

References

1. I.T. Dimov, R. Georgieva, **V. Todorov**, Balancing of Systematic and Stochastic Errors in Monte Carlo Algorithms for Integral Equations, Numerical Methods and Applications (I. Dimov, S. Fidanova, and I. Lirkov - Eds.), LNCS 8962, Springer, **2015**, 44-51. DOI: 10.1007/978-3-319-15585-2_5, ISSN: 0302-9743, **SJR (2015): 0.252**.
2. Dimov, I.T., **Todorov, V.**, Error Analysis of Biased Stochastic Algorithms for the Second Kind Fredholm Integral Equation, International Conference on Advanced Computing for Innovation, AComIn 2015, Sofia; (Margenov S.,Angelova G.,Agre G. eds.), Studies in Computational Intelligence 648, **2016**, 3-16. Springer Verlag. DOI: 10.1007/978-3-319-32207-0_1, ISSN: 1860-949X, **SJR(2015): 0.187**.
3. **Todorov, V.**, Dimov, I.T., Monte Carlo Methods for Multidimensional Integration for European Option Pricing, 8th International Conference for Promoting the Application of Mathematics in Technical and Natural Sciences, AMiTaNs 2016, Albena, Bulgaria, 22-27 June 2016, AIP Conference Proceedings 1773, **2016**, 100009-1-100009-13, DOI: 10.1063/1.4965003, ISSN: 0094-243X, **SJR(2015): 0.198**.
4. Dimov I.,J. Kandilarov, **V. Todorov**, L. Vulkov. High-Order Compact Difference Schemes with Richardson Extrapolation for Semilinear Parabolic Systems. IN: Applications of Mathematics in Engineering and Economics, American Institute of Physics, 1789, 030002 (**2017**), DOI: 10.1063/1.4968448, **SJR(2015): 0.198**.
5. S. Dimitrov, I. Dimov, **V. Todorov**, Latin Hypercube Sampling and Fibonacci Based Lattice Method Comparison for Computation of Multidimensional Integrals, In: Proceeding of Sixth Conference on Numerical Analysis and Applications (NAA'16), June 15-22, 2016 Lozenetz, Bulgaria, LNCS 10187, **2017**, doi.org/10.1007/978-3-319-57099-0_32, pp. 302-310,
6. I. Dimov, J. Kandilarov, **V. Todorov**, L. Vulkov, Approach Based on HOC Difference Schemes for Semilinear Parabolic Systems of Atmosphere Modelling. In book: Large-Scale Scientific Computing, LNCS 10665, Springer, 2018, DOI:10.1007/978-3-319-73441-5_49, 450-457. **2018, SJR:0.337**
7. I. Dimov, R. Georgieva, **V. Todorov**, Tz. Ostromsky: Efficient Stochastic Approaches for Sensitivity Studies of an Eulerian Large-scale Air Pollution Model, AIP Conference Proceedings 1895(1):050004, October **2017** DOI: 10.1063/1.5007376, **SJR(2015): 0.198**.
8. I. Dimov, J. Kandilarov, **V. Todorov**, L. Vulkov: Numerical Determination of the Right-Hand Side of Parabolic Systems with Point Measurements, IN: 43rd International Conference Applications of Mathematics in Engineering and Economics (AMEE17), AIP Conference Proceedings 1910 (1), 2017, ISBN:978-0-7354-1602-4, DOI:10.1063/1.5013936, SJR:0.198
9. Chernogorova, T., **Todorov, V.**, Two finite difference schemes for a conjugate fluid- body problem, Proceedings of the Fifth International Conference FDM:TA 39;10, June 28 - July 2, 2010, Lozenetz, Bulgaria, eds.: M. Koleva, L. Vulkov, University of Rousse, pp. 22-36, **2011**.
10. Yuri Dimitrov, Radan Miryanov and **Venelin Todorov**: Quadrature formulas and taylor series of secant and tangent, pp. 23-40, Economic and computer sciences, issue 4, **2017**, Publishing house "Knowledge and business" Varna, ISSN 2367-7791.

11. **V. Todorov**. Computing high dimensional integrals with Monte Carlo methods, Journal Scientific and Applied Research, Konstantin Preslavsky Publishing House, Vol.10, **2016**, 11-16, ISSN 1314-6289.
12. **Todorov, V.**, Dimov, I.: An Almost Optimal Monte Carlo Algorithm for Integral Equations in Neuron Networks, 6th International Scientific Conference on Energy Efficiency and Agricultural Engineering, Ruse, **2015**, ISSN 1311-9974, pp.515-524.
13. **Todorov, V.**, Dzurov, V., Stojanov, P., Angelov, A. (2016). Latin Hypercube and Importance Sampling Algorithms for Multidimensional Integrals. Journal Scientific and Applied Research, 10, **2016**, 17-23, Konstantin Preslavsky Publishing House, ISSN 1314-6289.
14. **Todorov, V.**, Dzurov, V., Dimitrov V.: A comparison of quasi-Monte Carlo methods based on Faure and Sobol sequences for computation of multidimensional integrals, Journal Scientific and Applied Research, Vol. 12, 11-17, Konstantin Preslavsky Publishing House, ISSN 1314-6289, **2017**.
15. **V. Todorov**, I. Dimov, V. Dzurov, T. Stanchev, I. Tsvetkov, V. Dimitrov: A Numerical study on Hammersley sequence and Fibonacci based lattice rule for computation of multidimensional integrals, Journal Scientific and Applied Research, Vol. 12, 18-26, Konstantin Preslavsky Publishing House, ISSN 1314-6289, **2017**.
16. I. Dimov, J. Kandilarov, **V. Todorov**, L. Vulkov, Analysis and Realization of Compact Difference Schemes for Semilinear Parabolic Systems, Proceeding of the International Conference NMSCAA16, ISBN 978-619-7223-18-7, pp 17-21, **2016**.
17. **V. Todorov**, Some applications of Jensen inequality, Mathematical forum, IX, 1, **2007**, pp. 19-22, ISSN: 1311-297X.
18. Dimov, I., Kandilarov, J., **Todorov, V.**, Vulkov, L.: A comparison study of two high accuracy numerical methods for a parabolic system in air pollution modeling. arXiv:1701.03049, (submitted to Neural Computing and Applications, **IF 2.505**).
19. I. Dimov, R. Georgieva, **V. Todorov**. Error analysis of biased stochastic algorithms for a class of integral equations. Extended abstracts of ACOMIN conference, 4 pages, **2015**.
20. **Venelin Todorov**. Monte Carlo methods for multidimensional integrals, integral equations and applications. Abstract of Dissertations, 3, IICT-BAS, Sofia, **2017**, ISSN:1314-6351. URL: <http://www.iict.bas.bg/konkursi/2017/VTodorov/avtoreferat.pdf>.

References used in PhD Thesis

1. I.T. Dimov, R. Georgieva, V. Todorov, Balancing of Systematic and Stochastic Errors in Monte Carlo Algorithms for Integral Equations, Numerical Methods and Applications (I. Dimov, S. Fidanova, and I. Lirkov - Eds.), LNCS 8962, Springer, 2015, 44-51. DOI: 10.1007/978-3-319-15585-2_5, ISSN: 0302-9743, SJR (2015): 0.252.
2. Dimov, I.T., Todorov, V., Error Analysis of Biased Stochastic Algorithms for the Second Kind Fredholm Integral Equation, International Conference on Advanced Computing for Innovation, AComIn 2015, Sofia; Bulgaria, 10-11 November 2015, 2015 (Margenov S., Angelova G., Agre G. eds.), Studies in Computational Intelligence 648, 2016, 3-16. Springer Verlag. DOI: 10.1007/978-3-319-32207-0_1, ISSN: 1860-949X, SJR(2015): 0.187.

3. Todorov, V., Dimov, I.T., Monte Carlo Methods for Multidimensional Integration for European Option Pricing, 8th International Conference for Promoting the Application of Mathematics in Technical and Natural Sciences, AMiTaNS 2016, Albena, Bulgaria, 22-27 June 2016, AIP Conference Proceedings 1773, 2016, 100009-1-100009-13, DOI: 10.1063/1.4965003, ISSN: 0094-243X, SJR(2015): 0.198.
4. Dimov I.,J. Kandilarov, V. Todorov, L. Vulkov. High-Order Compact Difference Schemes with Richardson Extrapolation for Semilinear Parabolic Systems. IN: Applications of Mathematics in Engineering and Economics, American Institute of Physics, 1789, 030002 (2016), DOI: 10.1063/1.4968448, SJR(2015): 0.198.
5. V. Todorov. Computing high dimensional integrals with Monte Carlo methods, Journal Scientific and Applied Research, Konstantin Preslavsky Publishing House, Vol.10, 2016, 11-16, ISSN 1314-6289.

Citations

1. Farshid Mirzaee, Nasrin Samadyar. Application of orthonormal Bernstein polynomials to construct an efficient scheme for solving fractional stochastic integro-differential equation, Optik - International Journal for Light and Electron Optics, IF: 0.742, Volume 132, March 2017, Pages 262-273, doi: 10.1016/j.ijleo.2016.12.029.

Dimov, I.T., Todorov, V., Error Analysis of Biased Stochastic Algorithms for the Second Kind Fredholm Integral Equation, International Conference on Advanced Computing for Innovation, AComIn 2015, Sofia; Bulgaria, 10-11 November 2015, 2015 (Margenov S.,Angelova G.,Agre G. eds.), Studies in Computational Intelligence 648, 2016, 3-16. Springer Verlag. DOI: 10.1007/978-3-319-32207-0_1. ISSN: 1860-949X. SJR(2015): 0.187.

Conferences

1. 9th International Conference on „Large-Scale Scientific Computations“ (LSSC 2013), Sozopol, Bulgaria, 2013.
2. 8th International Conference on Numerical Methods and Applications: NMA'14, Borovetz, Bulgaria, 2014.
3. 10 th IMACS Seminar on Monte Carlo Methods, Linz, Austria, July 6-10, 2015. URL: http://parallel.bas.bg/dpa/IMACS_MCM_2011/Organization.html
4. International Conference on Advanced Computing for Innovation, AComIn 2015, 10-11 November, 2015, Sofia.
5. International Conference Numerical Methods for Scientific Computations and Advanced Applications, NMSCAA16, 29 may-2 June, Hisarya, Bulgaria, 2016.
6. APPLICATION OF MATHEMATICS IN TECHNICAL AND NATURAL SCIENCES: 8th International Conference for Promoting the Application of Mathematics in Technical and Natural Sciences - AMiTaNS'16, 22-27 June 2016, Albena.
7. APPLICATION OF MATHEMATICS IN TECHNICAL AND NATURAL SCIENCES: 9th International Conference for Promoting the Application of Mathematics in Technical and Natural Sciences - AMiTaNS'17, 21-26 June 2017, Albena.

8. 11th International Conference on “Large-Scale Scientific Computations” (LSSC 2017), Sozopol, Bulgaria, June 2017.
9. 12th Annual Meeting of the Bulgarian Section of SIAM December 20 - 22, 2017, Sofia, Bulgaria (BGSIAM’17) (presented by the coauthor)

Projects

1. Young scientists project of BAS, DFNP 17-88/28.07.2017 (Coordinator: Venelin Todorov, IICT-BAS) Efficient Numerical Methods with an Improved Rate of Convergence for Applied Computational Problems, 2017-2019
2. Bulgarian National Fund of Science under Project DN 12/4-2017 ”Advanced Analytical and Numerical Methods for Nonlinear Differential Equations with Applications in Finance and Environmental Pollution” (Coordinator: Miglena Koleva, Rousse University), 2017-2021
3. Bulgarian National Fund of Science under Project DN 12/5-2017 ”Efficient Stochastic Methods and Algorithms for Large-Scale Computational Problems” (Coordinator: Stefka Fidanova, IICT-BAS), 2017-2021
4. Young scientists project of BAS, DFNP 91-A1/04.05.2016 (Coordinator: Venelin Todorov, IICT-BAS) Monte Carlo methods for multidimensional integrals, integral equations, linear systems and applications, 2016-2017
5. Efficient Parallel Algorithms for Large-scale Scientific Computations, FNI I-02-20/2014 (Coordinator: Ivan Dimov, from 2016 - Stefka Fidanova, IICT-BAS), 2014-2017
6. Development and study of new Monte Carlo methods for modeling of complex systems, DMU 03/61, 2011-2013 (Coordinator: Rayna Georgieva, IICT-BAS)
7. Advanced Computing for Innovation (AComIn) FP7 Capacity Programme, Research Potential of Convergence Regions, FP7-REGPOT-2012-2013-1, 316087, 2012-2015 (Project coordinator: Prof. DSc. Galya Angelova, IICT-BAS).