Vikas Gupta

List of Publications by Year
in descending order

18 papers	**428** citations	840119 **11** h-index	887659 **17** g-index
18 all docs	**18** docs citations	**18** times ranked	**140** citing authors

#	Article	IF	Citations
1	A brief survey on numerical methods for solving singularly perturbed problems. Applied Mathematics and Computation, 2010, 217, 3641-3716.	1.4	124
2	A uniformly convergent B-spline collocation method on a nonuniform mesh for singularly perturbed one-dimensional time-dependent linear convection–diffusion problem. Journal of Computational and Applied Mathematics, 2008, 220, 271-289.	1.1	50
3	A parameter-uniform higher order finite difference scheme for singularly perturbed time-dependent parabolic problem with two small parameters. International Journal of Computer Mathematics, 2019, 96, 474-499.	1.0	40
4	Higher order numerical approximation for time dependent singularly perturbed differential–difference convection–diffusion equations. Numerical Methods for Partial Differential Equations, 2018, 34, 357-380.	2.0	31
5	Collocation method using artificial viscosity for solving stiff singularly perturbed turning point problem having twin boundary layers. Computers and Mathematics With Applications, 2011, 61, 1595-1607.	1.4	25
6	Numerical solution of singularly perturbed convection–diffusion problem using parameter uniform B-spline collocation method. Journal of Mathematical Analysis and Applications, 2009, 355, 439-452.	0.5	24
7	A layer adaptive B-spline collocation method for singularly perturbed one-dimensional parabolic problem with a boundary turning point. Numerical Methods for Partial Differential Equations, 2011, 27, 1143-1164.	2.0	24
8	A singular perturbation approach to solve Burgers–Huxley equation via monotone finite difference scheme on layer-adaptive mesh. Communications in Nonlinear Science and Numerical Simulation, 2011, 16, 1825-1844.	1.7	23
9	A parameter uniform B-spline collocation method for solving singularly perturbed turning point problem having twin boundary layers. International Journal of Computer Mathematics, 2010, 87, 3218-3235.	1.0	18
10	Second-order parameter-uniform finite difference scheme for singularly perturbed parabolic problem with a boundary turning point. Journal of Difference Equations and Applications, 2021, 27, 223-240.	0.7	14
11	An application of variational iteration method for solving fuzzy time-fractional diffusion equations. Neural Computing and Applications, 2021, 33, 17659-17668.	3.2	13
12	Qualitative analysis and numerical solution of burgers' equation via B-spline collocation with implicit euler method on piecewise uniform mesh. Journal of Numerical Mathematics, 2016, 24, .	1.8	10
13	A Mesh Refinement Algorithm for Singularly Perturbed Boundary and Interior Layer Problems. International Journal of Computational Methods, 2020, 17, 1950024.	0.8	9
14	Robust higher order finite difference scheme for singularly perturbed turning point problem with two outflow boundary layers. Computational and Applied Mathematics, 2021, 40, 1.	1.0	9
15	Local maximum principle satisfying high–order non–oscillatory schemes. International Journal for Numerical Methods in Fluids, 2016, 81, 689-715.	0.9	6
16	Higher order robust numerical computation for singularly perturbed problem involving discontinuous convective and source term. Mathematical Methods in the Applied Sciences, 2022, 45, 4876-4898.	1.2	4
17	An approach based on fractional-order Lagrange polynomials for the numerical approximation of fractional order non-linear Volterra-Fredholm integro-differential equations. Journal of Applied Mathematics and Computing, 2023, 69, 251-272.	1.2	4
18	A mesh adaptation algorithm using new monitor and estimator function for discontinuous and layered solution. Numerical Algebra, Control and Optimization, 2021, .	1.0	0