

# MASHA KOCHERGINSKY

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Department of Statistics  
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## Education

January 2003      **Ph.D., Statistics**, University of Illinois, Urbana-Champaign (expected)  
Research Area: Bootstrap and Computational Methods in Statistics  
Thesis: *Markov Chain Marginal Bootstrap and Transformations*  
Advisor: Professor Xuming He

August 1998      **M.S., Statistics**, University of Illinois, Urbana-Champaign

December 1996    **B.S., Statistics and Mathematics**, University of Illinois, Urbana-Champaign

## Professional Experience

Fall 2001-present      **Research Assistant**, University of Illinois  
Advisor: Xuming He

Spring 1998-present    **Statistical Consultant**, Illinois Statistics Office, University of Illinois  
Major clients include:

- Federal Emergency Management Agency (FEMA)
- Child and Family Research Center (CFRC) at the University of Illinois
- W. M. Keck Center for Comparative and Functional Genomics at the University of Illinois

Spring 1998-Summer 2001    **Teaching Assistant**, Department of Statistics, University of Illinois

- Introduction to Mathematical Statistics and Probability I
- Introduction to Statistics at precalculus level

Summer 1996, 1997      **Summer Intern**, Wolfram Research, Inc., Champaign, IL  
Marketing and Creative Services and Software Quality Assurance departments

June, 1997              **Statistical Consultant**, Oster Research Group, Des Moines, IA

1994-1995              **Lab Assistant**, Calculus & *Mathematica* project, Department of Mathematics,  
University of Illinois

1993-1995              **Student Assistant**, Slavic and Mathematics Libraries, University of Illinois

## Statistics Experience

Research Interests

Computational Statistics; Bootstrap methods

Coursework

Applied Regression and Design, Analysis of Variance, Sampling and Categorical Data, Time Series, Topics in Biometry, Analysis of Partially Observed Data, Mixed Models and Longitudinal Data, Statistical Computing, Multivariate Analysis, Linear and Nonlinear Programming, Mathematical Statistics, Large Sample Theory, Probability and Measure Theory

## Computer Skills

Statistical Software  
Computer Languages  
Other

SAS, Splus, R, SPSS, CART, *Mathematica*  
C/C++, HTML  
UNIX, MS Office,  $\text{\LaTeX}$

## Presentations

August, 2002

**Reparameterization in Markov Chain Marginal Bootstrap.** *2002 Joint Statistical Meeting, New York City, New York*

April, 1999

**Analysis of Nuclei Fluorescence Histograms Using Non-Linear Functions of Wavelets.** *11th Annual Conference on Applied Statistics in Agriculture, Kansas State University*

## Publications

Aref, S., Kocherginsky, M., Northcott, C.A., and Rayburn, L.A. (1999), "Analysis of nuclei fluorescence histograms using nonlinear functions or wavelets." *Proceedings of Eleventh Kansas State University Conference on Applied Statistics in Agriculture*, pp. 70-82.

He, X., Kocherginsky, M., Lin, N., Simpson, D.G. (in preparation) "Causal Analysis and Model Selection Using Child Welfare Data: A Case Study of Racial Imbalance in the Child Welfare System."

## Honors and Awards

First Prize, Capital One Financial Data Challenge Competition, 2001. (*Summer 2001*)

Outstanding Rating, "University of Illinois Incomplete List of Teachers Ranked as Excellent by their Students." (*Spring 1999, Spring 2000*)

High Distinction B.S., Department of Statistics, University of Illinois (*Fall, 1996*)

Dean's List (*1994-1995*)

Golden Key National Honor Society

## Activities

**The Russian Club**, University of Illinois. President (1999-2000). Organizing film series, general meetings, talks related to Russian and East European Studies

**Society of Undergraduate Mathematicians**, University of Illinois. Co-President (1995-1996), Secretary (1994-1995). Organizing Mathematics talks and social activities for undergraduate students

## References

**Prof. Xuming He**, Director of Consulting Services, Department of Statistics, University of Illinois

**Prof. Douglas Simpson**, Chair, Department of Statistics, University of Illinois

**Dr. Susanne Aref**, Manager of Consulting Services, Department of Statistics, University of Illinois

**Dr. Peter Imrey**, Cleveland Clinic Foundation

## Citizenship

I am a citizen of the United States of America