

Khachik V. Sargsyan

CONTACT INFORMATION

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SUMMARY, OBJECTIVE

- Applied mathematician with expertise in stochastic processes, statistical analysis, numerical methods, mathematical modeling, software development.
- Interested in a challenging, research-oriented position that is coherent with my background and provides professional growth opportunities.

PROFESSIONAL SKILLS

Research Expertise

- Stochastic processes
 - Probability theory
 - Markov processes
 - Large deviations
- Statistical analysis
 - Bayesian inference
 - Monte Carlo methods
 - Model classification
- Differential equations
 - Ordinary DE
 - Partial DE
 - Stochastic DE
- Computational methods
 - Spectral methods
 - Uncertainty quantification
 - Stochastic simulation algorithms
- Interdisciplinary mathematics
 - Mathematical biology
 - Statistical physics
 - Chemical engineering

Software Development

- C/C++, Python, Fortran
- Matlab, Mathematica, Maple
- Tex, L^AT_EX, HTML

Communication Skills

- Teaching university-level classes
- Extensive experience of scientific presentations
- Fluent in English, Russian, Armenian, reading French

EDUCATION

University of Michigan, Ann Arbor, MI, USA

Ph.D., Applied and Interdisciplinary Mathematics,
Department of Mathematics, 2007.

Moscow Institute of Physics and Technology, Moscow, Russia

B.S., Applied Mathematics and Physics,
Department of Applied Mathematics and Economics, 2002.

FELLOWSHIPS, AWARDS

Geophysical Fluid Dynamics Summer Fellowship, Woods Hole Oceanographic Institution, 2005.
Mathematics Department Summer Fellowship, University of Michigan, 2003.
MIPT Students' Math Olympiad, 3rd prize, 1998.
Soros Student Grant, Soros Foundation, 1997.
38th International Math Olympiad, Mar-del-Plata, Argentine, bronze medal, 1997.
Tournament of the Cities, Commonwealth of Independent States, 1st prize, 1996.
37th International Math Olympiad, Bombay, India, honorable mention, 1996.

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PROFESSIONAL EXPERIENCE

Sandia National Laboratories, Livermore, CA, USA

- *Postdoctoral Appointee* **July, 2007 - present**
Projects involved:
“Uncertainty Quantification in Stochastic Dynamical Systems”,
“Analysis of Stochasticity in Immune System Signaling Pathways”,
“Uncertainty Quantification for Large Scale Ocean Circulation Predictions”,
“Quantifying the Margin of High-Consequence Climate Change”.

University of Michigan, Ann Arbor, MI, USA

- *Graduate Student Research Assistant* **2002 - 2007**
Main project: “Fronts, Fluctuations and Growth”, supported by NSF and Michigan Center for Theoretical Physics.
Completed Ph.D. thesis on mean first passage times and large deviations in stochastic processes. Published in highly-ranked peer-reviewed journals.
- *Graduate Student Instructor* **2002 - 2003, 2006 - 2007**
Taught Precalculus and Calculus with full responsibilities for lectures, discussion sessions, homework assignments and quizzes.

Institute for System Programming of RAS, Moscow, Russia

- *Research Project Member* **2000 - 2002**
Main project: “Autonomous Adaptive Control in Car Suspension Systems”.
Provided theoretical and algorithmic support for the commercial project, as well as contributed to the software development.

ADDITIONAL INFORMATION

References, publication list and curriculum vita are available upon request.