Alexander Melnikov

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Edmonton ♦ Alberta ♦ Canada ♦ T6G 2G1 ♦
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AREAS OF PROFESSIONAL EXPERTISE

- **Mathematical Finance and Risk-Management**
- **Insurance and Actuarial Science**
- **Statistics and Stochastic Analysis**
- **Stochastic Differential Equations and their Applications**

EDUCATION AND SCIENTIFIC DEGREES

- **Doctor of Sciences** in Physics and Mathematics
  Thesis "*Studies in Stochastic Differential Equations and their Applications to Stochastic Regression Analysis*", Steklov Mathematical Institute of Russian Academy of Sciences, Moscow **1995**
- **PhD** (Candidate of Sciences) in Physics and Mathematics
  Thesis "*Stochastic differential equations with respect to components of semimartingales*"
  Supervisor: Professor A.N.Shiryaev, Steklov Mathematical Institute of the USSR Academy of Sciences, Moscow **1980**
- **MSc** in Mathematics (with honor)
  Thesis (Diploma Work) *"A probabilistic method of the proof of the existence of strong solutions of SDE's with non-smooth coefficients"*
  Supervisor: Professor A.N.Shiryaev, Department of Theory of Probability, Faculty of Mechanics and Mathematics, Moscow State University **1976**

CURRENT POSITIONS

- **Professor**, University of Alberta, Edmonton, Canada **2001-present**
- **Adjunct Professor,** Concordia University, Montreal, Canada **2005-2009**
- **Editor-in-Chief**, Journal "Risk Management", Moscow **2008-present**

PREVIOUS POSITIONS

- **Chief-Scientist**, Risk-Invest Deutschland AG, Frankfurt, Germany **2005-2007**
- **Research Fellow / Senior Research Fellow / Leading Research Fellow**, Department of Theory of Probability and Mathematical Statistics, Steklov Mathematical Institute, Russian Academy of Sciences, Moscow **1979-2004**
- **Professor**, Department of Financial Management, State University-Higher School of Economics, Moscow **2000-2001**
- **Associate Professor / Professor**, Department of Theory of Probability, Moscow State University **1994-2001**
- **Vice-Director**, Center for Actuarial and Financial Studies, Moscow **1993-2001**
- **Member of Board of Directors**, Investment Company Alba-Center, Moscow **1995-2001**
- **Associate Professor**, Laboratory of Actuarial Mathematics, University of Copenhagen, Denmark **1998-1999**
- **Vice-President**, Russian Actuarial Society, Moscow **1996-1998**
- **Executive Secretary**, Russian Actuarial Society, Moscow **1994-1996**

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MEMBERSHIP IN PROFESSIONAL SOCIETIES

- Russian Academy of Natural Sciences (2008)
- International Bachelier Finance Society
- International Bernoulli Society on Mathematical Statistics and Probability Theory
- Canadian Applied and Industrial Mathematics Society (2008)
- Applied Mathematics Institute
- Probability Section of Statistical Society of Canada

SCIENTIFIC AWARDS, DISTINCTIONS AND GRANTS

- **A Fellow** of Russian Academy of Natural Sciences **2008**
- **The Leontiev medal "For achievements in economics"** of Russian Academy of Natural Sciences **2008**
- **Annual award for outstanding research**, Steklov Mathematical Institute, Russian Academy of Sciences **1998**
- **Senior Research Fellow**, USSR Academy of Sciences **1988**
- **Moscow Komsomol Prize** in the field of fundamental research **1985**
- **Petrovskii Student Competition Prize**, Moscow State University **1976**
- **Research grants:**
  - NSERC (Natural Sciences Foundation of Canada, 2004-2009): Discovery (individual) Grant "Pricing of Contingent Claims in Financial Markets with Constraints"
  - University of Alberta Vice President Research Fund (2006-2007): Individual Grant "Imperfect Hedging Applied to Equity-Linked Life Insurance"
  - University of Alberta Vice President Research Fund (2004-2005): Individual Grant "Financial Mathematics in Equity-Linked Insurance"
  - NSERC (Natural Sciences Foundation of Canada, 2003-2004): Discovery (individual) Grant "Stochastic and Statistical analysis in financial mathematics"
  - University of Alberta (2001-2003): Start up Fund
  - World Bank/National Fund of Human Resources (2000-2003): Project (principal investigator) on Mathematical Methods of Financial Analysis
  - INTAS (European Union Foundation, 1991-2001): 3 Discovery Grants (1-principal investigator, 2 co-applicant) on Stochastic Analysis, Optimal Control and Investment, Financial Mathematics
  - International Soros Foundation (1990-1993): Discovery Grant (co-applicant) on Stochastic Analysis
  - RFBC (Russian Fund of Basic research, 1991-2001): 4 Discovery Grants (co-applicant) on Stochastic Processes, Stochastic Analysis, Financial and Actuarial Mathematics

EDITORIAL WORK

- **Risk Management**, Publishing House "ANKIL", Moscow, Member of Editorial Board, 1997-2001, 2006-present.
- **Insurance Business**, Publishing House "ANKIL", Moscow, Member of Editorial Board, 2006-present.

- **Issues of Risk Analysis**, Member of Editorial Board, 2005-present.
- **Pi in the Sky**, Pacific Institute for Math. Sciences, Canada, Member of Editorial Board, 2004-2006.
- **Applied Statistics, Actuarial and Financial Mathematics**, Ukraine, Associate Editor, 1999-2001.
- **Questions of Risk Analysis**, Publishing House "ANKIL", Moscow, Member of Editorial Board, 1999-2001.
- **Applicationes Mathematicae**, Journal of Polish Academy of Sciences, Warsaw, Associate Editor, 1999-present.
- **Survey in Applied and Industrial Mathematics**, TVP Science Publishers, Moscow, Editor of the Series "Financial and Insurance Mathematics", 1995-1996.
- **Frontiers in Pure and Applied Probability**, TVP Science Publishers, Moscow, Co-Editor of the Proceedings of the 3-rd and 4-th Finnish-Russian Symposium on Probability Theory and Mathematical Statistics, 1993 and 1996.

MONOGRAPHS AND TEXTBOOKS

1. **Mathematical Methods of Financial Analysis** (with N.V. Popova and V.S. Skornyakova), Publ.House ANKIL, Moscow, 440 p., 2006.
2. **Risk Analysis in Finance and Insurance**, Chapman and Hall/CRC, Boca Raton, London, New York, Washington, 272 p., 2004.
3. **Risk-Management**: Stochastic Analysis of Risks in Economics of Finance and Insurance
   - First Edition, Publ.House ANKIL, Moscow, 112 p., 2001.
   - Second Edition, Publ.House ANKIL, Moscow, 159 p., 2003.
4. **Mathematics of Financial Obligations** (with M.L. Nechaev and S.N. Volkov)
   - State University - Higher School of Economics Publ.House, Moscow, 260 p., 2001.
   - English Translation, American Mathematical Society, Providence, 194 p., 2002.
5. **Financial Markets**: Stochastic Analysis and Pricing of Derivative Securities
   - TVP Sci.Publishers, Moscow, 126 p., 1997.
   - English Translation, American Mathematical Society, Providence, 133 p., 1999.

MAIN REFEREED SCIENTIFIC PAPERS

1. Efficient hedging and pricing of equity-linked life insurance contracts on several assets, *International Journal of theoretical and applied finance*, 2008, Vol.11, 3, 1-29 (co-author Yu.V.Romaniuk).
2. On financial markets based on telegraph processes, *Stochastics: An international J. of probability and stochastic processes*, 2008, 80, 2, 247-268 (co-author N.E.Ratanov).
3. On pricing contingent claims in a two interest rates jump-diffusion model via market completions, *Theor. Probability and Math.Statist*., 2007, No 77, 212-224 (with S.Kane, http://www.ams.org/tpms/).
4. On risk management of insurance contracts with investment component, *Insurance Business*, 2007, 9, 39-47 (with V.Skornyakova).
5. On a property of multidimensional normal distributions and its application to computation of options, *Doklady Mathematics*, 2007, Vol.75, No 3, 346-352 (Doklady Akademii Nauk, 2007, Vol. 414, No 1, 21-23, with Yu.Romaniuk, http://www.maik.ru).
6. Non-homogeneous telegraph processes and their applications to financial market modeling, *Doklady Mathematics*, 2007, Vol.75, No 1, 115-117 (Doklady Akademii Nauk, 2007, Vol. 412, No 5, 597-599, with N.Ratanov, http://www.maik.ru).

7. Evaluating the performance of Gompertz, Makeham and Lee-Carter mortality models for risk management with unit-linked contracts, *Insurance: Mathematics and Economics*, 2006, Vol. 39, 3, 310-329 (with Yu.Romaniuk).
8. On quantile hedging and its applications to the pricing of equity-linked life insurance contracts, *Survey in Applied and Industrial Math*., 2006, Vol. 13, 6, 993-1004.
9. Valuation and risk-management of equity-linked life insurance contracts via quantile hedging, *Canadian Institute of Actuares*, 2006, 26p (with V.Skornyakova). http://www.actuaries.ca/meetings/stochastic-investment/2006/pdf/1203_v.2.pdf
10. Valuation of flexible insurance contracts, *Theor. Probability and Math.Statist*., 2006, No 73, 109-115 (with M.Moliboga and V.Skornyakova).
11. Quantile hedging and its applications to life insurance, *Statistics and Decisions*, 2005, Vol. 23, 601-615 (with V.Skornyakova).
12. Efficient hedging and pricing of life insurance policies in a jump-diffusion model, *Stochastic Analysis and Applications*, 2005, Vol. 23, 1213-1233 (with M.Kirch).
13. The Margrabe formula and quantile hedging of life insurance policies, *Doklady Mathematics*, 2005, Vol.71, No 1, 31-34 (Doklady Akademii Nauk, 2005, Vol. 400, No 2, 153-156, with Yu.Romaniuk and V.Skornyakova).
14. On option pricing in binomial market with transaction costs, *Finance and Stochastics*, 2005, Vol. 9, 1, 141-149 (withYu.Petrachenko).
15. On the pricing of equity-linked life insurance contracts in Gaussian financial environment, *Theor. Probability and Math.Statist*., 2005, No 70, 105-111 (with M.Nechaev).
16. On efficient hedging of equity-linked life insurance policies, *Doklady Mathematics*, 2004, Vol. 69, No 3, 462-464 (Doklady Akademii Nauk, 2004, Vol. 396, No 6, 752-754).
17. Quantile hedging of equity-linked life insurance policies, *Doklady Mathematics*, 2004, Vol. 69, No 3, 428-430 (Doklady Akademii Nauk, 2004, Vol. 396, No 5, 601-603).
18. Pricing of flexible insurance schemes, *Journal of Economics*, State University-Higher School of Economics, 2003, Vol. 7, 2, 139-172 (with M.Moliboga).
19. Actuarial pricing methods, *Encyclopaedia in Economics and Mathematics*, Science Publishers ”Great Russian Encyclopaedia”/ INFRA-M, 2003, 15-16.
20. Option pricing in binomial market with spread, *Survey in Applied and Industrial Math*., 2002, Vol. 9, 3, 637-639 (with Yu.Petrachenko).
21. On non-ruin probability in economic environment and investment in Bachelier market, *Survey in Applied and Industrial Math*., 2002, Vol. 9, 2, 340-341 (with A.Boykov).
22. On the unity of quantitative methods of pricing in finance and insurance, *Proceedings of the Steklov Math. Institute*, 2002, Vol. 237, 57-79.
23. Pricing of premiums and reserves in traditional and innovative life-insurance schemes, *Insurance Business*, 2002, 3, 48-50.
24. No-arbitrage and completeness of discrete markets and pricing of contingent claims, *Survey in Applied and Industrial Math*., 2001, Vol. 8, 1, 28-40 (with K.Feoktistov).
25. On financial and actuarial mathematics, *Survey in Applied and Industrial Math*., 2001, Vol. 8, 1, 4-12.
26. Quantile hedging for a jump-diffusion financial market model, *Trends in Mathematics*, Birkhauser Verlag, Basel/Switzerland, 2001, 215-229 (with R.Krutchenko).
27. Financial system: innovations and pricing of risks, *J. Korean Math. Soc*., 2001, Vol. 38, 5, 1031-1046.
28. Binomial financial market in context of algebra of stochastic exponents and martingales, *Theor. Probability and Math.Statist*., 2001, No 62, 103-111.

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29. On the unity of quantitative methods of pricing of risks in finance and insurance, *Proceedings of the Third International Conference "Pricing of Risks in Insurance"*, Moscow State University, Editor I.Kotlobovskii, 2001, 94-98.
30. On the bounds for non-ruin probability in the framework of compound binomial risk and premium processes, *Proceedings of the International Conference "Functional Methods in Approximation Theory, Operator Theory, Stochastic Analysis and Statistics"*, Kiev National University, 2001, 13-15 (with A.Boykov).
31. On traditional and innovative forms of insurance, *Insurance Business*, 2000, 10, 56-57.
32. On global innovation processes in financial markets, *Questions of Risk Analysis*, 1999, 2, 10-15.
33. Martingale models of stochastic approximation and their convergence, *Theory Probab. Appl.*, 1999, Vol. 44, 2, 278-311 (with E.Valkeila).
34. On innovation and risk aspects of evolution of financial system, *Questions of Risk Analysis*, 1998, 1, 22-27.
35. On global tendencies in evolution of financial markets, *Bulletin of Association of Russian Banks*, 1998, 18, 71-74.
36. On the mean-variance hedging problem, *Theory Probab. Appl.*, 1998, Vol. 43, 4, 588-603 (with M.Nechaev).
37. Asymptotic normality of generalized Robbins-Monro procedures, *Functional Differential Equations*, 1997, Vol. 4, 3-4, 405-418 (with A. Rodkina and X. Mao).
38. Financial innovations and problems of risk-management, *Risk Management*, 1997, 4, p. 34-41.
39. Stochastic differential equations: singularity of coefficients, regression models and stochastic approximation, *Russian Math. Surveys*, 1996, Vol. 51, 5, 43-136.
40. Criteria for the absence of arbitrage in the financial market, *Frontiers in Pure and Applied Probab.*II, Editors: A.Shiryaev et al, TVP Sci. Publishers, Moscow, 1996, 121-134 (with A.Shiryaev).
41. Stochastic analysis in financial and actuarial mathematics, *Survey in Applied and Industrial Math.*, 1995, Vol. 2, 4, 514-526.
42. Towards the theory of pricing of options of European and American type. II. Continuous time, Theory Probab. Appl., 1994, Vol. 39, 1, 80-129 (with A.Shiryaev, Yu.Kabanov, D.Kramkov).
43. Towards the theory of pricing of options of European and American type. I. Discrete time, *Theory Probab. Appl.*, 1994, Vol. 39, 1, 23-79 (with A.Shiryaev, Yu.Kabanov, D.Kramkov).
44. Asymptotic behavior of stochastic approximation procedures, *Statistics and Control of Stochastic Processes*, Editor A.Novikov, TVP Sci. Publishers, Moscow, 1994, 93-104.
45. On a general class of stochastic approximation algorithms, *Proceedings of the Third Finnish-Russian Symposium on Probab.Theory and Math. Stat.*, Editors H.Niemi et al, TVP/VSP, Moscow, 1993, 183-196 (co-authors A. Rodkina and E. Valkeila).
46. Martingale approach to the procedures of stochastic approximation, *Proceedings of the Third Finnish-Russian Symposium on Probab.Theory and Math. Stat.*, Editors H.Niemi et al, TVP/VSP, Moscow, 1993, 165-182 (co-author A. Rodkina).
47. On a class of stochastic differential equations arising from the theory of stochastic approximation, *Stochastics and Stochastic Reports*, 1993, Vol. 44, 253-259.
48. Consistent statistical estimation in semimartingale models of stochastic approximation, *Ann. Acad. Sci. Fennicae*, Ser. Math., 1992, Vol. 17, 85-91 (co-author A. Rodkina).
49. On large deviations probabilities for multidimensional martingales, *Russian Math.Surveys*, 1990, Vol. 45, 2, 213-214.
50. Statistical inferences for semimartingale regression models, *Probab.Theory and Math. Stat.*, Editors: B.Grigelionis et al, Vilnius, VSP/Mokslas, 1990, Vol. 2, 150-167 (with A. Novikov).

51. Stochastic approximation procedures for semimartingales, *Statistics and Control of Stochastic Processes*, Editor A.Shiryaev, Moscow, Nauka, 1989, 147-156.
52. On regression models with non-square integrable martingale-like errors, *Publications of Rennes Univ.*, Rennes, 1988, 97-107.
53. Disorder problem for semimartingales, *Theory Probab. Appl.*, 1988, Vol. 33, 3, 621-625.
54. Stochastic Approximation procedures in statistics of semimartingale-like processes, *Russian Math. Surveys*, 1988, Vol. 43, 4, 215-216.
55. Sequential inferences with fixed accuracy for semimartingales, *Theory Probab. Appl.*, 1988, Vol. 33, 3, 480-493 (with A. Novikov).
56. Large Numbers Law for multidimensional martingales, *Doklady Mathematics*, 1986, Vol. 33, 1, 131-135.
57. On boundary value problems for Gaussian martingales, *Statistics and Control of Stochastic Processes* (Steklov Seminar–1984), Editors: N.Krylov et al, 1985, 337-348 (with D.Hadjiev).
58. On solutions of stochastic equations with driving semimartingales, *Proceedings of the Third European Young Statisticians Meeting*, Catholic University, Leuven, 1983, 120-124.
59. Stochastic equations and Krylov's estimates for semimartingales, *Stochastics*, 1983, Vol.10, 81-102.
60. On strong solutions of stochastic equations with respect to semimartingales, *Lecture Notes in Control and Information Sciences*, Springer-Verlag, 1982, Vol. 43, 122-127.
61. On properties of strong solutions of stochastic equations with respect to semimartingales, *Stochastics*, 1982, Vol.7, 4, 103-119.
62. Gronwall lemma and stochastic equations with respect to semimartingales, *Mathematical Notes*, 1982, Vol.32, 3, 411-423.
63. Stochastic martingale-like sequences and processes, *Theory Probab. Appl.*, 1982, Vol.27, 3, 547-551.
64. Asymptotics of small deviations probabilities for Caussian martingales, *Comptes Rendus Bulgarian Acad. Sci.*, 1981, Vol.34, 11, 1485-1486 (with D.Hadjiev).
65. On the theory of stochastic equations in components of semimartingales, *Sbornik Mathematics*, 1981, Vol.38, 3, 381-394.
66. On strong solutions of stochastic differential equations with non-smooth coefficients, *Theory Probab. Appl.*, 1979, Vol.24, 1, 146-149.

Preprints, working papers and other publications

1. Efficient hedging and pricing of equity-linked life insurance contracts on several risky assets, Bank of Canada Working Paper 2006-43, Bank of Canada, Ottawa, November 2006, VI+57p (with Yu.Romanyuk).
2. Stochastic methods for assessment and management of mortality risk, Preprint 2, Applied Mathematics Institute, University of Alberta, 2005, 20p (with Yu.Romaniuk).
3. Efficient hedging methodology applied to equity-linked life insurance, Tech. Report 1, Department of Math.and Stat., Concordia University, Montreal, 2005, 14p (with V.Skornyakova).
4. Pricing of Equity-Linked Life Insurance Contracts with Flexible Guarantees, Tech. Report1, Department of Math.and Stat., Concordia University, Montreal, 2004, 21p (with V.Skornyakova).

5. Hedging in the presence of market constraints, Proceedings of the 5-th PIMS Graduate Industrial Math.Modeling Camp, Ed. M.Trummer, Pacific Institute for Math. Sciences, Vancouver, 2004, 73-90 (with Moliboga et al).
6. Mathematics in today's financial markets, Pi in the Sky, Journal of Pacific Institute for Math. Sciens, 2003, 6, 21-23.
7. A.N.Kolmogorov and his creative life, Pi in the Sky, Journal of Pacific Institute for Math. Sciences, 2003, 7, 23-25.
8. Efficient hedging for a complete jump-diffusion model, Research Project 373, Humboldt Univ., Berlin, 2002, Discussion Paper 27, 16p (with M.Kirch and R.Krutchenko).
9. Financial mathematics, Center for Actuarial and Financial Studies, Moscow, 2001, 17p (with V.Stepanov).
10. Problems to the course on risk-management, Center for Actuarial and Financial Studies, Moscow, 2001, 42p (with A.Boykov and D.Kosinetz).
11. Elements of financial risk-management, Center for Actuarial and Financial Studies, Moscow, 2000, 51p.
12. Elements of insurance risk-management, Center for Actuarial and Financial Studies, Moscow, 2000, 87p (with A.Boykov).
13. On the unity of quantitative methods of calculations in finance and insurance, Center for Actuarial and Financial Studies, Moscow, 2000, 26p.
14. Financial system: innovations and pricing of risks, Technical Report 5, Department of Econometrics, University of Karlsruhe, 1999, 21p.
15. On a discrete financial market model and methods for the pricing of derivative securities, Center for Actuarial and Financial Studies, Moscow, 1996, 12p (with M.Nechaev and V.Stepanov).
16. On actuarial profession, Insurance review, 1995, 2, 45-46.

INVITED TALKS AND PRESENTATIONS

- 2nd Canada-France Congress, Section of Mathematical Finance (Montreal, Canada, 2008).
- South-North Dialog Meeting, Section of Mathematical Finance (Calgary, Canada, 2008).
- Global Risk Management Practices and Emerging Markets International Conference (Professional Risk Managers International Association, Moscow, 2006).
- Stochastic Modeling Symposium and Investment Seminar (Canadian Institute of Actuaries, Toronto, Canada, 2006).
- Annual Meeting of Canadian Statistical Society, Section "Probability and Finance" (London, Canada, 2006)
- International Conference on Quantitative Methods in Finance (Sydney, Australia, 2005).
- 9-th International Congress "Insurance: Mathematics and Economics" (Quebec City, Canada, 2005).
- International Conference on Finance (Copenhagen, Denmark, 2005).
- Seminar on Mathematical Finance (University of North Caroline at Charlotte, USA, 2005).
- Seminar on Quantitative Finance (University of Mainz, Mainz, Germany, 2005).
- Annual Meeting of Canadian Mathematical Society, Section "Actuarial Finance" (University of Waterloo, Waterloo, Canada, 2005).
- Seminar on Financial Mathematics (Swiss Federal Institute of Technology, Zurich, 2005).
- Seminar on Financial Mathematics (Humboldt University, Berlin, Germany, 2005).
- International Conference "Stochastic Calculus and its Applications to Quantitative Finance and Electrical Engineering" (University of Calgary, Canada, 2005).

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- Seminar on Life Insurance and Finance (University of Copenhagen, Denmark, 2005).
- Seminar on Mathematical Finance (University of Oslo, Norway, 2005).
- Seminar on Mathematics and its Applications (Steklov Mathematical Institute, Moscow, 2005).
- Seminar on Risk-Management (State University-Higher School of Economics, Moscow, 2005).
- Seminar on Financial Mathematics (Politechnical University of Turin, Italy, 2005).
- Seminar on Financial Mathematics (University of Freiburg, Freiburg, Germany, 2005).
- PIMS Seminar on Mathematical Finance (University of British Columbia, Vancouver, Canada, 2005).
- The Fields Institute Seminar on Quantitative Finance and IFID Conference (Toronto, Canada, 2004).
- Risk-Management in Insurance (Waterloo, Canada, 2004).
- Semimartingale Theory and Practice in Finance (Banff, Canada, 2004).
- The Third World Congress of Bachelier Finance Society (Chicago, USA, 2004).
- The Courant Institute Seminar on Mathematical Finance (New York, USA, 2004).
- Seminar on Mathematical Finance (Illinois Institute of Technology, Chicago, USA, 2004).
- Actuarial Mathematics Seminar (Concordia University, Montreal, Canada, 2004).
- Applied Mathematics Seminar (McGill University, Montreal, Canada, 2004).
- Statistics Research Workshop (University of Manitoba, Winnipeg, Canada, 2004).
- International Conference on Financial Mathematics (St.-Johns, Canada, 2003).
- Montreal Mathematics Colloquium (Montreal, Canada, 2003).
- PIMS Seminar on Mathematical Finance (University of British Columbia, Vancouver, Canada, 2003).
- South-North Conference (University of Calgary, Canada, 2003).
- Annual Meeting of Canadian Mathematical Society (University of Alberta, Edmonton, Canada,2003).
- Problem Solving Workshop (University of British Columbia, Vancouver, Canada, 2002).
- 5th Graduate Industrial Mathematics Modeling Conference (Simon Fraser University, Vancouver, Canada, 2002).
- International Gnedenko Conference (Kiev National University, Ukraine, 2002).
- 65th Annual Meeting of the Institute of Mathematical Statistics (Banff, Canada, 2002).
- Filtering Theory and Applications (Edmonton, Canada, 2002).
- Seminar on Actuarial Science (City University, London, 2001).
- Seminar on Actuarial Mathematics and Statistics (London School of Economics, 2001).
- International Conference “Comprehensive Education and Research Technologies in Economics” (Financial Academy, Moscow, Russia, 2001).
- International Conference “Functional Methods in Approximation Theory, Operator Theory, Stochastic Analysis and Statistics” (Kiev National University, Ukraine, 2001).
- International Conference “Mathematical Modeling in Finance” (Nauvo, Finland, 2000).
- International Conference “Mathematics in the new Millenium” (Korean Mathematical Society, Seoul, Korea, 2000).
- International Conference “Pricing of Risks in Insurance” (Moscow State University, Russia, 2000).
- International Conference on Mathematical Finance (University of Konstantz, Germany, 2000).
- International Conference “Six Projects in Mathematics and Physics” (Technical University of Berlin, Germany, 1999).
- International Conference on Mathematical Finance (Banach Math. Center, Warsaw, Poland, 1998).
- Second International Congress “Insurance: Mathematics and Economics” (Lausanne, Switzerland, 1998).
- International Conference “Actuarial Science: theory, education and implementation” (Steklov Mathematical Institute, Moscow, Russia, 1997).

- International Conference on Statistics and Finance (Aarhus University, Denmark, 1994, 1996).
- International Tele-Conference "Mathematics and Finance" (Moscow-Zurich-London, 1996).
- International Conference on Finance and Stochastics (Berlin, Germany, 1992, 1994, 1996).
- Semester on Financial Mathematics (University of Cambridge, Cambridge, England, 1995).
- Japan-Russian Symposium on Probability Theory and Mathematical Statistics (Tbilisi, USSR, 1982 and Tokyo, Japan, 1995).
- Finnish-Russian Symposium on Probability Theory and Mathematical Statistics (Helsinki, 1987, Leningrad, 1989, Turku, 1991, Moscow, 1993, Helsinki, 1996).
- European Meeting of Statisticians (University of Barcelona, Spain, 1991 and Vilnius University, Lithuania, 1998).
- European Conference on Stochastic processes (University of Roma, Italy, 1988).
- World Congress of Bernoulli Society on Mathematical Statistics and Probability Theory (Tashkent, USSR, 1986, and Uppsala, Sweden, 1990).
- International Colloquium on Goodness of Fit (Debrezen University, Hungary, 1984).
- European Meeting of Young Statisticians (Leuven, Belgium, 1983, and Varna, Bulgaria, 1985).
- USSR School-Colloquium on Probability Theory and Mathematical Statistics (Bakuriani/Tbilisi, USSR, 1982 and 1986).
- Stochastic Dynamical Systems (University of Bonn, Bad-Honnef, Germany, 1982).
- Vilnius International Conference on Probability Theory and Mathematical Statistics (Vilnius University, Lithuania, 1981, 1985, 1989, 1998).

COURSES FOR UNDERGRADUATE AND GRADUATE STUDENTS

- Introduction to Mathematical Finance
- Mathematical Finance I and II
- Advanced Mathematical Finance
- Models of Term Structure of Interest Rates
- Risk-Management in Finance and Insurance
- Stochastic Methods in Finance
- Actuarial Mathematics
- Probability Theory I and II
- Statistics
- Intermediate Calculus

GRADUATE STUDENTS, PHD STUDENTS AND POST-DOCTORAL FELLOWS UNDER SUPERVISION AND THEIR EMPLOYMENT

1. Li Hao (University Alberta, MSc, 2007-2009).
2. K.-W.Heung (University Alberta, MSc, 2007-2009).
3. A.Evstafyeva (University of Alberta, MSc, 2007-2009).
4. I.Smirnov (University of Alberta, PhD, 2006-2010).

5. V.Krasin (University of Alberta, PhD, 2005-2009).
6. Yu.Petrachenko (University of Alberta, PhD, 2003-2008).
7. Yu.Romaniuk (University of Alberta, PhD, 2002-2006) – Senior Analyst, Bank of Canada, Ottawa, Canada.
8. S.Kane (University of Alberta, PhD, 2001-2005) – Analyst of Alberta Finance (Government of Alberta, 2005-2006), Analyst of Office of Superintendent of Financial Institutions, Government of Canada, Toronto.
9. R.Oulton (University of Alberta, MSc., 2003-2005) – Financial Advisor, World Financial Group, Canada.
10. W.Guo (University of Alberta, MSc., 2003-2004) – Insurance Advisor, Insurance Company "Freedom 55 Financial", Canada.
11. V.Skornyakova (University of Alberta, Post-Doctoral Fellow, 2001-2002) – Associate of Mercer Investment Consulting at Montreal (2004-2006), Investment Analyst at the Workers' Compensation Board-Alberta, Edmonton, Canada.
12. A.Boykov (Steklov Mathematical Institute, PhD, 2000-2003) – Head of Actuarial Department, Insurance Company "Capital-Insurance", Moscow.
13. M.Nechaev (Steklov Mathematical Institute, PhD, 1996-1999) – Research Fellow, Steklov Math.Institute, Russian Academy of Sciences, Moscow.
14. A.Kuznestov (Moscow State University, MSc., 1999-2002) – Assistant Professor, York University, Toronto, Canada.
15. R.Ivanov (Moscow State University, MSc., 1999-2002) – Research Fellow, Institute of Problems of Control, Russian Academy of Sciences, Moscow.
16. M.Moliboga (Moscow State University, MSc., 1998-2001) – Senior Research Analyst, Efficient Capital Ltd., USA.
17. A.Selivanov (Moscow State University, MSc., 1998-2001) – Assistant Professor, Moscow State University.
18. D.Benko (Moscow State University, MSc., 1998-2001) – Business Company, Moscow.
19. S.Podduvalkina (Moscow State University, MSc., 1997-2000) – Central Bank of Russia,Moscow.
20. R.Krutchenko (Moscow State University, MSc., 1997-2000) – Business Company, Moscow.
21. E.Weinberg (Moscow State University, MSc., 1997-2000) – MBA Program, Germany.
22. S. Tsarevskii (Moscow State University, MSc., 1996-1999) – National Fund of Human Resourses, Moscow.
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