Curriculum Vitae
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Georgy L. SHEVLYAKOV
Professor of Mathematics

Current position: Visiting Professor

Address: Department of Information and Communications, Gwangju Institute of Science and Technology,
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Research fields:
Robust Statistics
Data Analysis
Signal Processing

Affiliations:

Professor (renewable contract), Department of Mathematics, St. Petersburg State Polytechnic University, Russia, April 1992-present

Visiting Professor, Department of Information and Communications, Gwangju Institute of Science and Technology, March 2006 – present

Visiting IT Professor, Department of Information and Communications, Gwangju Institute of Science and Technology, September 2003-February 2006

Associate Professor, Department of Mathematics, St. Petersburg State Polytechnic University, St. Petersburg, Russia, September 1986- March 1992

Leading Scientist (part time), Institute for Mechanical Engineering, Russian Academy of Sciences, St. Petersburg, October 1994 – August 2003

Visiting Professor, Department of Applied Mathematics, Kumoh National University of Technology, South Korea, March 1997-February 1998

Senior Scientist, Department of Mechanics and Control Processes, Leningrad Polytechnic Institute, USSR, 1980-1986

Scientist, Department of Biometrics, All-Union Research Institute for Plant Breeding, Leningrad, USSR, 1976 -1979

Education (degrees):

St. Petersburg State Polytechnic University, St. Petersburg, Russia; Doctor of Sciences in Physics and Mathematics, December 1991; Thesis title: Methods and Algorithms of Data Analysis under the Conditions of Uncertainty

Leningrad Polytechnic Institute, Leningrad, USSR; Ph.D. in Statistics, June 1976;
Thesis Title: Robust Estimation and Detection of Signals by the Least Absolute Values Method

Leningrad Polytechnic Institute, Leningrad, USSR; M. Sc. in Cybernetics, March 1973; Diploma summa cum laude
Thesis Title: On Applications of Order Statistics to Estimation of Signals and Rejection of Outliers

Languages: Russian, English, French

Computer skills: MAPLE, MATLAB

Grant history (from 1980):

1980-1982: Grant from the Research Laboratory of "Electrosila" (one of the biggest electrical machinery plants in the USSR). The research topic was concerned with estimation of the parameters of transition processes in electrical machines, especially in stiff system models.

1983-1991: Several grants from the Leningrad Institute of Cardiology and the Research Institute for Bio-Medical Devices. The basic research was concerned with the design and creation of the automatic system of cardiac syndrome diagnostics (various problems of statistical estimation, hypothesis testing, image recognition, etc.) The topic of one of those grants was devoted to the statistical analysis of sudden cardiac death risk factors and their dependence on the meteorological and solar activity.

1993-1997: Grant No 0590312 from the Ministry of Education of Russia "Methods of Data Analysis, Estimation and Mathematical Modeling under the Conditions of Uncertainty".

1995: Grant from the Soros Foundation: honored the title of Soros Associate Professor.

1995: Grant from the Ministry of Education of Russia for the preparation of the text-book in Probability, Mathematical Statistics, Stochastic Processes, and Queuing Theory for technical universities.

1997: Two grants from the Kumoh University of Technology (South Korea) "Robust Correlation and Robust Estimation of Scale in Time to Failure Models".

1999-2000: Grant No 97-01-01155 from the Russian Foundation for Basic Research "Nonlinear Laws for Control of Dynamic Systems on the Basis of Fuzzy Logic and Neural Networks".

1999-2000: Grant No 99-02-00206a from the Russian Humanitarian Scientific Foundation "Mathematical Modeling of the Dynamics of the Russian Financial Market and the Methods of Decision Making on Investments".

2001: Grant No 01-08-01108 from the Russian Foundation for Basic Research (for travel support).

2002: Grant No 02-08-01106 from the Russian Foundation for Basic Research (for travel support).

2002: Grant No 02-03 from the French-Russian Liapunov Institute "Priority Queuing and Generalized Processor Sharing with Applications to ATM Networks and Differentiated Services in the Internet".

2003: Grant from the Kumoh National Institute of Technology, South Korea "Stable Estimation of a Correlation Coefficient of the Bivariate Normal Distribution".

2003-2005: Grant from the Gwangju Institute of Science and Technology, South Korea "Robust Detection in Non-Gaussian Noise".

2006-2008: Grant 061-3-2 from the Korean Foundation of Science and Technology (Brain Pool Program) "Non-Gaussian Noise Modeling and Robust Detection Methodology for Low-Activity Telemetry Systems".

Supervising M.S. diploma and Ph. D. theses:

5 M.S. diploma theses (1981-1987) and **5** Ph.D. theses (1993-present)

1993 – 1996: Marina Pashkevich. Ph. D thesis "Robust methods and algorithms of estimation of power spectra".

1995 – 1999: Tatiana Khvatova. Ph. D. thesis "Methods and algorithms for detection of outliers in the data". Ph.D. degree conferred in 1999.

2005 – 2007: Mahmoud Hejazi. Ph. D topic "Methods and algorithms of image processing based on modified Radon transforms". Ph.D. degree conferred in 2007.

2006 – present: Jin Tae Park. Ph. D. topic: Methods and algorithms of robust detection in non-Gaussian noise".

2006 - present: Nguen Nga-Viet. Ph. D. topic "Methods and algorithms of robust fusion in Kalman filtering".

Selected visits (from 1995):

University of Massachusetts, Lowell, Boston, USA, December 2006 (visiting professor)
Technical University of Vienna, Vienna, Austria, June 2006 (invited lecture)
Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, July 2005 (visiting professor)
INRIA, Sophia-Antipolis, France, April 2003 (visiting professor)
Ecole Polytechnique Fédérale de Lausanne, Lausanne, Switzerland, June-July 2002 (visiting professor)
INRIA, Sophia-Antipolis, France, October-November 2001 (visiting professor)
University of Liverpool, Liverpool, England, October 2001 (invited lecture)
University of Strasbourg, Strasbourg, France, February 2000, February 1999 (invited lectures)
University Lille 1, Lille, France, January 2000, February 1999 (invited lectures)
University Montpellier II, Montpellier, France, January 2000 (invited lecture)
University Paul Sabatier, Toulouse, France, February 1999 (invited lecture)
University of Rennes, Rennes, France, February 1999 (invited lecture)
University Paris VI, Paris, France, January 1999 (invited lecture)

Cheju State University, Cheju, Korea, February 1998 (invited lecture)
Korean Mathematical Society, Seoul, Korea, October 1997 (invited lecture)
Korean Institute of Advanced Studies, Taejon, Korea, September 1997 (invited lecture)
Mathematical Institute of Polish Academy of Sciences, Warsaw, Poland, October-November 1995 (visiting professor)

Selected conferences (from 1995):

International Conference on Robust Statistics 2008, Antalya, Turkey, September 2008
IEEE TENCON 2007, Taipei, Taiwan, November 2007.
IFAC ALCOSP 07, St. Petersburg, Russia, August 2007.
International Conference on Robust Statistics 2006, Lisbon, Portugal, July 2006.
International Conference on Robust Statistics 2005, Jyväskylä, Finland, June 2005.
International Conference on Acoustics, Speech and Signal Processing (ICASSP-2005), Philadelphia, March 2005.
Nordic Radio Symposium (NRS), Oulu, Finland, August 2004.
International Conference on Robust Statistics 2004, Beijing, China, July 2004.
XXIII International Seminar on Stability Problems for Stochastic Models, Pamplona, Spain, May 2003
XXII International Seminar on Stability Problems for Stochastic Models, Varna, Bulgaria, May 2002
VI International Conference "Computer Data Analysis and Modeling", Minsk, Belarus, September 2001
XX Seminar on Stability Problems for Stochastic Models, Lublin, Poland, September 1999
VII International Vilnius Conference on Probability Theory. XXII European Meeting of Statisticians, Vilnius, Lithuania, August 1998
MODA 5 - Advances in Model-Oriented Data Analysis, Marseille, June 1998
International Conference "Computer Data Analysis and Modeling", Minsk, Belarus, June 1998
Bernoulli Society Conference on Probability and its Applications, Taejon, Korea, February 1998
XVIII Seminar on Stability Problems for Stochastic Models, Debrecen, Hungary, January 1997
International Conference "Statistical Education in Modern World: ideas, directions, technologies ", St-Petersburg, Russia, July 1996
XXII International Conference on Mathematical Statistics, Jachranka, Poland, June 1996
III International Congress on Industrial and Applied Mathematics, Hamburg, July 1995
XVII Seminar on Stability Problems for Stochastic Models. Kazan, Russia, June 1995
International Conference "Computer Data Analysis and Modeling". Minsk, Belarus, June 1995

Administrative and collective responsibilities:

Scientific Council, St. Petersburg State Polytechnic University, Member, 1997 - present
Department of Mathematics, St. Petersburg State Polytechnic University, Vice-Chief responsible for the work with international students, 1995 - 2002
Department of Mathematics, St. Petersburg State Polytechnic University, Vice-Chief responsible for research, 2002 – 2003.

Professional memberships:

Member of the Bernoulli Society (1996).
Member of the IEEE Society (2004).

Awards: Soros Professor of Mathematics, 1995.