

1 Bibliographical Sketch

1.1 Omar Purtukhia

Personal information

Prof. Dr. Omar Purtukhia (male, born March 10, 1959)
Iv. Javakhishvili Tbilisi State University, Faculty of Exact and Natural Sciences,
Department of Mathematics, 1 Chavchavadze str, 0167, Tbilisi
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Academic Training

1984 PhD Moscow State University
1980 Dipl. Math. Tbilisi State University, Faculty of Mechanics and Mathematics

Academic Career

2006– Associate professor, Tbilisi State University
2000– Senior researcher, A. Razmadze Mathematical Institute
1990–2006 Senior researcher, Laboratory of stochastic analysis and statistical decisions, Tbilisi State University
1985–2000 Researcher, A. Razmadze Mathematical Institute

Additional information

Nothing relevant.

Honours and Services

2017– Member of dissertation council on mathematics, Georgian Technical University
2017– Chief specialist at the Office of Academic Process Management, of Faculty of Exact and Natural Sciences, Tbilisi State University
2016– Deputy chief editor, J. Mathematics, Tbilisi State University
2016– Member of a Editorial Board, J. Reports of Enlarged Session of the Seminar of I. Vekua Institute of Applied Mathematics, Tbilisi State University
2016–2017 Member of the Academic Council of Tbilisi State University
2015– Vice-president of the Georgian Statistical Association
2012– Head of Department of mathematics, Tbilisi State University
2012– Board member of the Georgian Mathematical Union
2012 Presidential award of honor, Republic of Georgia
2009–2016 Senior specialist at the Office of Academic Process Management and Scientific Researches, of Faculty of Exact and Natural Sciences, Tbilisi State University
2006–2007 Chief of Educational-Scientific Mathematical Institute, Tbilisi State University

Main research areas

Probability theory, random process theory, stochastic analysis, financial mathematics

Specifically: Diffusion processes, second order parabolic stochastic differential equations, filtration of diffusion processes, non anticipative and anticipative stochastic analysis, Malliavin calculus, martingale representation theorems, problems of hedging of European options.

Doctoral students

Vakhtang Jaoshvili 2005–2009 Tbilisi State University

Third-Party funding (within last five years)

- 2013–2016 Rustaveli National Science Foundation, Georgia, no. FR/308/5-104/12, Manager and Key Personnel
- 2013–2015 Rustaveli National Science Foundation, Georgia, no. FR/69/5-104/12, Key Personnel
- 2009–2011 Georgian National Scientific Foundation, Grant no. 09-383-3-106, Manager and Key perssonnel
- 2009–2011 Georgian National Scientific Foundation, Grant no. 09-471- 3-104, Key perssonnel
- 2006–2009 Georgian National Scientific Foundation, Grant no. 337/07, 06-223-3-104, Coordinator and Key perssonnel
- 2005 - 2006 Grant of Georgian Ministry of Education and Science, no. 37, Key perssonnel
- 2004 - 2005 Grant of Georgian National Academy of Sciences, no. 1.10.04, Key perssonnel
- 2003 - 2004 Grant of Georgian National Academy of Sciences, no. 1.10.03, Key perssonnel
- 2002 - 2003 Grant of Georgian National Academy of Sciences, no. 1.10.02, Key perssonnel
- 2001 - 2002 Grant of Georgian National Academy of Sciences, no. 1.10.01, Key perssonnel
- 2000 - 2001 Grant of Georgian National Academy of Sciences, no. 1.10.00, Key perssonnel
- 1997 - 1999 Project of INTAS, Grant no. 97-30204, Key perssonnel
- 1996 - 1997 Procect of Eurasia Foundation, Grant no. C 96-0030, Key perssonnel

(*) relevant for the current proposal.

Five selected publications

a) Articles with scientific quality assurance; book publications

- [om1] Omar Glonti and Omar Purtukhia, *On One Integral Representation of Functionals of Brownian Motion*, SIAM J. Theory of Probability and Its Applications **61** (2017), no. 1, 133–139, available at <https://www.siam.org/journals/tvp.php>.
- [om2] Hanna Livinska and Omar Purtukhia, *Stochastic Integral Representation of One Stochastically Nonsmooth Wiener Functional*, Bulletin of TICMI **20** (2016), no. 2, 11–23, available at <http://www.viam.science.tsu.ge/others/ticmi/blt/bulletin.htm>.

- [om3] Omar Glonti, Vakhtang Jaoshvili, Omar Purtukhia, and Ralf Meyer, *Hedging of European Option of Exotic Type*, Proceedings of A. Razmadze Mathematical Institute **168** (2015), 25–40, available at <http://www.rmi.acnet.ge/proceedings/>.
- [om4] *O. Purtukhia : Sobolev and Logarithmic Sobolev Type Inequalities*, Applied Mathematics, Informatics and Mechanics, **17, 2** (2012), pp. 26-39.
- [om5] Omar Purtukhia, *Sobolev and Logarithmic Sobolev Type Inequalities*, Applied Mathematics, Informatics and Mechanics **17** (2012), no. 2, 26–39, available at <http://http://www.viam.science.tsu.ge/Ami/Main.htm>.
- [om6] Vakhtang Jaoshvili and Omar Purtukhia, *An Extension of the Ocone-Haussmann-Clark Formula For the Compensated Poisson Processes*, SIAM J. Theory of Probability and Its Applications **53** (2009), no. 2, 316–321, available at <https://www.siam.org/journals/tvp.php>.