სამეცნიერო კვლევები ბიზნესის ადმინისტრირების დარგში

გამოქვეყნებული სტატიების სია:

2006

1. M. Mania, R. Tevzadze, An Exponential Martingale Equation, Electronic Communications in Probability, 11, (2006), 206–216

2. M. Mania, R. Tevzadze, An exponential martingale equation, From Stochastic Calculus to Mathematical Finance, The Shiryaev Festschrift, Springer, (2006), pp.507-516

3. Z. Tsigroshvili, On infinitely divisible integer-valued random variables, Georgian Mathematical Journal, (2006).

2007

4. T. Kavtaradze, N. Lazrieva, M. Mania and P. Muliere, A Bayesian-martingale approach to the general disorder problem, Stochastic Processes and their Applications, 117 (2007), pp. 1093-1120

2008

5. Lezhava T., Tsigroshvili, Z., Dvalishvili N., Jokhadze T. (2008). Mathematical model for satellite associations of human acrocenttric chromosomes. Georgian Med News, 2008 Nov (164): 90-9.

6. M. Mania, R. Tevzadze, Backward stochastic partial differential equations related to utility maximization and hedging, Journal of Mathematical Sciences, Vol. 153, No. 3, (2008), pp. 292-376

7. M. Mania, R. Tevzadze, T. Toronjadze, Mean-variance Hedging Under Partial Information, SIAM Journal on Control and Optimization, Vol. 47, N. 5, (2008) , pp. 2381-2409

8. N. Lazrieva, T. Sharia, T. Toronjadze, Semimartingae Stochastic approximation procedure and recursive estimation, Journal of Mathematical Sciences, Vol. 153, No. 3, 2008, 211-261, 2008

9. N. Lazrieva, T. Toronjadze, Optimal Robust Mean-Variance Hedging in Incomplete Financial Markets, Journal of Mathematical Sciences, Vol. 153, No. 3, 2008, 262-290, 2008

10. N. Lazrieva, T. Toronjadze, Semimartingale stochastic approximation procedure and recursive estimation, J. Math. Sci. 153 (2008), No.3, 211-259.

11. R. Tevzadze, Solvability of Backward Stochastic Differential Equation with Quadratic Growth, Stochastic Processes and their Applications, vol. 118, №3, (2008), 503-515.

2009

12. Tsigroshvili Z.P. (2009). On Copula functions for discrete random variables. (submitted in Proc. Of A.RazmadzeMath.Institute).

13. Tsigroshvili Z.P. (2009). Modeling Dependent Counting Variables with Applications to Credit and Operational Risks. (submitted in Georgian Mathematical Journal).

14. M. Mania, M. Santacroce, Exponential hedging under partial information, accepted in “Finance and Stochastics” (DOI:10.100780-009-0114-z), 2009

15. M. Mania, R. Tevzadze, T. Toronjadze, L2-approximating pricing under restricted information, published in “Applied Mathematics and Optimization” (2009). DOI:10.1007/s00245-009-9067-z, 2009

16. N. Lazrieva, T. Toronjadze, “The Robbins–Monro Type Stochastic Differential Equation III.Polyak’sAveraging”, “Stochastics An International Journal of Probability and Stochastic Processes”, Rep. 105 (2009), No. 4, 115-135

17. Tsigroshvili, Z., Toronjadze, T. Chincharauli, Z. Makharadze, G. (2009). Generalized Panjer’s Type Recursion, published in Georgian Mathematical Journal

18. M. Mania, M. Santacroce, R. Tevzadze, A semimartingale BSDE related to the minimal entropy martingale measure, Handbook of Quantitative Finance and Risk Management,Springer, 2009

2010

19. N. Lazrieva and T. Toronjadze, “The Robbins–Monro Type Stochastic Differential Equation III. Polyak’s Averaging”, Stochastics: An International Journal of Probability and Stochastic Processes,v.82,issue 2,p.165-188 2010.

20. N. Lazrieva and T. Toronjadze, Recursive Parameter Estimation in the Trend Coefficient of a Diffusion Process, Georgian Math. Journal, Vol. 17, N 4, 2010, pp. 683-705.

21. M. Mania and R. Tevzadze, Backward stochastic PDEs related to utility maximization problem, Georgian Math. J. Vol., Georgian Math. Journal, Vol. 17, N 4, (2010) , pp. 705- 741.

22. M. Mania and M. Santacroce, Exponential hedging under partial information, “Finance and Stochastics”, Vol. 14, N. 3, (2010), pp. 419-448.

23. M. Mania, R. Tevzadze and T. Toronjadze , Mean-Variance Hedging Under Partial Information, Stochastic Control, Chris Myers (Ed.), Publisher: Sciyo, (2010), Chapter 28, pp. 581-609.

24. M. Mania, M. Jeanblanc, M. Santacroce and M. Schweizer, Mean-Variance Hedging via Stochastic Control and BSDEs for General Semimartingales, National Centre of Competence in Research Financial Valuation and Risk Management Working Paper No. 675 Accepted in “Annals of Applied Probability”, 2010

2011

25. R. Tevzadze and T. Uzunashvili, Robust mean-variance hedging in the two period model. Reports of Enlarged Session of the Seminar of I. Vekua Institute of Applied Mathematics, Vol. 24, (2011), 126-130.

2012

26. T. Tsabadze, One Way of Aggregation Experts’ Fuzzy Estimations under Group Decision Making, 3rd International Conference of Applied Informatics and Computing Theory (AICT’12), Barcelona, Spain. 2012.

27. R. Tevzadze, T. Uzunashvili, Robust mean-variance hedging and pricing of contingent claims in a one period model, International Journal of Theoretical and Applied Finance, 15, 3, (2012), 9p.

28. R. Tevzadze, Robust mean variance hedging in the single period model, Reports of the seminar of I.Vekua Institute of Applied Mathematics, v.25. (2012), 4p.

29. M. Mania and B. Chikvinidze, On the Girsanov transformation of BMO martingales, Reports of Enlarged Session of the Seminar of I. Vekua Institute of Applied Mathematics, Volume 26, (2012), pp. 119-114

30. M. Mania, M. Jeanblanc , M. Santacroce and M. Schweizer, Mean-variance hedging via stochastic control and BSDEs for general semimartingales, Annals of Applied Probability, Vol. 22, No. 6, (2012), pp. 2388-2428

2013

31. R. Tevzadze, T. Toronjadze and T. Uzunashvili, Robust utility maximization for diffusion market model with misspecified coefficients, Finance and Stochastics, 17, 3, (2013), 535-563.

32. T. Tsabadze, Solution of Some Management Problems by Means of Fuzzy Sets Theory, 7th WSEAS International Conference Business Administration (ICBA’13), Milan, Italy, 2013.

33. T. Tsabadze, An Approach for Aggregation of Experts’ Qualitative Evaluations by Means of Fuzzy Sets, 2013 IFSA World Congress NAFIPS Annual Meeting, Edmonton, Canada, 2013.

34. M. Mania and B. Chikvinidze, New proofs of some results on BMO martingales using BSDEs, to appear in Journal of Theoretical Probability, DOI: 10.1007/s10959-013-0524-x, 2013.

35. D. Aslamazishvili, Manus Symbolicus as a New Generation in Symbolic Management, Applied Sciences and Technologies in the US and Europe: common challenges and scientific findings, proceedings of the 2nd International scientific conference, Cubinet Publishing, New York, USA, 2013, in print.

36. D. Aslamazishvili, Символическое поле в менеджменте современной организации (Symbolic field within contemporary organization), Applied Sciences in Europe: tendencies of contemporary development, proceedings of the 3rd International scientific conference. ORT Publishing Stuttgart, 2013, in print.

37. M. Mania and R. Tevzadze, On the properties of the dynamic value functions in the problem of optimal investing in incomplete markets, submitted to Georgian Mathematical Journal, 2013.

2014

38. N. Lazrieva and T. Toronjadze, Recursive estimation procedures of one-dimensional parameter for statistical models associated with semimartingales submitted to Georgian Mathematical Journal, 2014.

39. M. Mania and B. Chikvinidze, New proofs of some results on bounded mean oscillation martingales using backward stochastic differential equations, Journal of Theoretical Probabability, Springer, Vol. 27, N. 4, 2014, pp 1213-1228.

40. M. Mania and R. Tevzadze, On the properties of the dynamic value functions in the problem of optimal investing in incomplete markets, "Georgian Mathematical Journal" , Vol. 22, N 1, 2015.

41. L. Gachechiladze and I. Chelidze, Investment Project Valuation with Real Options and Games Theory, Economics and Banking, NBG, Vol. 1, N3, 2014, pp 29-42.

42. G. Pertaia, S. Ghudushauri and N. Toronjadze, FX Portfolio Risk Management, Economics and Banking, NBG, Vol. 2, N1, 2014, pp 41-50.

43. T. Tsabadze, A method for aggregation of trapezoidal fuzzy estimates under group decision-making, Fuzzy Sets and Systems, 2014.

2015

44. M. Mania and R. Tevzadze, On the properties of dynamic value functions in the problem of optimal investment in incomplete market, Georgian Mathematical Journal. Vol. 22, Issue 1, (2015), 111-130.

45. M. Mania and R. Tevzadze, On regularity of dynamic value function related to the utility maximi-zation problem, Proceedings of A. Razmadze Mathematical Institute V. 168, (2015), pp. 63–77

46. M. Mania and R. Tevzadze, The relation between the basic and conditional utility optimization problems, Proceedings of I. Vekua Institute of Applied Mathematics, Vol. 65. (2015), 8 pages.

47. T. Tsabadze, A method for aggregation of trapezoidal fuzzy estimates under group decision-making J. Fuzzy Sets and Systems, Volume 266, 2015, Elsevier pp 114–130

48. T. Tsabadze, A. Frangishvili, T. Tsamalashvili., Application of Fuzzy Sets in Solving Some Management Problems. Part 1, Journal of Mathematical Sciences, Volume 208, Issue 6, 2015, Springer International Publishing AG, pp 661-

676

49. T. Tsabadze, A. Frangishvili, T. Tsamalashvili., Application of Fuzzy Sets in Solving Some Management Problems. Part 2, Journal of Mathematical Sciences, Volume 208, Issue 6, 2015, Springer International Publishing AG, pp 677-

692

2016

50. N. Lazrieva and T. Toronjadze, Recursive estimation procedure for one dimensional parameters of statistical models associated with semimartingal, Transactions of A. Razmadze Math Institute, Vol. 1, 2017, pp. 57-75

51. M. Mania and R. Tevzadze, On regularity of primal and dual dynamic value functions related to investment problem and their representations as BSPDE solutions, Accepted in SIAM journal of Financial Mathematics

52. Levan Borchkhadze, A funded pension for Georgia, SEER Journal for Labour and Social Affairs in Eastern Europe, SEER, Jahrgang 19 (2016), pp 119 – 134

53. I. Chelidze and T. Tsabadze, Credit risk assessment using fuzzy sets, Economics and Banking, NBG, Vol. 3, N3, 2016, pp 45-56

54. I. Chelidze and T. Tsabadze, Credit risk assessment using fuzzy sets, Business Engineering, GTU, N1-2, 2016, pp 164-168

55. M. Beradze and G. Chinchaladze, Estimating exposure at default using copula functions, Economics and Banking, NBG, Vol. 4, N1, 2016, pp 35-43

სამეცნიერო პროექტები:

1. T. Toronjadze, Forecasting the GEL/USD exchange rates to create forward contracts for both speculative and hedging purposes. (The research program for *** local bank),2006.

2. T. Toronjadze, Valuation of embedded option in bank interest rate sensitivity analysis. (The research program for *** local bank), 2007.

3. T. Toronjadze, Z. Tsigroshvili, Multiple regression analysis and its application to measure bank's financial risk (The research program for *** local bank), 2007.

4. T. Toronjadze, Z. Tsigroshvili, Creation of models for credit risk management. (The research program for *** local bank), 2008.

5. Z. Tsigroshvili, Management of a pension fund under mortality and financial risks using Copula analysis, 2008.

6. Z. Tsigroshvili, Operational Risk Management, (The research program for *** local bank), 2008

7. Z. Tsigroshvili, Risk Management, (The research program for *** local insurance company), 2009

8. K.Kvedelidze, T.Toronjadze, Z.Tsigroshvili (Central Bank problems. Copula Analysis). 2010

9. L.Verdzeuli, Z.Tsigroshvili (Credit Risk Modeling), 2010

10. N. Gozalishvili, L. Pertakhia, Z.Tsigroshvili (Analysis of Insurance Portfolio and Optimal Reinsurance.), 2010

11. I.Chelidze, L.Gachechiladze, T.Toronjadze, T.Uzunashvili (Real Option Analysis and Games Theory Application in Hospitality Business), 2010

12. M.Menabde, Z.Tsigroshvili (Actuarial Methods for Financial Analysis), 2011

13. N. Geguchadze, T.Toronjadze, Z.Tsigroshvili (Applications for Copula Functions for Analysis and Management of Commercial Banks Risks), 2011

14. B.Sulaberidze, Z.Tsigroshvili (Applications of Modern Statistical Methods for Selection of Front-office Workers of Service-type Companies.

საერთაშორისო ურთიერთობები:
სამეცნიერო ვიზიტები (საზღვარგარეთ):

1. Conference on Stochastic Analysis, Amsterdam, Netherlands, January 12-15, 2007; M. Mania Title of the talk: Hedging derivatives under partial information

2. Workshop on Stochastic equations and related topics, Jena, Germany, July 23-29, 2006; M. Mania Title of the talk: Backward stochastic PDEs related to utility maximization problem

3. Conference on Backward Equations, Paris, September 21-22, 2005; R. Tevzadze, Title of the talk: Minimization of a hedging error and related BSDEs.

4. Working visit - T. Toronjadze – Kogod Business School, American University. November 2006.

5. N. Lazrieva - Invitation to be the member of PhD committee (reading/opposition) ShotaGugushvili February, 29, Amsterdam

6. M.Mania - The talk on the seminar in EVRY University: Utility maximization and hedging under partial Information, The talk on the seminar in EcolPolitechnique: An exponential martingale equation. September – October, 2009, Paris (France)

7. M. Mania - The talk on the seminar in ETH University: Mean-Variance Hedging with a quasi-continuous Process and Related BSDEs, 2009, September 7-14, Zurich (Swiss)

8. M. Mania - 5th Colloquium on Backward Stochastic Differential Equations, Finance and Applications. The title of the talk: Mean-Variance Hedging under Partial information and Related BSDEs, http://www.unilemans.fr/7Eapopier/colloque/index.html, 2008, June 18 - 20, Le Mans(France)

9. M. Mania - Convegno PRIN, METODI STOCASTICI IN FINANZA,Title of the talk: L2 Approximate pricing under restricted information, http://calvino.polito.it/~probstat/PRIN/programma.html, 2008, July 3-5, Torino (Italy)

10. T. Toronjadze, N. Lazrieva - 2008 Barcelona Conference on Asymptotic Statistics September 1 to 5, 2008, "The Robbins-Monro Type Stochastic Differential Equations", 2008, Barcelona

11. M.Mania - Humboldt State University, Berlin, 2010, invited professor, "Backward stochastic PDEs related to utility maximization and hedging".

12. T.Toronjadze, T.Uzunashvili – College of Ozarks, MO, USA, 2011, invited professors, "Copula Analysis", "Real Options".

13. D. Aslamazishvili, E. Nadareishvili – College of Ozarks, MO, USA, 2012, invited professors, Some Problems of Management and Marketing.

14. T. Tsabadze – 3rd International Conference of Applied Informatics and Computing Theory (AICT'12), One Way of Aggregation Experts' Fuzzy Estimations under Group Decision Making, Barcelona, Spain, 2012.

15. M. Mania - University of Warwick, England, 16-20 July, EPSRC Workshop – Optimal stopping, optimal control and finance. The title of the talk: Semimartingale Backward Equations and an Optimal Equivalent Change of Measure, 2012.

16. M. Mania, September 7- 12, Yerevan, Conference on Stochastic and PDE Methods in Financial Mathematics, The title of the talk: Utility Maximization and Hedging in Incomplete Markets and related Backward Stochastic PDEs, 2012

17. T. Tsabadze - 7th WSEAS International Conference Business Administration (ICBA'13), Solution of Some Management Problems by Means of Fuzzy Sets Theory, Milan, Italy, 2013.

18. T. Tsabadze – journal AIS: Advances in Information Sciences co-editor, 2013.

19. M. Mania and R. Tevzadze, March 13- 27 , 2014 , ETH Zurich , Switzerland , Seminar in Financial and Insurance Mathematics, The title of the talk: On the properties of the dynamic value functions in the problem of optimal investing in incomplete markets.

20. T. Tsabadze, April 2-4, 2014, Prague, Czech Republic, AMCME 2014, The 2014 International Conference on Applied Mathematics and Computational Methods in Engineering

21. M. Mania, The Workshop: Stochastic Analysis, Control Dynamical Systems and Applications. Jena, Germany, March 9-13, 2015. The title of the talk: On the properities of dynamic value functions in the problem of optimal investment in incomplete markets (based on common works with R. Tevzadze),

22. M. Mania, International conference on probability theory and statistics, September 7-12, 2015,Tbilisi, Georgia. The title of the talk: On regularity of dynamic value function related to the utility maximization problem (based on common works with R. Tevzadze)

23. T. Tsabadze, N. Geguchadze, One approach to decision-making in management under uncertainty. Proceedings of the 16th International Conference on Mathematics and Computers in Business and Economics (MCBE' 15), pp 53-61,Turkey, 2015, May.

24. T. Tsabadze, One approach for Aggregation of Experts' Fuzzy Opinions. Proceedings of the 16th International Conference on Fuzzy Systems (FS' 15), pp 40-47, Rome, Italy. 2015, November

სამეცნიერო ვიზიტები GAU–ში:

1. Marina Santacroce, Politechnico de Tourina. Exponential hedging in incomplete markets. November, 2007.

2. Enzo Orsingher, University of Rome "La Sapienza". On the Solutions of Linear Odd-Order Heat-Type Equations with Random Initial Conditions, September, 2007.

3. Volf Frishling, - Australian National Bank: Quantitative Analysis of Financial Markets, November, 2007

4. Estate Khmaladze–Wellington University, New Zealand. Applied Statistics and Stochastic Geometry, October – November 2007.

5. Irakli Zakariadze – College of Ozarks, MO, USA, International Management, 2011

6. Irakli Zakariadze – College of Ozarks, MO, USA, International Management, 2012

7. Gary Hiebsch – College of Ozarks, MO, USA, Professor of Communication Arts (1995) and Chairman, Business and Communication Division, Business Communications, 2012.

8. Scientific Conference, part of Tbilisi Scientific Fest. Business Computer Modeling. Speakers: I. Chelidze, N. Balavadze, N. Geguchadze, L. Gachechiladze, B. Gogichashvili, L. Borchkhadze, T. Kutalia, D. Shiolashvili, L. Verdzeuli, November, 2015

9. International Conference, Economic challenges of South and Eastern European Countries, Guide for Georgia, Chief of organizing committee: Prof. T. Toronjadze, Speakers: Bruno S. Sergi, Prof. D.sc. (Econ.) Krastyo Petkov, Levan Borchkhadze (GAU Business School), David Shiolashvili and Rati Anjaparidze (GAU Business School) November 30 – December 2, 2015

სამეცნიერო გრანტები:

1. Director: T. Toronjadze – GNSF (Georgia National Science Foundation),Martingale methods of optimal control

and statistics in mathematical finance, 2008-2009.

2. Director M. Mania – ICER(International Centre for Economic Research), Optimization Problems on Incomplete Financial Markets. Martingale Approach, 2007-2008.

3. Director: M. Mania – GNSF (Georgia National Science Foundation), Optimal investing and hedging under restricted information and model uncertainty, 2010-2012.

4. Director: M. Mania – GNSF (Georgia National Science Foundation), Optimal investing and hedging under restricted information and model uncertainty, 2013-2014.

შემუშავებული სახელმძღვანელოები:

1. Essentials Of Business Administration, 2014
2. Computational Business Administration, 2014
3. Essentials Of Quantitative Finance, 2014