

Списък на всички научни публикации - публикувани

- **Звено:** (ИИКТ) Институт по информационни и комуникационни технологии
 - **Секция:** (ИИКТ) Грид-технологии и приложения
 - **Име:** (ИИКТ/0071) Караиванова, Анета
 - **Година на публикуване:** 1993 ÷ 2018
 - **Тип записи:** Всички записи
1. Dimov I., **Karaivanova, A.** Monte Carlo Parallel Algorithms. Proc. Third Int. Conference on Applications of Supercomputers in Engineering ASE'93, Comp. Mech Publ., Elsevier, 1993, 479-495
 2. **Karaivanova, A.**, Djerassi, E.. Track Formation Using MHT Approach. Math Modelling Methodology, Software Tools and Appl, DATECS Publ, 1993, 27-31
 3. Dimov, I., **Karaivanova, A.** Overconvergent Monte Carlo Methods for density-function modeling using B-splines. in: Advances in Num. Methods and Appl., Proceedings of the Third International Conference on Numerical Methods and Applications, eds. I. T. Dimov, Bl. Sendov, P.S. Vassilevski, World Scientific , Singapore, 1994, ISBN:978-981-4550-28-4 (e-book), DOI:10.1142/2509, 85-93
 4. **Karaivanova, A.**, Semerjiev, Tz.. Ballistic Trajectory Estimation Using Monte Carlo Simulation. Advances in Parallel Algorithms, IOS, Press, 1994, 112-116
 5. Kuchen, H., Stoltze, H., Dimov, I., **Karaivanova, A.** Distributed Memory Implementation of Elliptic Partial Differential Equations in a Data parallel Functional Language. Proceedings of the International Conference on Programming Models for Massively Parallel Computers, IEEE Computer Society Press, 1995, DOI:10.1109/PMMP.1995.504352, 142-150
 6. Dimov, I. T., **Karaivanova, A.**, Kuchen, H., Stoltze, H.. Monte Carlo Algorithms for Elliptic Differential Equations. Data Parallel Functional Approach. Parallel Algorithms and Applications, 9, 1-2, Taylor & Francis Group, 1996, ISSN:1063-7192, DOI:10.1080/10637199608915563, 39-65
 7. Dimov, I., **Karaivanova, A.** A Fast Monte Carlo Method for Matrix Computations. Iterative Methods in Linear Algebra II (S. Margenov and P. Vassilevski Eds.), 3, IMACS Series in Computational and Applied Mathematics, 1996, 204-215
 8. Dimov, I., **Karaivanova, A.** Iterative Monte Carlo algorithms for linear algebra problems. Numerical Analysis and Its Applications (L. Vulkov, J. Wasniewski, P. Yalamov Eds.), 1196, LNCS Springer-Verlag, 1997, ISSN:978-3-540-62598-8, DOI:10.1007/3-540-62598-4_89, 150-160. SJR:0.295
 9. **Karaivanova, A.** Adaptive Monte Carlo methods for numerical integration. Mathematica Balkanica, 11, 3-4, 1997, 391-406
 10. Dimov, I., **Karaivanova, A.**, Yordanova, P.. Monte Carlo Algorithms for Calculating Eigenvalues. Monte Carlo and Quasi-Monte Carlo Methods 1996, Lecture Notes in Statistics,

- 127, Springer New York, 1998, ISBN:978-0-387-98335-6; O, DOI:10.1007/978-1-4612-1690-2_12, 205-220. SJR:0.111
11. Dimov, I., **Karaivanova, A.** Parallel computations of eigenvalues based on a Monte Carlo approach. *Monte Carlo Methods and Applications*, 4, 1, VSP, Berlin, Germany : De Gruyter, 1998, ISSN:0929-9629, DOI:10.1515/mcma.1998.4.1.33, 33-52. SJR:0.417
12. Dimov, I., Aleksandrov, V., **Karaivanova, A.** Implementation of Monte Carlo algorithms for eigenvalue problem using MPI. *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics)*, 1497, Springer, 1998, ISBN:978-3-540-65041-6, DOI:10.1007/BFb0056594, 346-353. SJR:0.34
13. **Karaivanova, A.**, Dimov, I. T.. Error analysis of an adaptive Monte Carlo method for numerical integration. *Mathematics and Computers in Simulation*, 47, 2-5, Elsevier, 1998, ISSN:0378-4754, DOI:10.1016/S0378-4754(98)00103-7, 201-213. ISI IF:0.949
14. Dimov, I., **Karaivanova, A.** A power method with Monte Carlo iterations. in: *Recent Advances in Numerical Methods and Applications II*, (O. Iliev, M. Kaschiev, S. Margenov, Bl. Sendov, P. Vassilevski eds), World Scientific, 1999, ISBN:978-981-4291-07-1, DOI:10.1142/9789814291071_0022, 239-247
15. Alexandrov, V., **Karaivanova, A.** Parallel Monte Carlo Algorithms for Sparse SLAE using MPI. *Recent Advances in Parallel Virtual Machine and Message Passing Interface*, LNCS, 1697, Springer, 1999, ISBN:3540665498;978-354066549-6, ISSN:03029743, DOI:10.1007/3-540-48158-3_35, 283-290. SJR:0.299
16. Dimov, I., **Karaivanova, A.** Statistical Numerical Methods for Eigenvalue Problem. Parallel Implementation. *Pliska Studia Mathematica Bulgarica*, 13, 2000, ISSN:ISSN 0204-9805, 133-149
17. Mascagni, M., **Karaivanova, A.** What are quasirandom numbers and are they good for anything besides integration?. *Proceedings of Advances in Reactor Physics and Mathematics and Computation into the Next Millenium*, 2000
18. Dimov, I. T., Aleksandrov, V., **Karaivanova, A.** Parallel resolvent Monte Carlo algorithms for linear algebra problems. *Mathematics and Computers in Simulation*, 55, 1-3, Elsevier, 2001, ISSN:0378-4754, DOI:10.1016/S0378-4754(00)00243-3, 25-35. ISI IF:0.949
19. **Karaivanova, A.**, Dimov, I., Ivanovska, S.. A Quasi-Monte Carlo Method for Integration with Improved Convergence. *Lecture Notes in Computer Science*, 2179, Springer, Berlin, Heidelberg, 2001, ISBN:978-3-540-45346-8, ISSN:0302-9743, DOI:10.1007/3-540-45346-6_15, 158-165. SJR:0.399
20. **Karaivanova, A.**, Georgieva, R.. Solving Systems of Linear Algebraic Equations Using Quasirandom Numbers. *Lecture Notes in Computer Science*, 2179, Springer Verlag, 2001, ISBN:978-3-540-43043-8, ISSN:0302-9743, DOI:10.1007/3-540-45346-6_16, 166-174. SJR:0.311, ISI IF:0.415
21. Mascagni, M., **Karaivanova, A.**, Li, Y.. A quasi-Monte Carlo method for elliptic partial differential equations. *Monte Carlo Methods and Applications*, 7, 3-4, 2001, DOI:10.1515/mcma.2001.7.3-4.283, 283-294. SJR:0.205

22. Mascagni, M., **Karaivanova, A.** Matrix Computations Using Quasirandom Sequences. Numerical Analysis and Its Applications, LNCS, 1988, Springer, 2001, ISSN:03029743, DOI:10.1007/3-540-45262-1_65, 552-559. SJR:0.399
23. Mascagni, M., **Karaivanova, A.** A Parallel Quasi-Monte Carlo Method for Computing Extremal Eigenvalues. In: Fang KT., Niederreiter H., Hickernell F.J. (eds) Monte Carlo and Quasi-Monte Carlo Methods 2000, Springer Berlin Heidelberg, 2002, ISBN:978-3-642-56046-0, DOI:10.1007/978-3-642-56046-0_25, 369-380
24. Mascagni, M., **Karaivanova, A.** A parallel Quasi-Monte Carlo method for solving systems of linear equations. Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics), 2330, PART 2, 2002, ISSN:0302-9743, DOI:10.1007/3-540-46080-2_62, 598-608. SJR:0.252
25. Dimov, I. T., **Karaivanova, A.**, Georgieva, R., Ivanovska, S. Parallel Importance Separation and Adaptive Monte Carlo Algorithms for Multiple Integrals. Numerical Methods and Applications, Lecture Notes in Computer Science, 2542, Springer Berlin Heidelberg, 2003, ISBN:978-3-540-00608-4; O, ISSN:0302-9743, DOI:10.1007/3-540-36487-0_10, 99-107. SJR:0.34
26. **Karaivanova, A.**, Mascagni, M.. Quasi-Monte Carlo Methods for Some Problems in Linear Algebra. Proceedings of the 7th Joint Conference on Information Sciences, 2003, 1754-1757
27. Alexandrov, V., Dimov, I., **Karaivanova, A.**, Tan, Chih Jeng Kenneth. Parallel Monte Carlo algorithms for information retrieval. Mathematics and Computers in Simulation, 62, 3-6, Elsevier, 2003, ISSN:0378-4754, DOI:10.1016/S0378-4754(02)00252-5, 289-295. ISI IF:1.476
28. Mascagni, M., **Karaivanova, A.** A Monte Carlo Approach for Finding More than One Eigenpair. Numerical Methods and Applications, LNCS, 2542, Springer, 2003, ISSN:0302-9743, DOI:10.1007/3-540-36487-0_13, 123-131. SJR:0.41
29. Ivanovska, S., **Karaivanova, A.** Parallel Importance Separation for Multiple Integrals and Integral Equations. Computational Science-ICCS 2004, LNCS, 3039, Springer, 2004, DOI:10.1007/978-3-540-25944-2_65, 499-506. SJR:0.347
30. **Karaivanova, A.**, Mascagni, M., Simonov, N.. Parallel Quasirandom Walks on the Boundary. Monte Carlo Methods and Applications, 10, 3-4, Walter de Gruyter GmbH, 2004, ISSN:0929-9629, DOI:10.1515/mcma.2004.10.3-4.311, 311-319. SJR:0.417
31. **Karaivanova, A.**, Mascagni, M., Simonov, N.. Solving BVPs Using Quasirandom Walks on the Boundary. Large-Scale Scientific Computing, LNCS, 2907, Springer, 2004, DOI:10.1007/978-3-540-24588-9_17, 162-169. SJR:0.347
32. Mascagni, M., **Karaivanova, A.**, Hwang, C.. Quasi-Monte Carlo Methods for Elliptic BVPs. Monte Carlo and Quasi-Monte Carlo Methods, Springer, 2004, 345-355
33. Rasulov, A., **Karaivanova, A.**, Mascagni, M.. Quasirandom Sequences in Branching Random Walks. Monte Carlo Methods and Applications, 10, 3-4, De Gruyter, 2004, ISSN:0929-9629, DOI:10.1515/mcma.2004.10.3-4.551, 551-558. SJR:0.647

34. Atanassov, E., Gurov, T., **Karaivanova, A.**, Nedjalkov, M.. SALUTE – an MPI GRID Application. MIPRO 2005 - 28th International Convention Proceedings: Microelectronics, Electronics and Electronic Technologies MEET, Hypermedia and Grid Systems HGS, 1, 2005, ISBN:953-233-011-9, 259-262
35. Ivanovska, S., Atanassov, E., **Karaivanova, A.** A Superconvergent Monte Carlo Method for Multiple Integrals on the Grid. LNCS, 3516 (III), 3, Springer, 2005, ISSN:03029743, DOI:10.1007/11428862_100, 735-742. SJR:0.334
36. Alexandrov, V., **Karaivanova, A.** Finding the smallest eigenvalue by the Inverse Monte Carlo Method with Refinement. LNCS, 3516 (III), 3, Springer, 2005, ISSN:03029743, DOI:10.1007/11428862_104, 766-774. SJR:0.334
37. Atanassov, E., Gurov, T., **Karaivanova, A.**, Nedjalkov, M.. Monte Carlo Grid Application for Electron Transport. Lecture Notes in Computer Science, 3993, 3, Springer, 2006, ISBN:978-3-540-34383-7, DOI:10.1007/11758532_81, 616-623. SJR:0.317
38. Atanassov, E., Gurov, T., **Karaivanova, A.** Bulgarian Involvement in the European Grid Operations. Virtual Observatory: Plate Content Digitization, Archive Mining and Image Sequence Processing, Heron Press Ltd., 2006, ISBN:954-580-190-5, 409
39. Atanassov, E., Gurov, T., **Karaivanova, A.** Computational Grid: Structure and Applications. Journal Automatics and Informatics, 3, 2006, ISSN:0861-7562, 40-43
40. **Karaivanova, A.**, Simonov, N.. A Quasi-Monte Carlo Methods for Investigating Electrostatic Properties of Organic Pollutant Molecules in Solvent. Lecture Notes in Computer Science, 3743, Springer, 2006, DOI:10.1007/11666806_18, 172-180. SJR:0.317
41. Atanassov, E., Georgieva, R., Gurov, T., Ivanovska, S., **Karaivanova, A.**, Nedjalkov, M.. New Algorithms in the Grid Application SALUTE. Proceedings of the 30th International Convention MIPRO 2007 (conference on Hypermedia and Grid Systems), 1, Croatian Society for Information and Communication Technology, 2007, ISBN:978-953-233-032-8, 217-222
42. **Atanassov, E.**, Gurov, T., **Karaivanova, A.** SALUTE Application for Quantum Transport-New Grid Implementation Scheme. Proceedings of the Spanish Conference on e-Science Grid Computing, CIEMAT; Madrid (Spain), 2007, ISBN:987-84-7834-544-1, 23-32
43. **Karaivanova, A.**, Chi, H., Gurov, T.. Quasi-random walks on balls using c.u.d. sequences. LNCS, 4310, Springer, 2007, ISBN:978-3-540-70940-4, ISSN:0302-9743, DOI:10.1007/978-3-540-70942-8_19, 165-172. SJR:0.295
44. Atanassov, E., Gurov, T., **Karaivanova, A.**, Nedjalkov, M., Ivanovska, S., Georgieva, R.. SALUTE – Grid application for Quantum Transport. BGSIAM proceeding of the 2nd Annual Meeting of Bulgarian Section of SIAM, Demetra, 2008, ISSN:1313-3357, C-23-C-25
45. Atanassov, E., Gurov, T., **Karaivanova, A.** Grid Services in the SEE-GRID infrastructure. BAS News, 62, 10, 2008, ISSN:1312-2436, 2-4
46. Atanassov, E., Gurov, T., **Karaivanova, A.** Ultra-fast semiconductor carrier transport simulation on the grid. Lecture Notes in Computer Science, 4818, Springer, 2008, ISSN:03029743, DOI:10.1007/978-3-540-78827-0_52, 461-469. SJR:0.295

47. Dimov, I.T., Philippe, B., **Karaivanova, A.**, Weihrauch, C.. Robustness and applicability of Markov chain Monte Carlo algorithms for eigenvalue problems. Applied Mathematical Modelling, 32, 8, Elsevier Inc., 2008, ISSN:0307-904X, DOI:10.1016/j.apm.2007.04.012, 1511-1529. SJR:1.283, ISI IF:2.251
48. **Karaivanova, A.**, Atanassov, E., Gurov, T., Stevanovic, R., Skala, K.. Variance reduction MCMs with application in environmental studies: Sensitivity analysis. American Institute of Physics Conference Proceedings Series, 1067, AIP, 2008, ISBN:978-0-7354-0598-01, DOI:10.1063/1.3030829, 549-558. SJR:0.103
49. Stevanovic, R., Skala, K., **Karaivanova, A.**, Atanassov, E., Gurov, T.. A True Random Number Service and its Applications. Proceedings of MIPRO 2008/GVS, 1, 2008, ISBN:978-953-233-036-6, 243-248
50. Atanassov, E., Gurov, T., **Karaivanova, A.**, Ivanovska, S., Durchova, M.. Using Sobol Sequence in Grid Environment. Proceeding of 32nd International Convention MIPRO/GVS 2009, 1, 2009, ISBN:978-953-233-044-1, 290-294
51. Atanassov, E., **Karaivanova, A.**, Gurov, T., Ivanovska, S., Durchova, M.. Parallel Quasi-Monte Carlo Integration with Application in Environmental Studies. SEE-GRID-SCI User Forum, 2009, ISBN:978-975-403-510-0, 67-71
52. **Karaivanova, A.**, Chi, H., Gurov, T.. Error Analysis of Quasirandom Walks on Balls. MIPRO/GVS 2009, 1, IEEE, 2009, ISBN:978-953-233-044-1, 285-289
53. Ganev K., Syrakov D., Prodanova M., Atanassov E., Gurov T., **Karaivanova A.**, Miloshev N., Chervenkov H. Grid Computing for Air Quality and Environmental: Studies in Bulgaria. EnviroInfo 2009 (Berlin), Environmental Informatics and Industrial Environmental Protection: Concepts, Methods and Tools, Shaker Verlag, 2009, ISBN:978-3-8322-8397-1, 147-155
54. Syrakov, D., Prodanova, M., Ganev, K., Miloshev, N., Atanassov, E., Gurov, T., **Karaivanova, A.**. Grid Computing for Multi-Scale Atmospheric Composition Modelling for the Balkan Region. Journal of International Scientific Publication: Ecology & Safety, 3, 2009, ISSN:1313-2563, 4-21
55. Syrakov, D., Prodanova, M., Ganev, K., Miloshev, N., Atanassov, E., Gurov, T., **Karaivanova, A.**. The grid computing – Powerful tool for Multi-Scale Atmospheric Composition Modelling. 9th International Multidisciplinary Scientific Geoconference and EXPO - Modern Management of Mine Producing, Geology and Environmental Protection, SGEM 2009, 2, Surveying Geology & Mining Ecology Management (SGEM), 2009, ISBN:978-954918181-4, 365-372
56. Atanassov, E., Gurov, T., **Karaivanova, A.**, Nedjalkov, M., Vasilevska, D., Raleva, K.. Electron-phonon interaction in nanowires: A Monte Carlo study of the effect of the field. Mathematics and Computers in Simulation, 81, 3, 2010, ISSN:0378-4754, DOI:10.1016/j.matcom.2009.09.006, 515-521. ISI IF:1.476
57. Atanassov, E., Gurov, T., **Karaivanova, A.**. New Developments for Effective use of the Grid Infrastructure. BAS News, 79, 3, 2010, ISSN:1312-2436, 2-4

58. Atanassov, E., Gurov, T., **Karaivanova, A.** Ultra-fast Carrier Transport Simulation on the Grid. Quasi-Random Approach. Scalable Computing: Practice and Experience, 11, 2, 2010, ISSN:1895-1767, 137-147. SJR:0.111
59. Atanassov, E., Gurov, T., Slavov, D., Ivanovska, S., **Karaivanova, A.** JTS and its Application in Environmental Protection Applications. EGU General Assembly, 2010, 5211
60. Atanassov, E., Ivanovska, S., **Karaivanova, A.**, Slavov, D.. GPU-based Integration with Application in Sensitivity Analysis. Geophysical Research Abstracts, EGU General Assembly 2010, 12, 2010, 5174
61. Atanassov, E., **Karaivanova, A.**, Gurov, T., Ivanovska, S., Durchova, M., Dimitrov, D.S.. Quasi-Monte Carlo integration on the grid for sensitivity studies. Earth Science Informatics, 3, 4, Springer-Verlag, 2010, ISSN:1865-0473, DOI:10.1007/s12145-010-0069-9, 289-296. SJR:0.24
62. Atanassov, E., **Karaivanova, A.**, Gurov, T.. Quasi-random Approach in the Grid Application SALUTE. Parallel Processing and Applied Mathematics, 6068, Part 2, LNCS, 2010, ISSN:0302-9743, DOI:10.1007/978-3-642-14403-5_22, 204-213. SJR:0.322
63. Atanassov, E., **Karaivanova, A.**, Ivanovska, S.. Tuning the Generation of Sobol Sequence with Owen Scrambling. Large-Scale Scientific Computing, 5910, 2010, DOI:10.1007/978-3-642-12535-5_54, 459-466. SJR:0.322
64. **Karaivanova, A.**, Atanassov, E., Gurov, T., Durchova, M., Ivanovska, S.. Parallel Quasi random Applications on Heterogeneous Grid. Scalable Computing: Practice and Experience, 11, 1, 2010, ISSN:1895-1767, 73-80. SJR:0.111
65. **Karaivanova, A.**, Ivanovska, S.. Matrix computations using quasi-Monte Carlo with scrambling. MIPRO 2010 - 33rd International Convention on Information and Communication Technology, Electronics and Microelectronics, Proceedings, 2010, ISBN:978-1-4244-7763-0, 216-219
66. **Karaivanova, A.** Quasi-Monte Carlo Methods for some Linear Algebra Problems. Convergence and Complexity. Serdica Journal of Computing, 4, 1, 2010, ISSN:1312-6555, 57-72
67. Atanassov, E., Gurov, T., **Karaivanova, A.** Capabilities of the HPC cluster at IICT-BAS. Automatika and Informatika, 2, 2011, ISSN:0861 -7562, 7-11
68. Atanassov, E., Gurov, T., **Karaivanova, A.** Security issues of the combined usage of Grid and Cloud resources. MIPRO, 2012 Proceedings of the 35th International Convention, IEEE, 2012, ISBN:978-953233072-4, 417-420
69. Atanassov, E., Petrov, G., Dechev, M., **Karaivanova, A.**, Gurov, T., Durchova, M.. HPC cluster with GPGPU capabilities. Performance and features evaluation. Proceedings of VIII Serbian-Bulgarian Astronomical Conference, SBAC2012, Elsevier, 2012, ISBN:978-163266220-0, 105-111
70. Gurov, T., Atanassov, E., **Karaivanova, A.** Monte Carlo Methods for Electron Transport: Scalability Study. Proceedings - 2012 11th International Symposium on Parallel and

Distributed Computing, ISPCD 2012, IEEE, 2012, ISBN:978-076954805-0, DOI:10.1109/ISPCD.2012.33, 188-194

71. Gurov, T., Ivanovska, S., **Karaivanova, A.**, Manev, N.. A Study of a New Class of Random Number Generators for Monte Carlo Methods. Journal Information Technologies and Control, 3, 2012, ISSN:1312-2622, 2-7
72. Gurov, T., Ivanovska, S., **Karaivanova, A.**, Manev, N.. Monte Carlo methods using new class of congruential generators. AISC, ICT Innovations 2011, 150, Springer, 2012, ISBN:978-3-642-28663-6, ISSN:1867-5662, DOI:10.1007/978-3-642-28664-3_24, 257-267. SJR:0.149
73. Ivanovska, S., **Karaivanova, A.**, Manev, N.. Numerical Integration Using Sequences Generating Permutations. Large-Scale Scientific Computing, 7116, Springer, 2012, ISSN:0302-9743, DOI:10.1007/978-3-642-29843-1_51, 455-463. SJR:0.252
74. **Анета Караиванова**. Стохастични числени методи и симулации. Деметра ЕООД, 2012, ISBN:978-954-9526-78-3, 102
75. Atanassov, E., Gurov, T., **Karaivanova, A.** Message oriented framework with low overhead for efficient high-performance Monte Carlo simulations. Poceedings of the 36th International Convention on Information & Communication Technology Electronics & Microelectronics (MIPRO), IEEE, 2013, ISBN:978-953233076-2, ISSN:1847-3946, 169-171
76. **Karaivanova, A.**, Atanassov, E., Gurov, T.. Monte Carlo Simulation of Ultrafast Carrier Transport: Scalability Study. Procedia Computer Science, 18, Elsevier, 2013, ISSN:1877-0509, DOI:10.1016/j.procs.2013.05.401, 2298-2306. SJR:0.236
77. Atanassov, E., Georgiev, D., Gurov, T., **Karaivanova, A.**, Nikolova, Y.. Distributed System for Query Processing with Grid Authentication. 8353, Springer, 2014, ISSN:0302-9743, DOI:10.1007/978-3-662-43880-0_53, 467-475. SJR:0.354
78. Atanassov, E., Gurov, T., **Karaivanova, A.**, Ivanovska, S., Durchova, M., Georgiev, D., Dimitrov, D.. Tuning for Scalability on Hybrid HPC Cluster. Mathematics in Industry, Cambridge Scholar Publishing, 2014, ISBN:978-1-4438-6401-5, 64-77
79. Atanassov, E., Gurov, T., **Karaivanova, A.** Energy Aware Performance Study for a Class of MC Algorithms. Proceedings of the International Conference, NMSCAA'14, Demetra, Sofia, 2014, ISBN:978-954-91700-7-8, 15-18
80. Atanassov, E., Gurov, T., **Karaivanova, A.** Simulation of Electron Transport Using HPC Infrastructure in South-Eastern Europe. Modeling and Optimization in Science and Technologies, 2, Springer Verlag, 2014, ISBN:978-3-319-01520-0, ISSN:21967326, DOI:10.1007/978-3-319-01520-0-1, 1-13
81. Gurov, T., **Karaivanova, A.**, Atanassov, E., Serbezov, R., Spassov, N.. Statistical Estimation of Brown bears population in Rhodope Mountains. Proceedings of the International Conference, NMSCAA'14, Demetra, Sofia, 2014, ISBN:978-954-91700-7-8, 43-46
82. Dulea, M., **Karaivanova, A.**, Oulas, A., Liabotis, I., Stojilkovic, D., Prnjat, O.. High-Performance Computing Infrastructure for South East Europe's Research Communities. Modeling and

Optimization in Science and Technologies, 2, 2014, ISSN:2196-7326, DOI:10.1007/978-3-319-01520

83. Atanassov, E., Gurov, T., **Karaivanova, A.** Energy Performance Evaluation of Quasi-Monte Carlo Algorithms on Hybrid HPC. LNCS, 9374, Springer International Publishing, 2015, ISBN:978-3-319-26519-3, ISSN:0302-9743, DOI:10.1007/978-3-319-26520-9_18, 172-181. SJR:0.339
84. Atanassov, E., Gurov, T., **Karaivanova, A.** Parallel Grid Applications. Grid Computing: Techniques and Future Prospects, eds. Jorge G. Barbosa and Inês Dutra, Nova Science Publishers, 2015, ISBN:978-1-63117-704-0, 129-155
85. Atanassov, E., Gurov, T., **Karaivanova, A.** Energy aware performance study for a class of computationally intensive Monte Carlo algorithms. Computers and Mathematics with Applications, 70, 11, Elsevier, 2015, ISSN:0898-1221, DOI:10.1016/j.camwa.2015.07.014, 2719-2725. SJR:1.121, ISI IF:1.697
86. **Karaivanova, A.**, Ivanovska, S., Gurov, T.. Monte Carlo Method for Density Reconstruction Based on Insufficient Data. Procedia Computer Science, 51, 1, Elsevier, 2015, ISSN:1877-0509, DOI:10.1016/j.procs.2015.05.390, 1782-1790. SJR:0.503
87. Alexandrov, V., Esquivel-Flores, O., Ivanovska, S, **Karaivanova, A.** On the Preconditioned quasi-Monte Carlo Algorithm for Matrix Computations. Lecture Notes in Computer Science, 9374, Springer International Publishing, 2015, ISBN:978-3-319-26519-3, ISSN:0302-9743, DOI:10.1007/978-3-319-26520-9_17, 163-171. SJR:0.339
88. Atanassov, E., Durchova, M., Gurov, T., Ivanovska, S., **Karaivanova, A.** On Improving the QRN Generation Performance on Intel MIC Architectures. Proceedings of Int. Conf. "Numerical methods for Scientific Computations and Advanced Applications", ed. Kr. Georgiev, Fastprint, 2016, ISBN:978-619-7223-18-7, 7-10
89. Atanassov, E., Gurov, T., **Karaivanova, A.**, Ivanovska, S., Durchova, M., Dimitrov, D.. On the parallelization approaches for Intel MIC architecture. AIP Conference Proceedings, 1773, AIP Publishing, 2016, ISBN:978-073541431-0, ISSN:0094-243X, DOI:10.1063/1.4964983, 070001-1-070001-9. SJR:0.165
90. Atanassov, E., **Karaivanova, A.**, Gurov, T. Services And Infrastructure For Virtual Research Environments - For Use By Science And Business. Industry 4.0, 1, 2, Sci Tech Union of Mechanical, 2016, ISSN:2543-8582, 110-113
91. Gurov, T., **Karaivanova, A.**, Alexandrov, V.. Energy study of Monte Carlo and Quasi-Monte Carlo algorithms for solving integral equations. Procedia Computer Science, 80, Elsevier, 2016, ISSN:1877-0509, DOI:10.1016/j.procs.2016.05.492, 1897-1905. SJR:0.259
92. Atanassov, E., Gurov, T., Ivanovska, S., **Karaivanova, A.** Parallel Monte Carlo on Intel MIC Architecture. Procedia Computer Science, 108, Elsevier, 2017, ISSN:1877-0509, DOI:10.1016/j.procs.2017.05.149, 1803-1810. SJR:0.258
93. Gurov, T., Atanassov, E., **Karaivanova, A.**, Serbezov, R., Spassov, N.. Statistical Estimation of Brown Bears (*Ursus arctos* L.) Population in the Rhodope Mountains. Procedia Computer

Science, 108, Elsevier, 2017, ISSN:1877-0509, DOI:10.1016/j.procs.2017.05.272, 2028-2037.
SJR:0.258

94. **Karaivanova, A.**, Alexandrov, V., Gurov, T., Ivanovska, S.. On the Monte Carlo Matrix Computations on Intel MIC Architecture. Cybernetics and Information Technologies, 17, 5, Bulgarska Akademiya na Naukite 1, 2017, ISSN:1311-9702, DOI:10.1515/cait-2017-0054, 49-59. SJR:0.203
95. Atanassov, E., Gurov, T., Durchova, M., Ivanovska, S., **Karaivanova, A.**. Study of Scalability and Energy Efficiency of QMC Algorithm on Hybrid HPC Systems. Proceedings of Int. Conf. "Numerical methods for Scientific Computations and Advanced Applications" (NMSCAA'18) , ed. Kr. Georgiev, Fastprint, 2018, ISBN:978-954-91700-7-8, 6-9
96. Atanassov, E., Gurov, T., Ivanovska, S., **Karaivanova, A.**, Simchev, T. On the Parallel Implementation of Quasi-Monte Carlo Algorithms. Lecture Notes in Computer Science, 10665, Springer International Publishing, 2018, DOI:10.1007/978-3-319-73441-5_27, 258-265. SJR:0.295
97. **Karaivanova, A.**, Mishev, A.. Introduction to the Special Issue on E-Infrastructures for Excellent Science: Advances in Life Sciences. Scalable Computing: Practice and Experience, 19, 2, West University of Timisoara, 2018, ISSN:1895-1767, DOI:10.12694/scpe.v19i2.1401, 3-4. SJR:0.18
98. Alexandrov, V., Davila, D., Esquivel-Flores, O., **Karaivanova, A.**, Gurov, T., Atanassov, E.. On Monte Carlo and quasi-Monte Carlo Methods for Matrix Computations. Lecture Notes in Computer Science, 10665, Springer-Verlag, 2018, DOI:10.1007/978-3-319-73441-5_26, 249-257. SJR:0.295