Curriculum Vitae Andrea Krajina

Contact Information

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Professional Experience

04/2012-present: Junior Professor (non tenure-track assistant professor)
Institute for Mathematical Stochastics
University of Göttingen, Germany
Positive midterm evaluation in *04/2015*

10/2010-03/2012: Postdoctoral Fellow
Institute for Mathematical Stochastics, University of Göttingen, Germany

04/2010-09/2010: Postdoctoral Fellow
Multivariate Risk Modeling group, EURANDOM, Eindhoven University of Technology, The Netherlands

09/2005-09/2009: PhD Researcher
Department of Econometrics & OR, Tilburg University, The Netherlands

03/2004-10/2010: Teaching Assistant
Department of Mathematics, University of J.J. Strossmayer, Osijek, Croatia
(actively: 03/2004-08/2005, and 11/2009-03/2010; on leave for other time periods)

Education

09/2005-10/2009: PhD Candidate
Department of Econometrics & OR, Tilburg University, The Netherlands
Thesis Title: An M-Estimator of Multivariate Tail Dependence
Graduation Date: April 23, 2010
Supervisors: Prof. Dr. John H.J. Einmahl and Prof. Dr. Johan Segers

09/1999-02/2004: Diploma in Mathematics and Computer Science (MSc level)
Department of Mathematics, University of J.J. Strossmayer, Osijek, Croatia

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Research Interests

Multivariate and spatial extreme value theory; Statistics of extremes; Applications of extreme value theory in risk management and climatology; Empirical likelihood; Non-parametric Bayesian methods (in extreme value theory)

List of Publications

An M-Estimator of Spatial Tail Dependence, with J.H.J. Einmahl, A. Kiriliouk and J. Segers, **Journal of the Royal Statistical Society: Series B**, 78 (2016), 275-298.

Estimating Extreme Bivariate Quantile Regions, with J.H.J. Einmahl and L. de Haan, **Extremes**, 16(2013), 121-145.

An M-Estimator for Tail Dependence in Arbitrary Dimensions, with J.H.J. Einmahl and J. Segers, **Annals of Statistics**, 40(2012), 1764-1793.

A Method of Moments Estimator of Tail Dependence in Elliptical Copula Models, **Journal of Statistical Planning and Inference**, 142(2012), 1811-1823.

A Method of Moments Estimator of Tail Dependence, with J.H.J. Einmahl and J. Segers, **Bernoulli**, 14(2008), 1003-1026.

Work in Progress

Empirical likelihood based testing for multivariate regular variation, with John H.J. Einmahl

A Bayesian estimator of the parameters of the binomial distribution, with Laura Fee Schneider, Johannes Schmidt-Hieber, Axel Munk and Timo Aspelmeier

A nonparametric estimator of the extremal index, with Juan Juan Cai

A least squares estimator of the optimal sample fraction in univariate extreme value theory, with Laura Fee Schneider and Tatyana Krivobokova

An empirical likelihood based estimator of high-dimensional tail dependence, with Gregor von Bülow

An extreme value theory based definition of functional data depth, with Gordon Schücker

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Invited Seminar Talks

Department of Decision Sciences, **Bocconi University**, Italy *03/2017*; Department of Mathematics, **University of Osijek**, Croatia, *09/2015*, *01/2010* and *06/2007*; ECARES, **Université Libre de Brussels**, Belgium, *03/2015*; Faculty of Business and Economics, **University of Lausanne**, Switzerland, *11/2014*; Faculty of Electrical Engineering, Mathematics and Computer Science, **Delft University of Technology**, The Netherlands, *10/2014*; Faculty of Statistics, **Technical University Dortmund**, Germany, *05/2011*; Department of Econometrics & OR, **Tilburg University**, The Netherlands, *06/2009* and *03/2010*; Eurandom, **Eindhoven University of Technology**, *05/2009*; Institute of Bioinformatics, **German Research Center for Environmental Health**, Munich, Germany, *11/2007*; Faculty of Mathematics, **Technical University of Munich**, Germany, *10/2007*; **Université Catholique de Louvain**, Louvain-la-Neuve, Belgium, *10/2007*.

Invited Conference Presentations

"CMStatistics", organizer of an invited session, Seville, Spain, *12/2016*

"Statistische Woche", organizer of the *Young-Academics Mini-Symposium*, Augsburg, Germany, *09/2016*

"SFB Workshop on New Developments in Econometrics and Time Series", Bochum, Germany, *06/2015*

"The 59th World Statistics Congress", Hong Kong, China, *08/2013*

"The ASTIN Colloquium", The Hague, The Netherlands, *05/2013*

"The 2nd IMS Asia Pacific Rim Meeting", Tsukuba, Japan, *07/2012*

"1st Conference of the International Society for NonParametric Statistics", Chalkidiki, Greece, *06/2012*

"The Workshop on Multivariate and Spatial Extremes", University of Beira Interior, Covilhã, Portugal, *10/2011*

"Eurandom-ISI Workshop on Actuarial and Financial Statistics", EURANDOM, Eindhoven, The Netherlands, *08/2011*

"28th European Meeting of Statisticians", Piraeus, Greece, *08/2010*

"6th International Conference on Extreme Value Analysis", Fort Collins, Colorado, USA, *06/2009*

Research Visits

27-31/Mar/2017: Department of Decision Sciences, **Bocconi University**, Italy; *host*: Dr. Simone Padoan

22-25/Jul/2016, *11-13/Dec/2013* and *10-19/May/2011*: Department of Econometrics & OR, **Tilburg University**, The Netherlands; *host*: Prof. Dr. John J.H. Einmahl

24-27/Nov/2014: Faculty of Business and Economics, **University of Lausanne**, Switzerland; *hosts*: Prof. Dr. Enkelejd Hashorva and Dr. Sebastian Engelke

17-31/Oct/2014: Faculty of Electrical Engineering, Mathematics and Computer Science, **Delft University of Technology**, The Netherlands; *host*: Dr. Juan-Juan Cai

01-03/Sep/2014: School of Business Informatics and Mathematics, **University of Mannheim**, Germany; *host*: Dr. Kirstin Strokorb

Oct-Dec/2007: Faculty of Mathematics, **Technical University Munich**, Germany; *host*: Prof. Dr. Claudia Klüppelberg

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Refereeing

Annals of Statistics; Bernoulli; Extremes; Journal of Financial Econometrics; Journal of Nonparametric Statistics; Journal of the Royal Statistical Society: Series B (Statistical Methodology); Journal of Statistical Computation and Simulation; Journal of Statistical Planning and Inference; Kybernetika; Metrika; Scandinavian Journal of Statistics; TEST

Teaching

University of Göttingen

Grundlagen der Stochastik (Introduction to Stochastics), undergraduate lectures, WS 2016/17

Maß- und Wahrscheinlichkeitstheorie (Measure and Probability Theory), undergraduate lectures, *SS 2016*

Statistics of Extremes, graduate seminar, SS 2016

Extreme Value Theory, graduate lectures, WS 2015/16

Applied Statistics, undergraduate seminar, jointly with Tatyana Krivobokova, WS 2015/16

Statistik in den Geowissenschaften (Statistics in Geosciences), undergraduate lectures for students of Faculty of Geosciences and Geography, SS 2015

Applied Statistics, undergraduate and graduate seminar, jointly with Timo Aspelmeier and Axel Munk, WS 2014/15

Angewandte Statistik (Applied Statistics), undergraduate lectures, SS 2013 & 2014

Angewandte Statistik (Applied Statistics), undergraduate seminar, jointly with Axel Munk, WS 2013/14

Advanced programming with R, Computer Tutorial, WS 2012/13

Selected Topics in Multivariate and Spatial Extremes, graduate lectures and seminar, WS 2012/13

Extreme Value Theory and Statistics of Extremes, graduate lectures and seminar, SS 2012

Tilburg University

Schatten en Toetsen (Introduction to Mathematical Statistics), tutorial for 2nd year Econometrics students, 2008

Quantitative Methods 1, tutorial for 1st year International Business students, 2007 & 2008

Statistics 1, tutorial for 1st year Economics students, 2007 & 2008

Introduction to Quantitative Methods for BS, tutorial for 1st year International Business students, 2005 & 2006

University of Osijek

Probability, lectures and instruction class for 1st year Master of Financial and Business Mathematics students, 2009/2010

Statistics, instruction class for 1st year Master students at Faculty of Food Technology, 2009/2010

Mathematical Statistics, instruction class for 4th year Mathematics students, 2005

Linear Programming, instruction class for 4th year Mathematics students, 2005

Financial Mathematics, instruction class for 4th year Mathematics students, 2004

Linear Algebra 1, instruction class for 4th year Mathematics students, 2004

Doctoral Theses Supervision

First supervisor: Laura Fee Schneider, "Nonparametric Bayesian approach to modeling nonstationarity in extremes", started in February 2016 (funded by GRK 2088)

Second supervisor: Kirstin Strokorb, "Characterization and construction of max-stable processes", 2013

Master Theses Supervision

Rolf Sievers, *Empirical likelihood based testing for generalized Pareto distribution*, in preparation, expected in 2017

Gregor von Bülow, *An empirical likelihood based estimator of high-dimensional tail dependence*, in preparation, expected in 2017

Gordon Schücker, *An application of functional data-depth in extreme value theory*, in preparation, expected in 2017

Andreas Habig, *Empirical likelihood based estimation of the stable tail dependence function*, completed, 2016

Martin Müller, *Estimation of the extremal index*, completed, 2016

External Funding

Associated principal investigator in the *GRK 2088 "Discovering structure in complex data: Statistics meets Optimization and Inverse Problems"* (3.649.780 Euro)

Other

Conference in honor of the 50th Birthday of Axel Munk, Göttingen *11/2017*, member of the organizing committee.

Equal-opportunity representative (Gleichstellungsbeauftragte) of the Institute for Mathematical Stochastics within the Faculty of Mathematics and Computer Science, University of Göttingen, *08/2013-08/2016*

Co-organizer of the seminar series "Stochastisches Kolloquium" at the Institute for Mathematical Stohastics, jointly with Anja Frakstein, *10/2012-12/2013*, and Pia Weibelzahl, *01/2014-present*

Computer Experience

R, C, Matlab, Mathematica, LaTeX

Languages

Croatian (native), English (fluent), German (near fluent), Dutch (basics)