

Olga Y. Savchuk

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RESEARCH INTERESTS

Nonparametric regression and density estimation. Methods of bandwidth selection. Density estimation after transformation of data.

EDUCATION

Ph.D. Statistics, August 2009

Texas A&M University,

Advisors: Jeffrey D. Hart, Simon J. Sheather.

Dissertation title: “Choosing a kernel for cross-validation”

M.S. Statistics, May 2006

Texas A&M University,

Advisor: Jeffrey D. Hart

M.S. Electrical Engineering, June 2002

*National Technical University of Ukraine,
Summa Cum Laude*

Advisor: Alexander I. Krasilnikov

B.S. Electrical Engineering, June 2000

*National Technical University of Ukraine,
Summa Cum Laude*

Advisor: Alexander I. Krasilnikov

WORK EXPERIENCE

August 2015 – present

Visiting Assistant Professor

Department of Mathematics and Statistics
University of South Florida, Tampa, FL

August 2013 – May 2015

Visiting Instructor

Department of Mathematics and Statistics
University of South Florida, Tampa, FL

August 2009 – August 2012

Visiting Assistant Professor

Department of Mathematical Sciences
Binghamton University, Binghamton, NY

September 2004 – May 2009

Teaching Assistant and Instructor

Texas A&M University, College Station, TX

Aug 2005 – May 2006

Statistical Consulting

Texas A&M University, College Station, TX

PAPERS

Submitted:

- (1) Savchuk, O.Y., Hart, J.D. “Theoretical Properties and Practical Performance of Fully Robust One-Sided Cross-Validation”. Preprint: arXiv:1602.08521
- (2) Savchuk, O.Y. “Almost Robust One-Sided Cross-Validation”.

Published:

- (3) Savchuk, O.Y., Hart, J.D., and Sheather, S.J. “One-Sided Cross-Validation for Nonsmooth Regression Functions”, *Journal of Nonparametric Statistics*. V.25 (2013), Issue 4, 889–904.
* Savchuk, O.Y., Hart, J.D., Sheather, S.J. Corrigendum to “One-sided cross-validation for nonsmooth regression functions”, *Journal of Nonparametric Statistics*, V.28 (2016), Issue 4, 875–877.
- (4) Savchuk, O.Y., Schick A. “Density Estimation for Power Transformations”, *Journal of Nonparametric Statistics*. V.25 (2013), Issue 3, 545–559.
- (5) Savchuk, O.Y., Hart, J.D., and Sheather, S.J. (2011), “An Empirical Study of Indirect Cross-validation”, *Nonparametric Statistics and Mixture Models: A Festschrift in Honor of Thomas P. Hettmansperger*. World Scientific Publishing, Singapore, 288–308.
- (6) Savchuk, O.Y., Hart, J.D., and Sheather S.J. (2010), “Indirect Cross-validation for Density Estimation”, *J. Amer. Statist. Assoc.*, 105(489), 415–423.
- (7) Krasilnikov, A.I., and Savchuk, O.Y. (2002), “Quadrature Formula for Numerical Computation of Poisson Spectrum Function of Fluctuation Signals”, *Electronics and Communication*, 17, 83–88 (in Russian).
- (8) Borovikova (maiden name of Savchuk), O.Y., and Krasilnikov, A.I. (2002), “Correlation Function of Linear Random Processes with Power Kernels”, *Electronics and Communication*, 14, 180–183 (in Russian).
- (9) Borovikova (maiden name of Savchuk), O.Y., Krasilnikov, A.I., and Myslovich, M.V. (2002), “Models of Poisson Spectrum Function in Problems of Diagnostics of Electrotechnical Devices”, *Technical Electrodynamics*, 4, 73–78 (in Russian).

GRANT APPLICATIONS:

- (1) NSF Proposal (DMS 1613111) “Using Kernel Estimators in Nonparametric Statistical Applications” – Fall 2015 (not funded).

TEACHING

University of South Florida

STA 5526

Nonparametric Statistics

(Graduate Level)

Spring 2014

STA 4502

Nonparametric Statistical Methods

(Undergraduate Level)

Spring 2014

STA 4321

Essentials of Statistics

Fall 2013 – Fall 2016

STA 2023

Introductory Statistics I

(360 students)

Fall 2013

Binghamton University

Math 327

Probability with Statistical Methods

(65 students), Spring 2012

Math 148

Elementary Statistics for Biologists

(116 students)

Spring 2010, Fall 2010, Spring 2011, Fall 2011

Math 222

Calculus II (40 students)

Fall 2009, Spring 2012

Math 220

Calculus for Business and Management

(50 students), Fall 2009

Texas A&M University

Stat 303

Statistical Methods (50 students)

Spring 2009

AWARDS

June 2008

2008 Emanuel Parzen

Graduate Research Fellowship Award,

Department of Statistics, *Texas A&M University*

September 2004 – May 2005

Regent's Fellowship,

The College of Science,

Texas A&M University

September 2004 – May 2005

AUF Fellowship,

The College of Science,

Texas A&M University

November 2002

Third award in Contest of Master's theses,

National Technical University of Ukraine

September 2002

First award in Contest of Master's theses,

Department of Electronics,

National Technical University of Ukraine

PROFESSIONAL SERVICE

REFEREE for the following journals:

- (1) Canadian Journal of Statistics
- (2) Statistics and Probability Letters
- (3) Journal of Nonparametric Statistics
- (4) Computational Statistics and Data Analysis
- (5) TEST – An Official Journal of the Spanish Society of Statistics and Operations Research
- (6) Applied Mathematics and Computation

Session Chair:

2015 Annual Florida Chapter Meeting of ASA Program.

ADMINISTRATION

- (1) Changing STA 4321 “Essentials of Statistics” to STA 4321 “Introduction to Mathematical Statistics I”.
- (2) Changing STA 4930 “Advanced Essentials of Statistics” to STA 4443 “Introduction to Mathematical Statistics II”.
- (3) Reworking the requirements for Statistics Major.

TALKS

February 2015	“One-Sided Cross-Validation for Nonsmooth Regression Functions”, Florida Chapter Meeting of ASA, Tampa, Florida.
February 2013	“Indirect Cross-Validation for Density Estimation”, <i>University of South Florida</i> .
September 2010	“Bayesian Statistics”, <i>Binghamton University</i> .
November 2009	“Cross-Validation for Density Estimation”, <i>Binghamton University</i> .
February 2009	“Choosing a Kernel for Cross-Validation”, <i>Binghamton University</i> .
January 2009	“Choosing a Kernel for Cross-Validation”, <i>Texas A&M University</i> .

SKILLS

Computer

R (proficient), S-Plus, Maple, SPSS, SAS, MathCad, MatLab, L^AT_EX, Microsoft Office.

Languages

English (fluent), Russian (native), Ukrainian (native).