

CONTACT
INFORMATION

Department Mathematics
John Widtsoe Bldg
The University of Utah
155 S 1400 E.,
Salt Lake City, Utah 84112-0090

Voice: (915) 313-1319
E-mail: bezdek (at) math.utah.edu
Web : www.math.utah.edu/~bezdek/

EDUCATION

The University of Utah, Salt Lake City, Utah, USA

Ph.D., Mathematics , August 2012 (expected graduation date: May 2016)

- *GPA:* 4.0
- *Advisor:* Davar Khoshnevisan

The University of Texas at El Paso, El Paso, Texas, USA

M.S., Mathematics, August 2010 - May 2012

- *GPA:* 4.0
- *Advisor:* M.C. Mariani
- *Thesis:* Analytical and numerical solution to the partial differential equation arising in financial modeling

Exchange program, FALL 2009

- *GPA:* 4.0

Czech Technical University in Prague, Faculty of Nuclear Sciences and Physical Engineering, Prague, Czech Republic

- **B.S., Mathematical Physics**, February 2010

PROFESSIONAL
EXPERIENCE

Savvysherpa, Inc.

Research Analyst

May 2015 - August 2015

Summer internship position, mainly focused on:

- First passage time problems arising in biology and EEG data.
- Analysis of statistical and machine learning methods and their applications on client's data.

LEADERSHIP
EXPERIENCE

Organization of workshops for incoming students.

Workshop for incoming students - Department of Mathematics

August 2014

Held at the University of Utah.

Summer review sessions - ENSO workshop

Summer 2012

Held at the University of Texas, El Paso.

SUBMITTED
WORK

On weak convergence of stochastic heat equation with colored noise, SUBMITTED, preprint available at <http://arxiv.org/abs/1507.05385>

ACCEPTED
PAPERS

Lévy models and scale invariance properties applied to Geophysics, Physica A: Statistical Mechanics and its Applications, Vol. 392, 2013, pp. 824-839, (with M. C. Mariani, I. Florescu, M.P. Beccar Varela, I. SenGupta and L. Serpa), doi:10.1016/j.physa.2012.11.007

Ising type models applied to Geophysics and high frequency market data, PHYSICA A, Volume 390, Issues 23-24, 1 November 2011, Pages 4396-4402, (with M. C. Mariani, L. Serpa, I. Florescu),

doi:10.1016/j.physa.2011.07.011

Numerical solutions for option pricing models including transaction costs and stochastic volatility, Acta Applicandae Mathematicae, Vol. 118, 2012, pp. 203-220, (with M. C. Mariani and I. SenGupta)

CONTRIBUTED
TALKS

1. *Numerical Solutions for Option Pricing Models Including Transaction Cost and Stochastic Volatility*, The 4th Annual Modeling High Frequency Data in Finance Conference, July 19-22, 2012, Stevens Institute of Technology, Hoboken, New Jersey
2. *Scale Invariance Properties Applied to Geophysics*, The 11th Joint NMSU/UTEP Workshop on Mathematics, Computer Science, and Computational Sciences, March 31, 2012, New Mexico State University, Las Cruces, New Mexico
3. *Numerical Solutions for Option Pricing Models Including Transaction Costs and Stochastic Volatility*, 10th Joint UTEP/NMSU Workshop on Mathematics, Computer Science, and Computational Sciences, November 5, 2011, University of Texas- El Paso, El Paso, Texas
4. *Ising type models applied to Geophysics and high frequency market data*, Modeling High Frequency Data in Finance 3, July 28-31, 2011, Stevens Institute of Technology, Hoboken, New Jersey
5. *Ising-Type Models Applied to Geophysics*, The 8th Joint UTEP/NMSU Workshop on Mathematics, Computer Science, and Computational Sciences, November 13, 2010, University of Texas- El Paso, El Paso, Texas

RESEARCH
INTERESTS

Stochastic processes, stochastic differential equations, Mathematical Finance, Numerical methods, Computational mathematics

HONORS AND
AWARDS

Merit scholarship, Czech Technical University in Prague, August 2006 - January 2009

WORKSHOPS AND
CONFERENCES
ATTENDED

1. *Conference in stochastic analysis and related topics*, May 20-22, 2015, Purdue University, West Lafayette, Indiana
2. *Seymour Sherman Lecture and Conference Probability and Statistical Physics*, May 15-17, 2015, Indiana University, Bloomington, Indiana
3. *36th Midwest Probability Colloquium*, October 9-11, 2014, Northwestern University, Evanston, Illinois
4. *Stochastic Partial Differential Equations*, July 7-18, 2014, Mathematical Sciences Research Institute, Berkeley, California
5. *Stochastic equations for complex systems: Theory and applications*, Rocky Mountain Mathematics Consortium Summer School-2014, May 27 - July 6, 2014, University of Wyoming, Laramie, Wyoming
6. *Frontier Probability Days 2014*, May 18-20, 2014, University of Arizona, Tucson, Arizona

TEACHING &
RESEARCH
EXPERIENCE

Department of Mathematics, University of Utah

Research Assistant

June 2014

- Investigating approximations to the Stochastic Heat Equation with white noise.
- Supported by NSF's grant DMS-1307470.

Teaching Assistant

August 2012 - present

Duties at various times have included primarily leading lab exercises and teaching.

- *Teaching*: Intro. to Statistical Inference - Fall 2014, Spring 2015, Fall 2015; Quantitative analysis - Fall 2013, Spring 2014
- *Labs*: Engineering Calculus 1 - Spring 2012; Advanced Engineering Calculus 1 - Fall 2012

Department of Mathematical Sciences, University of Texas at El Paso

Teaching Assistant

August 2010 - May 2012

Duties at various times have included grading, leading lab exercises and hours at Math Resource Center for Students.

- *Teaching*: Precalculus - MATH 1508 - Fall 2011
- *Labs*: Calculus - Fall 2010

- COMPUTER SKILLS
- *Languages*: **C/C++**, Python, Cython, some use of Unix shell scripts
 - *Pseudolanguages and Statistical tools*: SAS, R, Matlab, Mathematica
 - *Libraries*: OpenGL
 - *Applications*: \LaTeX , MS Office tools or equivalent (ECDL certificate)
 - *Operating Systems*: **Unix/Linux**, Windows
 - *Others*: Speed typing test (www.nuov.cz)
 - *Newly added/interested in*: OpenCL

- PERSONAL
- *Nationality*: Czech, German
 - *Languages*: Czech (*native*), English (*fluent*), French (*passive*)