

Списък на публикациите/List of publications

Даниела Павлова Василева/Daniela Pavlova Vasileva

Институт по Математика и Информатика, БАН/Institute of Mathematics and Informatics, BAS

1. A. Andreev, D. Vasileva, On numerical determination on the generalized polynomial of the best Hausdorff approximation. *Доклади на Международната конференция по числени методи и приложения*, София, 1988г. Изд. БАН, София, 1989, 13-17 (*Proc. Int. Conf. Num. Meth. Appl., Sofia, Bulgaria, 1988* (eds. Bl. Sendov, R. Lazarov, I. Dimov), Publ. House BAS, 1989, 13-17).
2. Д. Василева, Численно исследование неограниченных решений одного класса квазилинейных параболических уравнений. *Сборник доклади и научни съобщения на XVII Нац. лятна школа с международно участие "Приложение на математиката в техниката"*, София, 1992, 197-200 (D. Vasileva, Numerical investigation of the unbounded solutions of a class of quasilinear parabolic equations. *Proc. XVII Summer School, Varna, Bulgaria, 1991*, Sofia, 1992, 197-200 (in Russian)).
3. D.P. Vasileva, Numerical analysis of the asymptotic behaviour of solutions of a boundary problem for a nonlinear parabolic equation. *Communications JINR*, E11-93-369, 1993, Dubna.
4. S.N. Dimova, D.P. Vasileva, On the numerical realization of blow-up spiral wave solutions of a nonlinear heat-transfer equation. *Докл. БАН (Comptes rendus de l'Academie bulgare des Sciences)*, **46** (1993), 31-34.
5. S.N. Dimova, D.P. Vasileva, Numerical realization of blow-up spiral wave solutions of a nonlinear heat-transfer equation. *Int. J. Num. Meth. Heat&Fluid Flow*, **4** (1994), 497-511.
6. S.N. Dimova, M.S. Kaschiev, M.G. Koleva, D.P. Vasileva, Numerical analysis of nonradially-symmetric structures arising in nonlinear reaction-diffusion processes. *Международное совещание по программированию и математическим методам решения физических задач, Дубна, 1993г. Proc. Int. Conf. "Programming and Mathematical Techniques in Physics"* (eds. Yu.Yu. Lobanov, E.P. Zhidkov), World Scientific, 1994, 251-256.
7. С.Н. Димова, М.С. Касчиев, М.Г. Колева, Д.П. Василева, Численно исследование радиально-несимметричных структур в нелинейной теплопроводной среде. *Докл. РАН*, **338** (1994), 461-464 (English translation: S.N. Dimova, M.S. Kaschiev, M.G. Koleva, D.P. Vasileva, Numerical analysis of radially nonsymmetric structures in nonlinear heat transfer medium. *Phys.-Dokl.*, **39** (1994), 673-676).
8. S.N. Dimova, M.S. Kaschiev, M.G. Koleva, D.P. Vasileva, Numerical analysis of the blowup regimes of combustion of two-component nonlinear heat-conducting medium. *ЖБМ и МФ*, **35** (1995), 380-399 (or *Comput. Math. Math. Phys.*, **35** (1995), 303-319).
9. S.N. Dimova, D.P. Vasileva, Lumped mass finite element method with interpolation of the nonlinear coefficients for a quasilinear heat transfer equation. *Numerical Heat Transfer, Part B: Fundamentals*, **28** (1995), 199-215.
10. I.B. Bazhlekov, M.G. Koleva, D.P. Vasileva, Numerical algorithm for simulation of coupled heat-mass transfer and chemical reaction in two-phase steady flow. *Proc. First Int. Workshop Numerical Analysis and Its Applications, Rousse, Bulgaria, 1996* (eds. L. Vulkov, J. Wasniewski, Pl. Yalamov), *Lecture Notes in Computer Science*, **1196** (1996), 38-45.

11. D. Drikakis, O.P. Iliev, D.P. Vassileva, A multigrid algorithm for artificial compressibility formulation of 3D Navier-Stokes equations. *Proc. First Workshop Large-Scale Scientific Computations of Engineering and Environmental Problems, Varna, Bulgaria, 1997* (eds. M. Griebel, O.P. Iliev, S.D. Margenov and P.S. Vassilevski), *Notes in Numerical Fluid Dynamics*, **62**, 260-268.
12. S.N. Dimova, M.S. Kaschiev, M.G. Koleva, D.P. Vasileva, Numerical analysis of nonradially symmetric and spiral waves in highly intensive temperature fields. *J. Comp. Appl. Math.*, **97** (1998), 81-97.
13. D. Drikakis, O.P. Iliev, D.P. Vassileva, A nonlinear multigrid method for the incompressible Navier-Stokes equations. *J. Comput. Phys.*, **146** (1998), 310-321.
14. O.P. Iliev, D.P. Vassileva, On the adaptive smoothing as an approach for accelerating flow computations. *Докл. БАН (Comptes rendus de l'Academie bulgare des Sciences)*, **53**, No.3 (2000), 17-20.
15. D. Drikakis, O.P. Iliev, D.P. Vassileva, An adaptive-smoothing multigrid method for the Navier-Stokes equations. *Multigrid Methods VI, Proc. Sixth European Multigrid Conf., Gent, Belgium, 1999* (eds. E. Dick, K. Rienslagh, J. Vierendeels), *Lecture Notes in Comp. Sci. and Eng.*, **14** (2000), 94-100.
16. D. Drikakis, O.P. Iliev, D.P. Vassileva, Acceleration of multigrid flow computations through a dynamic adaptation of the smoothing procedure. *J. Comput. Phys.*, **165** (2000), 566-591.
17. D. Drikakis, O. Iliev, D. Vassileva, On multigrid methods for the compressible Navier-Stokes equations. *Large-Scale Scientific Computing, Third Int. Conf. Sozopol, Bulgaria, 2001, Revised Papers* (eds. S. Margenov, J. Wasniewski, P. Yalamov), *Lecture Notes in Comp. Sci.*, **2179** (2001), 344-352.
18. D. Drikakis, F.A. Fooker, D. Vassileva, Computation of compressible cavity flows using high resolution methods. *Proc. CEAS Aerospace Aerodynamics Research Conference, June 2002, Cambridge, UK* (on CD-ROM).
19. W. Doerfler, O. Iliev, D. Stoyanov, D. Vassileva, On a Multigrid Adaptive Refinement Solver for Saturated Non-Newtonian Flow in Porous Media. *Numerical Methods and Applications: 5th Int. Conf., NMA 2002, Borovets, Bulgaria, 2002, Revised Papers* (eds. I. Dimov, I. Lirkov, S. Margenov, Z. Zlatev), *Lecture Notes in Comp. Sci.*, **2542** (2003), 174-181. Extended version in *Report of Fraunhofer Institute for Industrial Mathematics, Kaiserslautern, Germany*, **52** (2003).
20. O. Iliev, V. Laptev, D. Vassileva, Algorithms and software for computer simulation of flow through oil filters. *Proc. FILTECH Europa (Int.Conf. and Exhibition Filtration and Separation Technology, 2003, Düsseldorf)*, Vol.I, 327-334.
21. D. Vasileva, A. Kuut, P.W. Hemker, An adaptive multigrid strategy for convection-diffusion problems. *Large-Scale Scientific Computing, 5th Int. Conf., Sozopol, Bulgaria, 2005, Revised Papers* (eds. I. Lirkov, S. Margenov, J. Wasniewski), *Lecture Notes in Comp. Sci.*, **3743** (2006), 138-145.
22. O. Iliev, D. Vasileva, On a local refinement solver for coupled flow in plain and porous media, *Numerical Methods and Applications, 6th Int. Conf., NMA 2006, Borovets, Bulgaria*,

- 2006, *Revised Papers* (eds. T. Boyanov, S. Dimova, K. Georgiev, G. Nikolov), *Lecture Notes in Comp. Sci.*, **4310** (2007), 590-598.
23. D. Vasileva, On a local semirefinement multigrid algorithm for convection-diffusion problems. *Proc. BGSIAM'07 (2nd Annual Meeting of the Bulg. section of SIAM, 2007, Sofia)*, *Extended abstracts* (2008), 60-63.
 24. D. Vasileva, On an adaptive semirefinement multigrid algorithm for convection-diffusion problems. *Numerical Analysis and Its Applications, 4th International Conference, NAA 2008, Lozenetz, Bulgaria, 2008, Revised Selected Papers* (eds. S. Margenov, L. Vulkov, J. Wasniewski), *Lecture Notes in Comp. Sci.*, **5434** (2009), 572-579.
 25. N. Kolkovska, R. Slavchov, D. Vasileva, On the numerical simulation of surface forces acting on AFM tip. *Proc. BGSIAM'08 (3rd Annual Meeting of the Bulg. section of SIAM, 2008, Sofia)*, *Extended abstracts* (2009), 57-60.
 26. O. Iliev, D. Vassileva, D. Stoyanov, W. Dörfler, On Efficient Simulation of Non-Newtonian Flow in Saturated Porous Media with a Multigrid Adaptive Refinement Solver. *Comput. Visual. Sci.*, **13** (2010), 1-16. Preliminary version in *Report of Fraunhofer Institute for Industrial Mathematics, Kaiserslautern, Germany*, **70** (2004).
 27. C.I. Christov, N. Kolkovska, D. Vasileva, On the Numerical Simulation of Unsteady Solutions for the 2D Boussinesq Paradigm Equation. *Numerical Methods and Applications, 7th International Conference, NMA 2010, Borovets, Bulgaria, 2010, Revised Papers* (eds. I. Dimov, S. Dimova, N. Kolkovska), *Lecture Notes in Com. Sci.*, **6046** (2011), 386-394.
 28. C.I. Christov, N. Kolkovska, D. Vasileva, Numerical Investigation of Unsteady Solutions for the 2D Boussinesq Paradigm Equation. *Proc. BGSIAM'10 (5th Annual Meeting of the Bulg. section of SIAM, 2010, Sofia)*, Demetra, Sofia, 2011, 11-16.
 29. D. Vasileva, C.I. Christov, On the Numerical Investigation of Unsteady Solutions for the 2D Boussinesq Paradigm Equation in a Moving Frame Coordinate System. *Proc. BGSIAM'11 (6th Annual Meeting of the Bulg. section of SIAM, 2011, Sofia)*, Demetra, Sofia, 2012, 103-108.
 30. M. Dimova, D. Vasileva: Comparison of two numerical approaches to Boussinesq paradigm equation, *Lecture Notes in Computer Science* (accepted for publication).
 31. M. Dimova, S. Dimova, D. Vasileva: Numerical Investigation of a New Class of Waves in an Open Nonlinear Heat-Conducting Medium, *Cent. Eur. J. Math.*, (accepted for publication).
 32. S. Dimova, M. Dimova, D. Vasileva: Structures and waves in a nonlinear heat-conducting medium, *Springer Proc. in Math. & Statistics* (accepted for publication).