# Curriculum Vitae

Zaza  Khechinashvili

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## Education

Ivane Javakhishvili Tbilisi State University 1987-1992, Diplome N. U 000007; Post-graduate student of Tbilisi State University 1992-1995.

## Academic degree

Candidate of Sciences Physics and Mathematics, 1999, Diplome N. 002546.

## Research interests

Probability and Statistics, Stochastic analysis, Theory of the random processes, Mathematical Finance.

## Working experiance

Laboratory of probabilistic and Statistical Methods of Ivane Javakhishvili Tbilisi State University, researcher. Invited lecturer in Tbilisi State University, 2000-2009, Assistant-professor of Tbilisi State University, Department of Probability and Statistics since 2009.

## Participation in grants and projects

1. Georgian Statistical Association, Eurasia foundation project, Grant N. C 96-0030, "Creation of consulting service for financial and insurance structures of Georgia", 1996-1997.
2. INTAS Fellowship-Grant for the young scientists of NIS, YSF 00-162, 2000-2001.
3. INTAS Open Call, "Efficient source coding and related problems", Grant N. 00-738, 2000-2004.
4. GNSF grant "Financial markets with "disorders". Mathematical models. Entropy minimal martingale measures. Forecasting." GNSF grant N. 303/07, 045, 2007-2008.

## Scientific visits abroad

1. Friedrich Schiller University of Jena. Fakultat fur Mathematik und Informatik. 2001.
2. International conference in Information Theory and Computer Sciences, Erevan, Armenia, 17-21 September, 2001.
3. International Congress of Mathematicians. Beijing, China. 2002.

4. University of Copenhagen. Institut of Mathematics. 2003.
5. University of Jyvaskyla, Finland, 2004.
6. Second international conference "Problems of Cybernetics and Informatics", Baku, Azerbaijan, 10-12 September, 2008.
7. International conference "Probability, Reliability and Stochastic Optimisation"(PRESTO 2015), Kiev, Ukraine, 7-10 April, 2015.
8. International Conference in Functional Analysis dedicated to the 125th anniversary of Stefan Banach. Lvov, Ukraine, 18-23 September, 2017.

**Foreign languages:** English, Russian.

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## Main publications

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[1] Khechinashvili Z. *Financial$(B,S)$ -Market With Gaussian Martingale. Mean Square Optimal Hedging Strategies.*Proccedingsof A.Razmadze Mathematical Institute. Vol. 115, 33-43, 1997. With O.Glonti

[2] Khechinashvili Z. *Mean square optimal hedging strategies for Currency Option.* Bulletin of the Georgian Academy of Sciences.V.160, N.2, p.197-198, 1999.

[3] Khechinashvili Z. *Mean Square Optimal Hedging Strategies for (B,S) Financial Market.*Bulletin of the Georgian Academy of Sciences.V.159, N.2, p.185-188, 1999.

[4] Khechinashvili Z. *The Minimal Entropy and Minimal $\varphi$ -Divergence Distance Martingale Measures for the Trinomial Scheme* AMI, Vol. 7, No.2, 28-40,2002. With Glonti O., Jamburia L.

[5] Khechinashvili Z. *The minimimal$\varphi$ -divergence distance martingale measures for the trinomial scheme.* Bulletin of the Georgian Academyof Sciences. N. 166/3, 2003. With Glonti O., Jamburia L.

[6] Khechinashvili Z. *The Minimal Entropy Martingale Measure in Trinomial Scheme with "Disorder".* Bulletin of Georgian Academy of Sciences,V.170,N.3,2004. With Glonti O., Jamburia L.

[7] Khechinashvili Z. *Trinomial scheme with "disorder". The minimal entropy martingale measure.*Applied Mathematics, Informatics and Mechanics. V. 9, N. 2, 14-29, 2004. With Glonti O., Jamburia L.

[8] Khechinashvili Z. *The Nash Equilibrium in a Game of Calibration.* Probability Theory and Applications.Vol. 51, N3, 537-551, 2006. With O.Glonti, P.Harremous, F.Topsoe.

[9] Khechinashvili Z. *Martingale measures for the geometrical gaussian martingale.* Bulletin of the Georgian Academy of Sciences. Vol. 2, N. 4, 2008, pp. 40-43. With O.Glonti.

[10] Khechinashvili Z. Martingale measure for the geometrical gaussian martingale. The Second International Conference "Problems of Cybernetics and Informatics", September 10-12, pp. 251-252, 2008, Baku, Azerbaijan.With O.Glonti.

[11] Khechinashvili Z. Martingale measure for the geometrical gaussian martingales with "disorder". Proceedings of I.Vekua Institute of Applied Mathematics. Vol. 58, 2008, pp. 102-109. With O.Glonti.

[12] Khechinashvili Z. *Financial markets with disorders*. Reports of Enlarged Sessions of the Seminar of I. Vekua Institute of Applied Mathematics. 2009. WithO. Glonti, L. Jamburia.

[13] Khechinashvili Z. On the measures generated by the solutions of ordinal differential equations of high order and  random right side

 [14] Khechinashvili Z. *Geometric Gaussian martingale with disorder.*Theory of Stochastic Processes.Vol.16 (32) No.1 (2010), 44-48. With O. Glonti.

[15] Khechinashvili Z. *On inversion of the integral with conditional Wiener measure.* Georgian International Journal of Science and Technology.Vol. 3, No. 2, 2010, p.53-59.With Sokhadze G.

[16] Khechinashvili Z. *On one statistical problem in the Hilbert space.*Proceeding of  I. Vekua Institute of Applied math, vol. 61-62, 2012.p. 55-64. With E. Nadaraya, G.Sokhadze, A. Tkeshelashvili .

[17]Khechinashvili Z. *On the second boundary problem of ordinal differential equation with random coefficients.*Georgian International Journal of Science and Technology. Vol. 5, Issue 1-2. 2013, p. 1-6. With A. Gubeladze, G.Sokhadze.

[18] Khechinashvili Z. *The Equivalence of Distributions of Solutions of Linear Equations with Random Perturbation.*Georgian International Journal of Science and Technology.Vol. 5, No. 1-2, 2013.p. With P. Babilua, G.Sokhadze.

[19] *On Transformations of a  Random Measure*. Applied Mathematics, Informatics and Mechanics. Jaoshvili V., Khechinashvili Z., Sokhadze G., Tkeshelashvili A. Vol. 18, No.1, 2013, p. 47-54.

[20] Khechinashvili Z.*On maximum likelihood estimation of parameters of Ornstein-Uhlenbeek processes.* Applied Mathematics, Informatics and Mechanics.Vol. 19, No. 1, pp. 3-8, 2014.

[21] Khechinashvili Z. On Estimation Unbounded Functionals of Probability Distribution Density.Reports of Enlarged Session of the Seminar of I. Vekua Institute of Applied Mathematics. Vol. 28, 2014, pp. 9-11.With Buadze T., Sokhadze G.

[22] Khechinashvili Z.On the Fernique-Skorokhod type integrale. Reports of Enlarged Session of the Seminar of I. Vekua Institute of Applied Mathematics, Volume 29, 2015.With Buadze T., Sokhadze G.

[23] Khechinashvili Z. On one discrete model of the financial market. Bulletin of the Georgian Academy of Sciences. Vol. 4, 2016. With Babilua P., Dochviri B.

[24] Khechinashvili Z. On the Estimation of the Odds-Ratio Based on Kernel Estimates of the Regression Function. Bulletin of the Georgian National Academy of  Sciences. Vol. 11, No. 3, 2017. With E. Nadaraya, M. Patsatsia, P. Babilua.

[25] Khechinashvili Z.  On the multidimensional financial (B,S)-market. Reports of Enlarged Session of the Seminar of I. Vekua Institute of Applied Mathematics. Vol. 31, 2017. With B. Dochviri, N. Bokhashvili.