Carmelo Clavero

List of Publications by Year
in descending order

44 papers	799 citations	516710 16 h-index	526287 27 g-index
45 all docs	45 docs citations	45 times ranked	228 citing authors

#	Article	IF	Citations
1	A uniformly convergent scheme on a nonuniform mesh for convectionâ€“diffusion parabolic problems. Journal of Computational and Applied Mathematics, 2003, 154, 415-429.	2.0	99
2	A parameter robust numerical method for a two dimensional reaction-diffusion problem. Mathematics of Computation, 2005, 74, 1743-1759.	2.1	70
3	High-order numerical methods for one-dimensional parabolic singularly perturbed problems with regular layers. Numerical Methods for Partial Differential Equations, 2005, 21, 149-169.	3.6	64
4	An alternating direction scheme on a nonuniform mesh for reaction-diffusion parabolic problems. IMA Journal of Numerical Analysis, 2000, 20, 263-280.	2.9	60
5	A fractional step method on a special mesh for the resolution of multidimensional evolutionary convection-diffusion problems. Applied Numerical Mathematics, 1998, 27, 211-231.	2.1	50
6	A uniformly convergent alternating direction HODIE finite difference scheme for 2D time-dependent convection-diffusion problems. IMA Journal of Numerical Analysis, 2005, 26, 155-172.	2.9	36
7	Title is missing!. Numerical Algorithms, 1999, 22, 73-97.	1.9	34
8	A high order uniformly convergent alternating direction scheme for time dependent reactionâ€“diffusion singularly perturbed problems. Numerische Mathematik, 2007, 107, 1-25.	1.9	31
9	High order methods for elliptic and time dependent reactionâ€“diffusion singularly perturbed problems. Applied Mathematics and Computation, 2005, 168, 1109-1127.	2.2	30
10	A high order HODIE finite difference scheme for 1D parabolic singularly perturbed reactionâ€“diffusion problems. Applied Mathematics and Computation, 2012, 218, 5067-5080.	2.2	30
11	On the uniform convergence of a finite difference scheme for time dependent singularly perturbed reaction-diffusion problems. Applied Mathematics and Computation, 2010, 216, 1478-1488.	2.2	28
12	Another uniform convergence analysis technique of some numerical methods for parabolic singularly perturbed problems. Computers and Mathematics With Applications, 2015, 70, 222-235.	2.7	24
13	A simpler analysis of a hybrid numerical method for time-dependent convectionâ€“diffusion problems. Journal of Computational and Applied Mathematics, 2011, 235, 5240-5248.	2.0	23
14	An almost third order finite difference scheme for singularly perturbed reactionâ€“diffusion systems. Journal of Computational and Applied Mathematics, 2010, 234, 2501-2515.	2.0	18
15	An efficient numerical scheme for 1D parabolic singularly perturbed problems with an interior and boundary layers. Journal of Computational and Applied Mathematics, 2017, 318, 634-645.	2.0	18
16	A higher order uniformly convergent method with Richardson extrapolation in time for singularly perturbed reactionâ€“diffusion parabolic problems. Journal of Computational and Applied Mathematics, 2013, 252, 75-85.	2.0	17
17	Uniformly convergent additive finite difference schemes for singularly perturbed parabolic reactionâ€“diffusion systems. Computers and Mathematics With Applications, 2014, 67, 655-670.	2.7	16
18	Some numerical experiments with multigrid methods on Shishkin meshes. Journal of Computational and Applied Mathematics, 2002, 138, 21-35.	2.0	15

#	Article	IF	Citations
19	A compact finite difference scheme for 2D reactionâ€“diffusion singularly perturbed problems. Journal of Computational and Applied Mathematics, 2006, 192, 152-167.	2.0	12
20	A first approach in solving initial-value problems in ODEs by elliptic fitting methods. Journal of Computational and Applied Mathematics, 2017, 318, 599-603.	2.0	12
21	An efficient numerical method for singularly perturbed time dependent parabolic 2D convectionâ€“diffusion systems. Journal of Computational and Applied Mathematics, 2019, 354, 431-444.	2.0	11
22	High Order Îµ-Uniform Methods for Singularly Perturbed Reaction-Diffusion Problems. Lecture Notes in Computer Science, 2001, , 350-358.	1.3	11
23	Uniformly convergent finite difference methods for singularly perturbed problems with turning points. Numerical Algorithms, 1993, 4, 339-359.	1.9	10
24	SCHEMES CONVERGENT Î•-UNIFORMLY FOR PARABOLIC SINGULARLY PERTURBED PROBLEMS WITH A DEGENERATING CONVECTIVE TERM AND A DISCONTINUOUS SOURCE. Mathematical Modelling and Analysis, 2015, 20, 641-657.	1.5	10
25	Solving efficiently one dimensional parabolic singularly perturbed reactionâ€“diffusion systems: A splitting by components. Journal of Computational and Applied Mathematics, 2018, 344, 1-14.	2.0	10
26	A fractional step method for 2D parabolic convection-diffusion singularly perturbed problems: uniform convergence and order reduction. Numerical Algorithms, 2017, 75, 809-826.	1.9	9
27	Uniformly convergent additive schemes for 2d singularly perturbed parabolic systems of reaction-diffusion type. Numerical Algorithms, 2019, 80, 1097-1120.	1.9	7
28	An efficient and uniformly convergent scheme for one-dimensional parabolic singularly perturbed semilinear systems of reaction-diffusion type. Numerical Algorithms, 2020, 85, 1005-1027.	1.9	7
29	An improved uniformly convergent scheme in space for 1D parabolic reactionâ€“diffusion systems. Applied Mathematics and Computation, 2014, 243, 57-73.	2.2	6
30	Uniform convergence of arbitrary order on nonuniform meshes for a singularly perturbed boundary value problem. Journal of Computational and Applied Mathematics, 1995, 59, 155-171.	2.0	5
31	Numerical Experiments for a Singularly Perturbed Parabolic Problem with Degenerating Convective Term and Discontinuous Source. Computational Methods in Applied Mathematics, 2012, 12, 139-152.	0.8	4
32	Numerical approximation of 2D time dependent singularly perturbed convectionâ€“diffusion problems with attractive or repulsive turning points. Applied Mathematics and Computation, 2018, 317, 223-233.	2.2	4
33	High Order Schemes for Reaction-Diffusion Singularly Perturbed Systems. Lecture Notes in Computational Science and Engineering, 2009, , 107-115.	0.3	4
34	Numerical experiments for advectionâ€“diffusion problems in a channel with a 180Â° bend. Applied Mathematics and Computation, 2001, 118, 223-246.	2.2	3
35	Uniform convergence and order reduction of the fractional implicit Euler method to solve singularly perturbed 2D reaction-diffusion problems. Applied Mathematics and Computation, 2016, 287-288, 12-27.	2.2	3
36	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

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37	Higher order global solution and normalized flux for singularly perturbed reactionâ€“diffusion problems. Applied Mathematics and Computation, 2010, 216, 2058-2068.	2.2	2
38	An Îµ-Uniform Hybrid Scheme for Singularly Perturbed 1-D Reaction-Diffusion Problems. , 2006, , 1079-1087.		1
39	Uniformly Convergent Finite Difference Schemes for Singularly Perturbed 1D Parabolic Reactionâ€“Diffusion Problems. Lecture Notes in Computational Science and Engineering, 2011, , 75-83.	0.3	1
40	Spatial Semidiscretizations and Time Integration of 2D Parabolic Singularly Perturbed Problems. Lecture Notes in Computational Science and Engineering, 2015, , 75-85.	0.3	1
41	Order Reduction and Uniform Convergence of an Alternating Direction Method for Solving 2D Time Dependent Convection-Diffusion Problems. Lecture Notes in Computational Science and Engineering, 2017, , 49-61.	0.3	1
42	High Order Uniformly Convergent Fractional Step RK Methods and HODIE Finite Difference Schemes for 2D Evolutionary Convection-Diffusion Problems. Journal of Computational Methods in Sciences and Engineering, 2003, 3, 403-413.	0.2	0
43	A uniformly convergent scheme to solve twoâ€dimensional parabolic singularly perturbed systems of reactionâ€diffusion type with multiple diffusion parameters. Computational and Mathematical Methods, 2021, 3, e1093.	0.8	0
44	A multi-splitting method to solve 2D parabolic reactionâ€“diffusion singularly perturbed systems. Journal of Computational and Applied Mathematics, 2023, 417, 114569.	2.0	0