistributed grids. <i>International Journal of Computer Mathematics</i> , 2014, 91, 553-577.	1.8	12
38	Richardson extrapolation technique for singularly perturbed system of parabolic partial differential equations with exponential boundary layers. <i>Applied Mathematics and Computation</i> , 2018, 333, 254-275.	2.2	12
39	Alternating direction numerical scheme for singularly perturbed 2D degenerate parabolic convection-diffusion problems. <i>Applied Mathematics and Computation</i> , 2017, 313, 453-473.	2.2	11
40	Higher-order convergence with fractional-step method for singularly perturbed 2D parabolic convection-diffusion problems on Shishkin mesh. <i>Computers and Mathematics With Applications</i> , 2018, 75, 2387-2403.	2.7	11
41	Superconvergence of discontinuous Galerkin method with interior penalties for singularly perturbed two-point boundary-value problems. <i>Calcolo</i> , 2018, 55, 1.	1.1	10
42	Shape preserving α -fractal rational cubic splines. <i>Calcolo</i> , 2020, 57, 1.	1.1	10
43	Booster Method for Singularly-Perturbed One-Dimensional Convection-Diffusion Neumann Problems. <i>Journal of Optimization Theory and Applications</i> , 1998, 99, 53-72.	1.5	9
44	Second-Order Uniformly Convergent Richardson Extrapolation Method for Singularly Perturbed Degenerate Parabolic PDEs. <i>International Journal of Applied and Computational Mathematics</i> , 2017, 3, 31-53.	1.6	9
45	Parameter-uniform fractional step hybrid numerical scheme for 2D singularly perturbed parabolic convection-diffusion problems. <i>Journal of Applied Mathematics and Computing</i> , 2019, 60, 51-86.	2.5	9
46	A parameter-uniform hybrid finite difference scheme for singularly perturbed system of parabolic convection-diffusion problems. <i>International Journal of Computer Mathematics</i> , 2020, 97, 875-905.	1.8	9
47	SDFEM for singularly perturbed boundary-value problems with two parameters. <i>Journal of Applied Mathematics and Computing</i> , 2020, 64, 591-614.	2.5	9
48	Higher-order time accurate numerical methods for singularly perturbed parabolic partial differential equations. <i>International Journal of Computer Mathematics</i> , 2009, 86, 1204-1214.	1.8	8
49	Uniformly convergent numerical method for singularly perturbed differential-difference equation using grid equidistribution. <i>International Journal for Numerical Methods in Biomedical Engineering</i> , 2011, 27, 1427-1445.	2.1	8
50	Parameter-uniform numerical method for singularly perturbed 2D delay parabolic convection-diffusion problems on Shishkin mesh. <i>Journal of Applied Mathematics and Computing</i> , 2019, 59, 207-225.	2.5	8
51	"Shooting method" for singularly perturbed one-dimensional reaction-diffusion neumann problems. <i>International Journal of Computer Mathematics</i> , 1999, 72, 383-393.	1.8	6
52	An asymptotic-numerical method for singularly perturbed Robin problems-I. <i>Applied Mathematics and Computation</i> , 2002, 126, 97-107.	2.2	6
53	Numerical Analysis of Singularly Perturbed System of Parabolic Convection-Diffusion Problem with Regular Boundary Layers. <i>Differential Equations and Dynamical Systems</i> , 2022, 30, 695-717.	1.0	6
54	A Uniformly Convergent Numerical Scheme for a Coupled System of Singularly Perturbed Reaction-Diffusion Equations. <i>Numerical Functional Analysis and Optimization</i> , 2020, 41, 1172-1189.	1.4	6

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55	'Shooting method' for singular perturbation problems arising in chemical reactor theory. International Journal of Computer Mathematics, 1998, 70, 251-262.	1.8	5
56	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
57	A novel two-step streamline-diffusion FEM for singularly perturbed 2D parabolic PDEs. Applied Numerical Mathematics, 2022, 172, 259-278.	2.1	4
58	Assamese Character Recognition Using Convolutional Neural Networks. Algorithms for Intelligent Systems, 2022, , 851-859.	0.6	4
59	Booster Method for Singularly-Perturbed One-Dimensional Reaction-Diffusion Neumann Problems. Journal of Optimization Theory and Applications, 2000, 104, 175-194.	1.5	3
60	'Booster method' for singularly perturbed robin problems i. International Journal of Computer Mathematics, 2000, 76, 191-202.	1.8	3
61	Numerical experiments with the Bloch-Floquet approach in homogenization. International Journal for Numerical Methods in Engineering, 2006, 65, 1444-1471.	2.8	3
62	An efficient hybrid numerical scheme for convection-dominated boundary-value problems. International Journal of Computer Mathematics, 2009, 86, 261-273.	1.8	3
63	Constrained and convex interpolation through rational cubic fractal interpolation surface. Computational and Applied Mathematics, 2018, 37, 6308-6331.	1.3	3
64	Numerical solution of 2D singularly perturbed reaction-diffusion system with multiple scales. Computers and Mathematics With Applications, 2020, 80, 36-53.	2.7	3
65	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
66	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
67	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
68	Fractal Quintic Spline Solutions for Fourth-Order Boundary-Value Problems. International Journal of Applied and Computational Mathematics, 2019, 5, 1.	1.6	2
69	SDFEM for singularly perturbed parabolic initial-boundary-value problems on equidistributed grids. Calcolo, 2020, 57, 1.	1.1	2
70	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
71	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
72	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

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73	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
74	An Efficient Parallel Algorithm for the Numerical Solution of Schrödinger Equation. Lecture Notes in Computer Science, 2001, , 262-270.	1.3	1
75	Quintic Spline Based Computational Scheme for Singularly Perturbed Convection-Diffusion Problems. , 0, , .		1
76	Uniformly Convergent Computational Technique for Singularly Perturbed Self-adjoint Mixed Boundary-Value Problems. Lecture Notes in Computer Science, 2005, , 1104-1107.	1.3	1
77	Parallel Implementation of a Spline Based Computational Approach for Singular Perturbation Problems. Lecture Notes in Computer Science, 2006, , 254-262.	1.3	1
78	An μ -Uniform Hybrid Scheme for Singularly Perturbed 1-D Reaction-Diffusion Problems. , 2006, , 1079-1087.		1
79	Efficient numerical schemes for singularly perturbed parabolic initial-boundary-value problems. Proceedings in Applied Mathematics and Mechanics, 2007, 7, 2020073-2020074.	0.2	1
80	A finite element superconvergence approximations for singularly perturbed system of convection-diffusion problems. AIP Conference Proceedings, 2018, , .	0.4	1
81	Fractal Cubic Spline Methods for Singular Boundary-Value Problems. International Journal of Applied and Computational Mathematics, 2020, 6, 1.	1.6	1
82	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
83	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
84	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
85	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
86	Superconvergence error estimates of discontinuous Galerkin time stepping for singularly perturbed parabolic problems. Numerical Algorithms, 0, , 1.	1.9	1
87	Parameter-uniform numerical method for singularly perturbed 2D parabolic convection-diffusion problem with interior layers. Mathematical Methods in the Applied Sciences, 0, , .	2.3	1
88	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
89	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
90	Boosting method for singularly perturbed robin problems-II. International Journal of Computer Mathematics, 2001, 78, 141-152.	1.8	0

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91	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
92	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
93	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
94	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
95	Experimenting with Assamese Handwritten Character Recognition. Lecture Notes in Computer Science, 2022, , 219-229.	1.3	0