

1 Curriculum Vitae of Sabir Umarov

- **Address:** Department of Mathematics, Tufts University
503, Boston Ave, Medford, MA 02155
- **Tel:** 617-627-2357,
- **Fax:** 617-627-3966
- **E-mail:** Sabir.Umarov@tufts.edu
- **Webpage:** <http://www.tufts.edu/~sumaro01/>
- **Education:**
 - **PhD:** Moscow Power Engineering Institute (Technical University), Moscow, Russia
 - **Doctor of Science:** Mathematics Institute of the Academy of Sciences of Uzbekistan
 - **MA:** Tashkent State University, Applied Mathematics and Mechanics
 - University of World Languages, English (1995-1996)
- **Languages:** English, Russian, German
- **Research fields:**
 - Fractional order differential equations,
 - Pseudo-differential operators with singular symbols,
 - Stochastic differential equations,
 - Nonextensive statistical mechanics,
 - Anomalous diffusion; applications to cell biology,
 - Computational fractional dynamics and random walk models
- **Service:**
 - Editorial Board of "Fractional Calculus and Applied Analysis";
 - Reviewer of Mathematical Reviews, Zentralblatt MATH, and numerous journals
- **Supervised:** 3 PhD dissertations; 2 postdocs; over 20 master's topics
- **Courses taught: 1. Basic courses:**
 - Precalculus;
 - Calculus I, II, III;
 - Functional analysis;
 - Linear algebra;
 - Analytic geometry;
 - Ordinary differential equations;

Partial differential equations;

Numerical methods;

Probability theory;

Mathematical statistics

2. Specialized courses:

Contemporary methods of mathematical physics and differential equations;

Fractional order differential equations and applications;

Spectral theory of linear pseudo-differential operators;

Random walk models and anomalous diffusion processes;

Fractional calculus;

Advanced probability;

Stochastic differential equations

- **Publications:** Published more than 60 articles, preprints, including mathematical education pamphlets. (List of math publications is attached)

- **Employment record:**

2007 - , As. Professor, Tufts University, Department of Mathematics;

2005 - 2007, Visiting Professor, University of New Mexico, Department of Mathematics and Statistics;

– 2005 Dec - 2006 Mar, NIH STMC (Spatiotemporal Modeling of Cell Signaling), Health Sciences Center at University of New Mexico;

– 2006 Jun - 2006 Aug, NIH STMC, Health Sciences Center at University of New Mexico;

2001 - 2004, National Team Leader (part time), Cambridge Education Consultants (UK), Supervised implementation of professional educational project in Uzbekistan funded by Asian Development Bank

1995 - 1996, Chair and Professor, Department of Mathematical Physics, National University of Uzbekistan;

1993 - 2007, Professor, National University of Uzbekistan, Mathematics;

1990 - 1993, PostDoc (habilitation), National University of Uzbekistan, partially Moscow Power Engineering Institute, and Moscow State University;

1987 - 1990, Asso. Professor, Tashkent State University, Department of Mathematical Physics;

1983 - 1986, Graduate Studies (Supervisor: Prof. Dubinskii, Yu. A.), Moscow Power Engineering Institute;

1980 - 1982, Engineer, Cybernetics Institute of the Academy of Science of Uzbekistan;

- **Professional societies:**

American Mathematical Society, since 1987;

Uzbek Mathematical Society

International Society for Analysis, its Applications and Computation (ISAAC), since 2003 (lifetime member)

- **Universities visited:**

Korea University, Seoul, South Korea, (Summer 2009)

CBPF (Brazilian Institute for Physics Research), Rio de Janeiro (Dec 2008)

University of New Mexico, Albuquerque (2005-2007)

Free University of Berlin, Berlin (1999-2000 and 2003-2004)

- **Grants, honors:**

2005 Dec-2006 Apr, 2007 (Jun-Aug) NIH STMC Grant P20 GM067594

2005 (Feb-Nov), UNM, Albuquerque, Grant of the Fulbright Program

2003-2004 and 1999-2000 Free University of Berlin, Berlin, DAAD

1998 Pacific Resource Exchange Center, Japan, Japan International Cooperation Agency;

1994-1995 NSF international research grant (grant # Z1000)

1992 Individual NSF grant

1990-1993 Academy of Sciences of Uzbekistan

1983-1986 Moscow Power Engineering Institute (Technical University), Moscow

- **Conferences:**

International Conference "Complexity, Metastability and Nonextensivity", Catania, Italy, July 1-5, 2007;

Los-Alamos Days, Tucson, AZ, USA, February 9-10, 2007;

International Conference "Dynamical Systems and Statistical Mechanics", Durham, UK, July 3-13, 2006;

International Symposium on Fractional Calculus, Dunedin, New Zealand, January 9-13, 2006;

International Conference "Differential and Difference Equations", Melbourne, FL, 2005, USA;

The IV International Conference on High Dimensional Probability, Santa Fe, NM, USA, June 20-24, 2005;

International Conference "Silk Road Quantum Mechanics; Tashkent, Uzbekistan, September 28 - October 3, 2003

International Conference "Mimetic discretizations in mechanics", San Diego, CA, USA, July, 2003;

International Conference on Computer Algebra and Scientific Computation, Samarkand, Uzbekistan, October, 2003;

International Conference "Degenerate Equations; and Equations of Mixed Type", Tashkent, Uzbekistan, 1994;

International Conference "Qualitative Methods in the Theory of Boundary Value Problems", Voronezh, Russia, May, 4-8, 1992;

International Conference "Differential Equations", Joint Meeting of Moscow State University and Moscow Mathematical Society Moscow, Russia, 1991;

International conference "Actual Problems of Complex Analysis", Tashkent, Uzbekistan, 1989;

International conference "Functional Methods in Mathematical Physics", Tashkent, Uzbekistan, 1988;

International Conference "Differential Equations", Joint Meeting of Moscow State University and Moscow Mathematical Society Moscow, Russia, 1985