SIMON A. BRODA

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Department of Quantitative Economics
University of Amsterdam
Valckenierstraat 65–67
NL-1018XE Amsterdam

PERSONAL INFORMATION

Date of Birth January 21st, 1977

Citizenship German

CURRENT AFFILIATIONS

Department of Quantitative Economics, University of Amsterdam

Assistant Professor of Econometrics 2009 – present

Tinbergen Institute, Amsterdam

Research Fellow 2012 – present

PREVIOUS AFFILIATIONS

Swiss Banking Institute, University of Zürich, Switzerland

Post-doctoral Research Fellow in Econometrics 2007 – 2009
Research Assistant in Econometrics 2003 – 2007

University of Kiel, Germany

Research Assistant in Finance 2002 – 2003

Student Assistant in Econometrics 2000 – 2002

EDUCATION

Ph.D. in Economics, University of Zürich, Switzerland 2007

Degree: "Dr. oec. publ.". Grade: *Summa cum laude*. Dissertation: a S.A.F.E. approach to risk: Saddlepoint Approximations in Financial Econometrics. Advisors: Prof. Dr. Marc S. Paolella, Prof. Michael Wolf, Ph.D.

B.A./M.A. in Business Administration, University of Kiel, Germany 2002

Degree: "Diplom-Kaufmann". Grade: *Excellent (1.3)*. Specialization: Econometrics and Statistics. Thesis: Small Sample Aspects in Unit Root Inference.

Final Secondary School Examination, Gymnasium Wellingdorf, Germany 1996

Degree: "Allgemeine Hochschulreife". Grade: *Good (1.7)*. Majors: Mathematics, English Language.

GRANTS

Swiss National Science Foundation Grant No. 503242, 42.260 CHF p.a. 2006-2009

AWARDS

Lecturer of the Year

Master in International Finance, University of Amsterdam, class of 2010-2011.

Master in International Finance, University of Amsterdam, class of 2011-2012.

Erich Schneider Memorial Award

Award for the best diploma thesis in Economics, University of Kiel, 2002.

RESEARCH INTERESTS

Risk Measurement, Multivariate GARCH Models, Transform Inversion Methods, Saddlepoint Approximations, Panel Data.

PUBLICATIONS

Peer-Reviewed Journal Articles

"A Mix-Stable GARCH Model" (with M. Haas, J. Krause, M. Paolella, and S. Steude), *Journal of Econometrics*, Volume 172, 2013, 292–306. http://dx.doi.org/10.1016/j.jeconom.2012.08.012

"The Expected Shortfall of Quadratic Portfolios with Heavy-Tailed Risk Factors", *Mathematical Finance*, Volume 22(4), 2012, pp. 710–728. http://dx.doi.org/10.1111/j.1467-9965.2011.00482.x

"CHICAGO: A Fast and Accurate Method for Portfolio Risk Calculation" (with M. Paolella), *Journal of Financial Econometrics*, Vol. 7(5), 2009, pp. 412-436. http://dx.doi.org/10.1093/jjfinec/nbp011

"Assessing and Improving the Performance of Nearly Efficient Unit Root Tests in Small Samples" (with K. Carstensen and M. Paolella), *Econometric Reviews*, Volume 28(5), 2009, pp. 468–494. http://dx.doi.org/10.1080/07474930802467282

"Evaluating the Density of Ratios of Noncentral Quadratic Forms in Normal Variables" (with M. Paolella), *Computational Statistics & Data Analysis*, Volume 53(4), 2009, pp. 1264-1270. http://dx.doi.org/10.1016/j.csda.2008.10.035

"Bias-Adjusted Estimation in the ARX(1) Model" (with K. Carstensen and M. Paolella), *Computational Statistics & Data Analysis*, Volume 51(7), 2007, pp. 3355–3367. http://dx.doi.org/10.1016/j.csda.2006.07.009

"Saddlepoint Approximations for the Doubly Noncentral t Distribution" (with M. Paolella), *Computational Statistics & Data Analysis*, Volume 51(6), 2007, pp. 2907–2918. http://dx.doi.org/10.1016/j.csda.2006.11.024

Contributions to Edited Volumes

"Saddlepoint Approximations: A Review and Some New Applications", (with M. Paolella), in: Gentle, J. E., W. K. Härdle and Y. Mori, (eds.), *Handbook of Computational Statistics*, 2nd edition, 2012, Springer Verlag, Berlin, pp. 953–983. http://dx.doi.org/10.1007/978-3-642-21551-3_32

"Expected Shortfall for Distributions in Finance", (with M. Paolella), in: Cizek, P., W. K. Härdle and R. Weron (eds.), *Statistical Tools for Finance and Insurance*, 2nd edition, 2011, Springer Verlag, Berlin, pp. 57–99. http://dx.doi.org/10.1007/978-3-642-18062-0_2

Other Publications

"Optimal steering vector adaptation for linear filters leading to robust beamforming" (with M. Natora, F. Franke and K. Obermayer), *Proceedings of the 4th International Symposium on Communications, Control and Signal Processing*, 2010. http://dx.doi.org/10.1109/ISCCSP.2010.5463496

Work in Progress

"Tail Probabilities and Partial Moments for Quadratic Forms in Multivariate Generalized Hyperbolic Random Vectors", Tinbergen Institute Discussion Paper No. 13-001/III. http://www.tinbergen.nl/discussionpaper/?paper=2030

"Testing for Sphericity in Panels", 2010, *UvA Econometrics Discussion Paper 2010/09*, University of Amsterdam. http://dare.uva.nl/en/record/410871

"Saddlepoint Approximation of Expected Shortfall for Transformed Means" (with M. Paolella), *UvA Econometrics Discussion Paper 2010/08*, University of Amsterdam. http://dare.uva.nl/en/record/410525

"Approximately Exact Inference in Dynamic Panel Models: a QUEST for Unbiasedness" (with M. Paolella and Y. Tchopourian), 2007, Working Paper, University of Zürich.

THESIS SUPERVISION

Robert Bitca (MSc Econometrics, 2010) *The Effect of Wind Power Production on Electricity Prices.*

Malte Gabriel (BSc Finance, 2010) *Investigating the Marginal Productivity Paradox – The Determinants of Private Equity Investments in Developing Countries.*

Maria-Anna Setta (Master in International Finance (MIF), 2010) *Backtesting Trading Strategies Based on Mean-ES Optimal Portfolios.*

Sergio Dankerlui (MSc Finance, 2010) *The Role of Market Liquidity in the Asset Pricing Process: Evidence from the Dutch Stock Market.*

Marcel Holtslag (MSc Econometrics, 2011) *Risk Management with the Multivariate Generalized Hyperbolic Distribution, Calibrated by the Multi-Cycle EM Algorithm.*

Pim Ritmeijer (MSc Econometrics, 2011) *Periodic Modeling of Hourly and Quaterdiurnal Electricity Prices* (working title).

Steven Verschuren (MSc Econometrics, 2011) *Copula-GARCH models to Estimate Capital Requirements for Pension Funds.*

Pieter Dohmen (MSc Econometrics, 2011) *MARCHing for the Regime: Do regime-based Multivariate ARCH models improve VaR forecasts?.*

Mike Halters (MIF, 2011) *Valuation of Commodity Options* (working title).

Erwin Potjer (MIF, 2011) *Correlations in Asset Markets with Increasing Derivatives Volumes.*

Chiel Peters (MSc Econometrics, 2012) *Historical vs. Parametric: A Comparison of Different Value-at-Risk Methods.*

Karim Bennani (MSc Econometrics, 2012) *Numerical Methods for Alternative Option Pricing Models and Model Calibration.*

Maksym Korotkiy (MIF, 2012) *Lead-Lag Relationship in Implied Volatility Time Series for DAX Index Options.*

Che-yu Lin (MIF, 2012) *Empirical Study of Stock Volatility in Emerging and Developed Countries.*

Britt Schuurs (MSc Econometrics, 2012) *Dispersion Trading — Empirical Evidence on the Hang Seng Index using a Cointegration Approach.*

TEACHING EXPERIENCE

Most recent course evaluations are provided where available.

Graduate Level

Stochastic Calculus (Amsterdam)	4.4/5 $(2012, n = 30)$.
Financial Econometrics (Amsterdam)	4.0/5 $(2013, n = 17)$.
MIF Computational Finance with Matlab (Amsterdam)	4.6/5 $(2012, n = 10)$.
MIF Financial Econometrics (Amsterdam)	4.3/5 $(2012, n = 17)$.
MIF Advanced Financial Econometrics (Amsterdam)	4.0/5 $(2013, n = 06)$.
Probability Theory and Mathematical Statistics (Zürich, TA)	
Financial Econometrics (Zürich, TA)	

Undergraduate Level

Econometrics (Zürich, TA)

Introduction to Financial Econometrics and Mathematical Statistics (Zürich, TA)

Statistical and Time-Series Methods in Finance (Zürich, TA)

CONFERENCE PRESENTATIONS

20th International Conference on Computational Statistics (COMPSTAT), Limassol, Cyprus, 2012.

5th CSDA International Conference on Computational and Financial Econometrics, London, UK, 2011.

Netherlands Econometrics Study Group meeting, Rotterdam, The Netherlands, 2011.

16th International Panel Data Conference, Amsterdam, The Netherlands, 2010.

3rd International Conference on Computational and Financial Econometrics, Limassol, Cyprus, 2009.

6th International Conference on Computational Management Science, Geneva, Switzerland, 2009.

2nd International Workshop on Computational and Financial Econometrics, Neuchatel, Switzerland, 2008.

2nd International Conference on Mathematics and Statistics, Athens, Greece, 2008.

Workshop on Quantitative Finance, Kiel, Germany, 2007.

International Workshop on Computational and Financial Econometrics, Geneva, Switzerland, 2007.

12th International Conference on Computing in Economics and Finance, Limassol, Cyprus, 2006.

Workshop on Factor Identification in High Dimensional Time Series, Berlin, Germany, 2005

ACADEMIC SERVICE

Organizer, Tinbergen Institute Amsterdam Econometrics Seminar	2009 – present
Undergraduate Student Advisor ("Studienberater"), University of Zürich	2005 – 2009

PEER REVIEW

Referee for *Applied Mathematics and Computation*, *Communications in Statistics – Simulation and Computation*, *Computational Statistics & Data Analysis*, *Economics*, *International Journal of Computer Mathematics*, *Journal of Econometrics*, *Mathematical Finance*.

LANGUAGE SKILLS

German Native speaker

English Fluent

Dutch Intermediate

French Basic

This curriculum vitae is current as of June 10, 2013.