

Publications

Books

Published Monographs

1. * Kachiashvili K.J. (1989) *Bayesian algorithms of many hypothesis testing*. Ganatleba, Tbilisi, 144 p. (In Russian)
2. ** Primak A.V., Kafarov V.V. and Kachiashvili K.J. (1991) *System Analysis of Control and Management of Air and Water Quality*. Naukova Dumka, Kiev, 360 p. (Science and technical progress) (In Russian)
3. Kachiashvili K.J., Gordeziani D.G. and Melikdzhanian D.I. (2007) *Mathematical models, methods and algorithms of control and regulation of water quality in rivers*. Georgian Technical University, Tbilisi, 251 p. (In Russian)
4. Kachiashvili K.J. and Melikdzhanian D.I. (2012) *Advanced Modeling and Computer Technologies for Fluvial Water Quality Research and Control*. Nova Science Publishers, Inc., New York, 348 p. (In English) Scopus ID: 84891970149.
http://www.novapublishers.org/catalog/advanced_search_result.php?keywords=Kachiashvili&x=15&y=11
5. Kachiashvili K.J., Melikdzhanian D.I. and Prangishvili A.I. (2015) *Computing Algorithms for Solutions of Problems in Applied Mathematics and Their Standard Program Realization*. Part 1-Deterministic Mathematics. Nova Science Publishers, Inc., New York, 372 p. (In English) Scopus ID: 84954116350.
http://www.novapublishers.org/catalog/advanced_search_result.php?keywords=Kachiashvili&x=15&y=11
6. Kachiashvili K.J., Melikdzhanian D.I. and Prangishvili A.I. (2015) *Computing Algorithms for Solutions of Problems in Applied Mathematics and Their Standard Program Realization*. Part 2- Stochastic Mathematics. Nova Science Publishers, Inc., New York, 358 p. (In English) Scopus ID: 84954167503.
http://www.novapublishers.org/catalog/advanced_search_result.php?keywords=Kachiashvili&x=15&y=11
7. Kachiashvili K.J. (2018) *Constrained Bayesian Methods of Hypotheses Testing: A New Philosophy of Hypotheses Testing in Parallel and Sequential Experiments*. Nova Science Publishers, Inc., New York, 361 p. (In English) Scopus ID: 85048844177.
<https://novapublishers.com/shop/constrained-bayesian-methods-of-hypotheses-testing-a-new-philosophy-of-hypotheses-testing-in-parallel-and-sequential-experiments/>
8. Kachiashvili K.J. (2023) *Testing Statistical Hypotheses with Given Reliability*. Cambridge Scholars Publishing, UK, 322 p. (In English) ISBN (10): 1-5275-1063-8, ISBN (13): 978-1-5275-1063-0 <https://www.cambridgescholars.com/product/978-1-5275-1063-0>,
https://books.google.ge/books?id=8VLEEAAAQBAJ&pg=PR4&lpg=PR4&dq=1-5275-1063-8&source=bl&ots=V2iBXnGgcu&sig=ACfU3U1hn-SByna4pGjqy26Px5HL7vhtAQ&hl=en&sa=X&ved=2ahUKEwj74qDbjPD_AhUzQ_EDHbO1De8Q6AF6BAgIEAM#v=onepage&q=1-5275-1063-8&f=false

Published Text-Books

1. Kachiashvili K.J. (2004) *Models of computer-aided management. Statistical models.* Georgian Technical University, Tbilisi, 137 p. (text-book) (In Georgian and Russian)
2. Kachiashvili K.J. and Nurani B. (2013) *Statistical Models and Simulation by SPSS.* Publisher “Alfabeta”, Bandung, Indonesia, 353 p. (text-book) (In English).
3. Kachiashvili K.J. (2013) *Business Process Modeling,* Georgian Technical University, 237 p. (electronic text-book translated and composed on the basis of firm's manual from English) (In Georgian).
http://gtu.ge/elbooks/ims_books.php
4. Kachiashvili K.J. (2021) *Machine learning methods and algorithms (methodical instructions for seminar work).* "IT Consulting Scientific Center" of GTU, Tbilisi, M. Kostava 77 (In Georgian). p. 28.
https://gtu.ge/book/14_kachiashviliMetod_Doct.pdf
5. Kachiashvili K.J. (2024) *Machine Learning.* Publishing House "Technical University", Tbilisi, M. Kostava 77 (In Georgian). 331 p. ISBN 978-9941-512-23-0, CD-7355
<http://www.gtu.ge/>

* - publications directly extracted from the thesis of Candidate of Sciences (PhD);

** - publications directly extracted from the thesis of Doctor of Sciences.

Refereed Journal Publications

2025

1. Kachiashvili, K.J., Kachiashvili, J.K., SenGupta, A. (2025) Solving ANOVA problem with restricted Type I and Type II error rates. *AIMS Mathematics*, 10(2): 2347-2374. **IF 1.8, SJR 0.456 Q2** doi: [10.3934/math.2025109](https://doi.org/10.3934/math.2025109)
2. Kachiashvili K.J., Kachiashvili J.K. and Kvaratskhelia V.V. (2025) Automatic Recognition of Human Psychological State Based on EEG Data. *Contemporary Mathematics*, . **IF 0.6, SJR 0.16 Q4 (0.32?!)**

2024

3. Kachiashvili, K.J., SenGupta, A. (2024) Constrained Bayesian Method for Testing Equi-Correlation Coefficient. *Axioms*, Volume 13, Issue 10, 722, 1-21.
<https://doi.org/10.3390/axioms13100722> **IF 1.9, SJR 0.388**
4. Kachiashvili, K.J., SenGupta, A. (2024) Constrained Bayesian Methods for Union-Intersection and Intersection-Union Hypotheses Testing Problems. *Iran J Sci.* Vol. 48, pages 1579–1594. <https://doi.org/10.1007/s40995-024-01693-x> **IF, SJR 0.27, Q2**
5. Kachiashvili, K. J., Kachiashvili, J. K. and Kvaratskhelia V.V. (2024). Automatic Diagnosis of Lung Diseases (Pneumonia, Cancer) with given Reliabilities on the Basis of an Irradiation Images of Patients. *International Journal of Statistics in Medical Research*, 13, 64-97. DOI: [10.6000/1929-6029.2024.13.07](https://doi.org/10.6000/1929-6029.2024.13.07) **SJR 0.252, Q2**
6. Kachiashvili, K. J., Mukhopadhyay, N., & Kachiashvili, J. K. (2024). Constrained Bayesian method for testing composite hypotheses concerning normal distribution with

equal parameters. *Sequential Analysis*, Vol. 43, [Issue 2](#), Pages 147-178. **IF 0.567, SJR 0.414**

<https://doi.org/10.1080/07474946.2024.2326222>

7. Kartlos Kachiashvili, Joseph Kachiashvili and Ashis SenGupta (2024) Consideration of Directional Hypotheses in Pairs for Making a Decision with Given Reliability. *Bulletin of TICMI*, 28(2), 73-96. **SJR 0.121**

2023

8. Kachiashvili, K., Kvaratskhelia, V., Prangishvili, A. (2023). Comparison of Constrained Bayesian and Classical Methods of Testing Statistical Hypotheses in Sequential Experiments. (Pages 289-306) In: Zgurovsky, M., Pankratova, N. (eds) *System Analysis and Artificial Intelligence. Studies in Computational Intelligence*, vol. 1107. Springer, Cham. https://doi.org/10.1007/978-3-031-37450-0_17, Print ISBN978-3-031-37449-4, Online ISBN978-3-031-37450-0. Indexed by SCOPUS. (Indexed by SCOPUS, DBLP, WTI Frankfurt eG, zbMATH, SCImago. All books published in the series are submitted for consideration in Web of Science.)
<https://link.springer.com/book/10.1007/978-3-031-37450-0>

2022

9. Kachiashvili, K.J. and Kvaratskhelia, V.V. (2022) The Use of Imitation Models at Developing and Introducing Information-Control Systems. *Journal of Software Engineering and Applications*, 15(7), 240-247. doi: [10.4236/jsea.2022.157014](https://doi.org/10.4236/jsea.2022.157014). **Google-based IF 0.99**.
10. Kachiashvili, K. (2022). A Brief Review of Existing Approaches of Statistical Hypotheses Testing. *Academia Letters*, 1-7, Article 5920. <https://doi.org/10.20935/AL5920>

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11. Kachiashvili K.J. (2021) Constrained Bayesian Rules for Testing Statistical Hypotheses. Ed-s B. K. Sinha and S. B. Bagchi, *Strategic Management, Decision Theory, and Decision Science*, Springer Nature book (ISBN 978-981-16-1368-5), 159-176. https://doi.org/10.1007/978-981-16-1368-5_11
12. Kachiashvili K.J. (2021) Existing Approaches and Development Perspectives for Inferences. *International Journal of Statistics in Medical Research*, 10, 63-71. **SJR 0.252, Q2**

2020

13. Kachiashvili K.J. (2020) Information Technologies for Control and Management of Environmental Water Quality. *Acta Scientif Microbiology*, 3(11): 89-94. **IF 1.282**
14. Kachiashvili K.J. and Kachiashvili J.K. (2020) Indexes for Classification of Populations According to the Intensity of Cancer Diseases. *Advances in Cancer Research & Clinical Imagine*, 2(4): 1-6. ACRCI.MS.ID.000543. DOI: 10.33552/ACRCI.2020.02.000543. **CIF 4.341**
<https://irispublishers.com/acrci/pdf/ACRCI.MS.ID.000543.pdf>
15. Kachiashvili K.J., Kachiashvili J.K. and Prangishvili I.A. (2020) CBM for Testing Multiple Hypotheses with Directional Alternatives in Sequential Experiments. *Sequential Analysis*, 39(1): 115-131, DOI: 10.1080/07474946.2020.1727166 **IF 0.567, SJR 0.414**

<https://doi.org/10.1080/07474946.2020.1727166>

2019

16. Kachiashvili K.J. (2019) An Example of Application of CBM to Intersection-Union Hypotheses Testing. *Biomed J Sci & Tech Res*, 19(3): 14345-14346. BJSTR. MS.ID.003304. **IF 1.095**
17. Kachiashvili K.J. (2019) Modern State of Statistical Hypotheses Testing and Perspectives of its Development. *Biostat Biometrics Open Acc J.*; 9(2): 555-759. DOI: 10.19080/BBOAJ.2019.09.55575902 **IF 1.287**
<https://juniperpublishers.com/bboaj/pdf/BBOAJ.MS.ID.555759.pdf>
18. Kachiashvili K.J., Prangishvili I.A. and Kachiashvili J.K. (2019) Constrained Bayesian Methods for Testing Directional Hypotheses Restricted False Discovery Rates. *Biostat Biometrics Open Acc J* 9(3): 1-10. BBOAJ.MS.ID.555761. **IF 1.287**
<https://juniperpublishers.com/bboaj/articleinpress-bboaj.php>

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19. Kachiashvili K.J., Bansal N.K. and Prangishvili I.A. (2018) Constrained Bayesian Method for Testing the Directional Hypotheses. *Journal of Mathematics and System Science*, 8, 96-118. **ISSN:** 2159-5291 (print) 2159-5305 (online), ISSN 2159-5291, doi: 10.17265/2159-5291/2018.04.002 **GIF 0.675**
https://epublications.marquette.edu/math_fac/23/
20. Kachiashvili K.J. (2018) On One Aspect of Constrained Bayesian Method for Testing Directional Hypotheses. *Biomed J Sci & Tech Res*, 2(5): 1-3. ISSN: 2574-1241, DOI: 10.26717/BJSTR.2018.02.000821 **IF 1.095**
21. Kachiashvili K.J. and Melikdzhanian D.I. (2018) Estimators of the Parameters of Beta Distribution, *Sankhya B: The Indian Journal of Statistics*, 81(2), 350-373, <https://doi.org/10.1007/s13571-018-0157-2> **IF 0.85**
22. Kachiashvili K.J. and Prangishvili A.I. (2018) Verification in biometric systems: problems and modern methods of their solution, *Journal of Applied Statistics*, 45(1): 43-62, DOI: 10.1080/02664763.2016.1267122 **IF 1.404**
<http://www.tandfonline.com/loi/cjas20>
23. Kachiashvili K.J. (2018) Systems Analysis of Environmental Water Quality Control and Management and some Appropriate Modern Software, *Ecology, Pollution and Environmental science: Open Access (EEO)*, *SciEnvironm* 1:112, 50-57,
<http://hendun.org/journals/EEO/PDF/EEO-18-1-112.pdf>

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24. Kachiashvili K.J. (2017) EDITORIAL: Some Ways of Resolution of Current Environmental Problems. *MOJ Ecology & Environmental Science* 2(7):288. DOI: [10.15406/mojes.2017.02.00049](https://doi.org/10.15406/mojes.2017.02.00049)
25. Kachiashvili K.J. (2017) The Impact of Applied Agricultural Technologies on the Productivity of Agricultural Lands. *International Journal of Research Studies in Agricultural Sciences (IJRSAS)*, 3(4): 9-21. ISSN 2454-6224, [http://dx.doi.org/10.20431/2454-6224.0304002](https://dx.doi.org/10.20431/2454-6224.0304002), ISSN 2327-3321, **UIF 0.5833**

<https://www.arcjournals.org/ijrsas/volume-3-issue-4/>,
<https://www.arcjournals.org/pdfs/ijrsas/v3-i4/2.pdf>

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26. Kachiashvili K.J. and Melikdzhanian D.I. (2016) Software for Pollutants Transport in Rivers and for Identification of Excessive Pollution Sources. *MOJ Ecology & Environmental Science*, 1(1): 1-8. DOI: 10.15406/mojes.2016.01.00006
<http://medcraveonline.com/MOJES/current-issue>
27. Kachiashvili K.J. (2016) Constrained Bayesian Method of Composite Hypotheses Testing: Singularities and Capabilities. *International Journal of Statistics in Medical Research*, 5(3): 135-167. **SJR 0.252, Q2**
28. Kachiashvili K.J. (2016) EDITORIAL: Inference in Clinical Experiments. *International Journal of Statistics in Medical Research*, 5(3): 133-134. Available at:
<http://www.lifescienceglobal.com/journals/international-journal-of-statistics-in-medical-research/volume-5-number-3> **SJR 0.252, Q2**
29. Kachiashvili K.J. and Topchishvili A.L. (2016) Estimators of the Parameters of Irregular Right-Angled Triangular Distribution. *Model Assisted Statistics and Applications*, 11: 179-184. ISSN 574-1699 (print), 1875-9068 (online), DOI 10.3233/MAS-150362 **Impact Score 0.8, SJR 0.368**

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30. Kachiashvili K.J. and Melikdzhanian D.I. (2015) Software for statistical hypotheses testing. *International Journal of Modern Sciences and Engineering Technology (IJMSET)*, 2(4): 33-52. ISSN 2349-3755; Available at: <https://www.ijmset.com/current-issue.html>
31. Kachiashvili K.J. (2015) Constrained Bayesian Method for Testing Multiple Hypotheses in Sequential Experiments. *Sequential Analysis: Design Methods and Applications*, 34(2): 171-186. DOI: 10.1080/07474946.2015.1030973 **IF 0.567, SJR 0.414**

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32. Kachiashvili K.J. (2014) Comparison of Some Methods of Testing Statistical Hypotheses. Part I. Parallel Methods. *International Journal of Statistics in Medical Research*, 3: 174-189. **SJR 0.252, Q2**
33. Kachiashvili K.J. (2014) Comparison of Some Methods of Testing Statistical Hypotheses. Part II. Sequential Methods. *International Journal of Statistics in Medical Research*, 3: 189-197. **SJR 0.252, Q2**
34. Kachiashvili K.J. (2014) The Methods of Sequential Analysis of Bayesian Type for the Multiple Testing Problem. *Sequential Analysis*, 33(1): 23-38. DOI: 10.1080/07474946.2013.843318 **IF 0.567, SJR 0.414**
35. Kachiashvili K.J. (2014) Investigation of the method of sequential analysis of Bayesian type. *Journal of Advances in Mathematics*. 18(1): 1367-1380.
<https://doi.org/10.24297/jam.v7i3.7261>,
<https://rajpub.com/index.php/jam/article/view/7261>

36. Kachiashvili K.J. (2014) Probability of errors in sequential methods of Bayesian type. *Reports of Enlarged Session of the Seminar of I. Vekua Institute of Applied Mathematics*, 28: 58-61.

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37. Kachiashvili K.J. and Mueed A. (2013) Conditional Bayesian Task of Testing Many Hypotheses. *Statistics: A Journal of Theoretical and Applied Statistics*, 47(2): 274-293. **IF 1.051**
<http://dx.doi.org/10.1080/02331888.2011.602681>
38. Kachiashvili K.J. (2013) Investigation of constrained Bayesian methods of hypotheses testing with respect to classical methods. Proceeding of IndoMS International Conference of Mathematics and Its Applications (IICMA 2013), 4-8.
https://www.researchgate.net/profile/Samsul-Arifin-2/publication/319502474_DESIGNING_ADDITION_OPERATION_LEARNING_IN_THE_MATHEMATICS_OF_GASING_FOR_RURAL_AREA_STUDENT_IN_INDONESIA/links/5d4b8b5592851cd046ab08c3/DESIGNING-ADDITION-OPERATION-LEARNING-IN-THE-MATHEMATICS-OF-GASING-FOR-RURAL-AREA-STUDENT-IN-INDONESIA.pdf#page=17

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39. Kachiashvili K.J., Hashmi M.A. and Mueed A. (2012) Quasi-optimal Bayesian procedures of many hypotheses testing. *Journal of Applied Statistics*, 40(1): 103–122. **IF 1.404, SJR 0.55 Q2** <http://dx.doi.org/10.1080/02664763.2012.734797>
40. Kachiashvili G.K., Kachiashvili K.J. and Mueed A. (2012) Specific Features of Regions of Acceptance of Hypotheses in Conditional Bayesian Problems of Statistical Hypotheses Testing. *Sankhya: The Indian Journal of Statistics*, 74(1): 112-125. **IF 0.85, SJR 0.122 Q4**
[DOI 10.1007/s13171-012-0014-8](https://doi.org/10.1007/s13171-012-0014-8)
41. Kachiashvili K.J., Hashmi M. A. and Mueed A. (2012) Sensitivity Analysis of Classical and Conditional Bayesian Problems of Many Hypotheses Testing. *Communications in Statistics—Theory and Methods*, 41(4): 591–605. **IF 0.893, SJR 0.45 Q3**
<http://dx.doi.org/10.1080/03610926.2010.510255>
42. Kachiashvili K.J. and Hashmi M.A. (2012) Computation of the Multivariate Normal Integral over a Complex Subspace. *Applied Mathematics*, 3(5): 489-498. **IF 0.61, SJR 0.31 Q3**
doi:10.4236/am.2012.35074, <http://www.SciRP.org/journal/am>
43. Kachiashvili K.J., Hashmi M. A. and Mueed A. (2012) The Statistical Risk Analysis as the Basis of the Sustainable Development. *Int. J. of Innovation and Technol. Management* (World Scientific Publishing Company), 9(3): 1-10. DOI: 10.1142/S0219877012500241 **IF 1.8, SJR 0.395**
44. Kachiashvili, K.J., Melikdzhanjan, D.I. (2012). Program Package for Decision Making. In: Khachidze, V., Wang, T., Siddiqui, S., Liu, V., Cappuccio, S., Lim, A. (eds) Contemporary Research on E-business Technology and Strategy. iCETS 2012. Communications in Computer and Information Science, vol 332. Springer, Berlin, Heidelberg, 530–540.
https://doi.org/10.1007/978-3-642-34447-3_47

45. Kachiashvili K.J. (2012) Comparison Analysis of the Wald's and the Bayes Type Sequential Methods for Testing Hypotheses. *International Journal of Mathematical and Computational Sciences*, Vol:6, No:10, 1432-1436. **Universal IF**

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46. Kachiashvili K.J. (2011) Investigation and Computation of Unconditional and Conditional Bayesian Problems of Hypothesis Testing. *ARNP Journal of Systems and Software*, 1(2): 47-59. <https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=99588d9cc15c06f1245b4fd0005381c2ae0bcd2d>
47. Kachiashvili K.J. and Melikdzhanian D.I. (2011) Modern Software for the Environmental Modeling and Statistical Data Analysis. *Procedia Computer Science*, WCIT-2010, 3: 439-443. **SJR 0.569** www.elsevier.com/locate/procedia
<https://www.sciencedirect.com/journal/procedia-computer-science/vol/3/suppl/C>
48. Kachiashvili K.J., Hashmi M. A. and Mueed A. (2011) Comparison Analysis of Unconditional and Conditional Bayesian Problems of Testing Many Hypotheses. *Transactions. "Automated Control Systems"*. Georgian Technical University, 1(10): 89-100.

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49. Kachiashvili K.J. and Melikdzhanian D.I. (2010) SDpro – The Software Package for Statistical Processing of Experimental Information. *International Journal Information Technology & Decision Making (IJITDM)*, 9(1): 115-144. **IF 2.22**
DOI: [10.1142/S0219622010003634](https://doi.org/10.1142/S0219622010003634)
50. Kachiashvili K.J. and Hashmi M.A. (2010) About Using Sequential Analysis Approach for Testing Many Hypotheses. *Bulletin of the Georgian Academy of Sciences*, 4(2): 20-25. ISSN 1321447, **Impact Score 0.27, SJR 0.19**

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51. Kachiashvili K.J. and Melikdzhanian D.I. (2009) Software for Determination of Biological Age. *International Journal Current Bioinformatics*, 4(1): 41-47. **IF 3.543**
52. Kachiashvili K.J. and Melikdzhanian D.I. (2009) Software Realization Problems of Mathematical Models of Pollutants Transport in Rivers. *International Journal Advances in Engineering Software*, 40: 1063-1073. **IF 4.141**
53. Kachiashvili K.J., Hashmi M. A. and Mueed A. (2009) Bayesian Methods of Statistical Hypothesis Testing for Solving Different Problems of Human Activity. *Applied Mathematics and Informatics (AMIM)*, 14(2): 3-17.
54. Kachiashvili K.J. and Hashmi M.A. (2009) On Analytical Finding Probability Distribution Law of Linear Combination of Exponent of Quadratic Forms of Normally Distributed Random Vectors. *Proceedings of 4th World Conference on 21st Century Mathematics*, March 4-8, 2009, Lahore, Pakistan, 96-105.
55. Kachiashvili K.J. and Mueed A. (2009) The Problem of Choosing Losses Function in Bayesian Problem of Many Hypotheses Testing and Opportunities of Their Overcoming. *Proceedings of 4th World Conference on 21st Century Mathematics*, March 4-8, 2009, Lahore, Pakistan, 176-194.

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56. Kachiashvili K.J., Hashmi M. A. and Mueed A. (2008) The statistical risk analysis as the basis of the sustainable development. *Proceedings of the 4th IEEE International Conference on Management of Innovation & Technology (ICMIT2008)*, Bangkok, Thailand, 1210-1215. **SJR 0.113**
57. Kachiashvili K.J. and Nurani B.R. (2008) Prediction of Oil Production using Non Linear Regression by SDPro Software (Special Program Package). *Proceedings of the 3rd International Conference on Mathematics and Statistics (ICoMS 2008)*, IPB Bogor, Indonesia, 1038-1045.

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58. Kachiashvili K.J., Gordeziani D.G., Lazarov R.G. and Melikdzhanian D.I. (2007) Modeling and simulation of pollutants transport in rivers. *International Journal of Applied Mathematical Modelling (AMM)*, 31: 1371-1396. **IF 5.129**
59. Kachiashvili K.J. and Meparishvili B. (2007) Computer Base of medical-sociological data of old citizens of Georgia. *Proceedings of Georgian Technical University: computer-aided management systems*, 1(2), Tbilisi, 181-184.
60. Kachiashvili K.J., Kutsiava N. and Tsintsadze G. (2007) Dependence of air pollution level on the frequency of refusals of the technological process of ammonia. *Georgian Engineering News*, 2, 69-72.
61. Kachiashvili K.J., Kutsiava N. and Tsintsadze G. (2007) Identification of dependence among some ingredients of air pollution. *Georgian Engineering News*, 2, 66-68.

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62. Kachiashvili K.J. and Melikdzhanian D.I. (2006) Identification of River Water Excessive Pollution Sources. *International Journal of Information Technology & Decision Making*, World Scientific Publishing Company, 5(2): 397-417. **IF 2.5, SJR 0.723 Q1** DOI: [10.1142/S0219622006001988](https://doi.org/10.1142/S0219622006001988)
https://www.researchgate.net/publication/23751154_Identification_of_river_water_excessive_pollution_sources
63. Kachiashvili K.J. and Melikdzhanian D.I. (2006) Parameter optimization algorithms of difference calculation schemes for improving the solution accuracy of diffusion equations describing the pollutants transport in rivers. *International Journal Applied Mathematics and Computation*, 183: 787-803. **IF 4.091** Doi:10.1016/j.amc2006.06.027
64. Kachiashvili K.J., Gordeziani D.G., Melikdzhanian D. I. and Nakani D.V. (2006) River pollution components mean annual values estimation by computer modeling. *Applied Mathematics and Informatics (AMIM)*, 11(1): 20-30.
<http://www.viam.hepi.edu.ge/Ami/Issues.htm>
65. Kachiashvili K.J., Nakani D.V. and Khutchua V.I. (2006) Investigation of significant change in time and space of nitrates and phosphates contents in farmer field soils. *Proceedings of Georgian Technical University: computer-aided management systems*, 1: 26-31.
66. Dasenakis M., Botsou F., Paraskevopoulou V., Chikviladze C. and Kachiashvili, K.J. (2006) Transport of pollutants in two estuarine systems on the coast of Georgia. *Chemistry and Ecology*, 22(5): 379-393. **Publisher: Taylor and Francis Ltd.**

<http://www.ingentaconnect.com/content/tandf/gche/2006/00000022/00000005/art00003#expand/collapse>, <https://doi.org/10.1080/02757540600917609>, **IF 2.244, SJR 0.46 Q2**

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68. Kachiashvili K.J. and Nakani D.V. (2005) Research of dependences of agricultural cultures harvests and their ecological quality from contents in soil of different forms of nitrates, phosphates and potassium. *Proceedings of the 2nd International Congress "SUSTAINABLE MANAGEMENT IN ACTION", SMIA 05*, University of Geneva, UNIMAIL, 103-107. <http://www.smia.info/en-page.14.5.html>
69. Kachiashvili K.J. and Melikdzhanian D.I. (2005) Restoration of some nonlinear functional dependences with the help of the generalized technique of identification. *Applied Mathematics and Informatics (AMIM)*, 10(1): 53-89. http://www.viam.hepi.edu.ge/Ami/2005_2/kachiashvili1.pdf
70. Kachiashvili K.J. and Melikdzhanian D.I. (2005) Methods of interpolation of the definite class of non-linear functions with practical examples. *Applied Mathematics and Informatics (AMIM)*, 10(2): 37-52. http://www.viam.hepi.edu.ge/Ami/2005_2/kachiashvili2.pdf
71. Kachiashvili K.J. and Melikdzhanian D.I. (2005) The optimization problems of algorithms connected with different calculation schemes of difference equations. *Proceedings of the NATO Advanced Research Workshop on Air, Water and Soil Quality Modeling for Risk and Impact Assessment*, Tabakhmela, Georgia, Springer, 327-337. <https://searchworks.stanford.edu/view/12484494>

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1. Kachiashvili K.J., Kachiashvili J.K. and Kvaratskhelia V.V. (2025) Automatic recognition of human psychological state on the basis of EEG-based data. The Sixth IEEE International Image Processing, Applications and Systems Conference (IPAS’6), 9-11 January 2025, Lyon, France. Conference Program Booklet p. 23.

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2. Kachiashvili K.J., Kachiashvili J.K. and Kvaratskhelia V.V. (2024) Imitation Models of the Pollutants Transport in the Environmental Water Objects. The International Conference on Applied Science and Engineering (ASEFORUM2024), March 04-06, 2024, Florence, Italy.
3. Kachiashvili K.J. (2024) Comparison of Constrained Bayesian and Classical Methods of Testing Statistical Hypotheses in Sequential Experiments. XXXVIII International Enlarged Sessions of the Seminar of Ilia Vekua Institute of Applied Mathematics of Ivane Javakhisvili Tbilisi State University, Tbilisi, Georgia, April 22-24, 2024, p. 45.
4. Kachiashvili K.J., Kachiashvili J.K. and Kvaratskhelia V.V. (2024) Artificial intelligence methods for testing human psychological state. The International Workshop on Data Analytics and Mathematical Modeling, 26-28 of June, 2024, Tbilisi, Georgia.
5. Kachiashvili K.J., Kachiashvili J.K. and Kvaratskhelia V.V. (2024) Artificial intelligence methods for recognizing human emotion. 10th Global Webinar on Applied Science, Engineering and Technology, July 03-04, 2024, USA-India.
6. Kachiashvili K.J., Kvaratskhelia V.V. (2024) Mathematical Models for Solving Environmental Water Objects Pollution Problems and their software realization. XV

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7. Kachiashvili K.J., Kachiashvili J.K. and A. SenGupta (2024) Quasi-optimal Rule of Testing Directional Hypotheses and Its Application to Big Data. XIV International Conference of the Georgian Mathematical Union Dedicated to the 100th Anniversary of the Georgian Mathematical Union. Batumi, September 2-7, p. 106, 2024.
8. Kachiashvili K.J., Kachiashvili J.K. and Kvaratskhelia V.V. Artificial Intelligence Method for Lung Diseases (Pneumonia, Cancer) Diagnosis with given Reliabilities. The Tenth International Conference on Statistics for the Twenty-First Century – ICSTC-2024, December 15-16, Trivandrum, India.

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9. Kachiashvili K.J. (2023) Quasi-optimal Rule of Testing Directional Hypotheses. XXXVII International Enlarged Sessions of the Seminar of Ilia Vekua Institute of Applied Mathematics of Ivane Javakhisvili Tbilisi State University, Tbilisi, Georgia, 19-22 April, 2023. pp. 42-43.
10. Kachiashvili K.J. and SenGupta A. (2023) Constrained Bayesian Methods for Testing Union-Intersection and Intersection-Union Hypotheses. The International Level Webinar "Recent Trends in Statistical Theory and Applications (WSTA 2023)" in connection with "National Statistics Day Celebrations 2023", 29 June - 02 July, 2023, Trivandrum, India.
Organised by Department of Statistics School of Physical and Mathematical Sciences University of Kerala Trivandrum, India in association with Indian Society for Probability and Statistics (ISPS) and Kerala Statistical Association (KSA).
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15. Kachiashvili K.J. and SenGupta A. Testing Hypotheses concerning Equi-Correlation Coefficient of a Standard Symmetric Multivariate Normal Distribution. International Conference "Ninth International Conference on Statistics for Twenty-first Century – 2023 [ICSTC-2023]", 15-18 December 2023, Trivandrum, India.

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