Nestor Parolya

Leibniz University Hannover
School of Economics and Management
Institute of Statistics
Königsworther Platz 1, 30167 Hannover
Germany

Email: parolya@statistik.uni-hannover.de
URL: www.statistik.uni-hannover.de/parolyao

Home address: Heggerstr. 63, 45525 Hattingen, Germany
Born: May 16, 1988 – Lviv (Lemberg), Ukraine
Marital status: married, two children (Marco 02.09.2016 and Damian 12.10.2018)
Nationality: Ukrainian
Languages: Ukrainian - native, German - fluent (proficiency level), English - fluent, Russian - fluent, Polish - basic

CURRENT POSITION

Assistant Professor (W1) (positively evaluated) in Financial Econometrics
Institute of Statistics, Leibniz University Hannover

AREAS OF SPECIALIZATION

Random Matrix Theory with Applications in Statistics and Finance
High-Dimensional Data Analysis and Large Sample Covariance Matrices
Quantitative Risk and Portfolio Management

ACADEMIC CAREER

Feb. 2018 - Jul.2018 Stand-in Professor (W3) in Statistics, Department of Economics, Mannheim University

Oct. 2017 - Jan. 2018 Stand-in Professor (W3) in Econometrics, Alfred-Weber-Institute for Economics, Heidelberg University

April 2014- Assistant Professor (W1) in Financial Econometrics (positively evaluated)
School of Economics and Management, Leibniz University Hannover, Germany

2013 - 2014 Research Fellow/ Postdoc
Department of Statistics and Econometrics, Ruhr University Bochum, Germany

2010 - 2013 Research Fellow/ PhD student
Department of Statistics, European University Viadrina, Germany

EDUCATION

2013 PhD in Economics (summa cum laude), European University Viadrina, Germany
2010 MSc in Mathematical Statistics (distinction), National University of Lviv/Lemberg, Ukraine
2009 BSc in Mathematics (distinction), National University of Lviv/Lemberg, Ukraine

GRANTS, HONORS & AWARDS

2010 Doctoral Scholarship from DFG (Deutsche Forschungsgemeinschaft)
2017 Listed on the 3rd place for W2 Professorship in "Mathematical Data Science", Department of Mathematics, RWTH Aachen

PUBLICATIONS & TALKS

JOURNAL ARTICLES

2018 Testing for Independence of Large Dimensional Vectors, with T. Bodnar and H. Dette. arxiv.org, accepted for publication in the *Annals of Statistics*.

2018 Central limit theorems for functionals of large sample covariance matrix and mean vector in matrix-variate location mixture of normal distributions, with T. Bodnar and S. Mazur, accepted for publication in *Scandinavian Journal of Statistics*. arxiv.org

2018 On the product of a singular Wishart matrix and a singular Gaussian vector in high dimension, with T. Bodnar, S. Mazur and S. Muhinyuza, accepted for publication in *Theory of Probability and Mathematical Statistics* arxiv.org

2018 Optimal linear shrinkage estimation of high-dimensional mean vector, with T. Bodnar and O. Okhrin, accepted for publication in *Journal of Multivariate Analysis*. arxiv.org

2018 Estimation of the Global Minimum Variance Portfolio in High Dimensions, with T. Bodnar and W. Schmid. *European Journal of Operational Research*, 266, 371-390.

2017 'To Have What They are Having': Portfolio Choice for Mimicking Mean-Variance Savers, with V. Golosnoy, *Quantitative Finance*, 11, 1645-1653.

2016 Spectral analysis of the Moore-Penrose inverse of a large dimensional sample covariance matrix, (with T. Bodnar and H. Dette). *Journal of Multivariate Analysis* 148: 160-172.

2016 Direct Shrinkage Estimation of Large Dimensional Precision Matrix, (with T. Bodnar and A. K. Gupta), *Journal of Multivariate Analysis* 146: 223-236.

2015 On the Exact Solution of the Multi-Period Portfolio Choice Problem for an Exponential Utility under Return Predictability, (with T. Bodnar and W. Schmid). *European Journal of Operational Research* 246: 528-542.

2015 A Closed-Form Solution of the Multi-Period Portfolio Choice Problem for a Quadratic Utility Function, (with T. Bodnar and W. Schmid). *Annals of Operations Research* 229: 121-158.

2014 On the Strong Convergence of the Optimal Linear Shrinkage Estimator for the Large Dimensional Covariance Matrix, with T. Bodnar and A. K. Gupta. *Journal of Multivariate Analysis* 132: 215-228.

2013 On the Equivalence of Quadratic Optimization Problems Commonly Used in Portfolio Theory, with T. Bodnar and W. Schmid. *European Journal of Operational Research* 229: 637-644.

OTHER REFEREED PUBLICATIONS

2016 The Exact Solution of Multi-Period Portfolio Choice Problem with Exponential Utility, in: Lübbecke, M., Koster, A., Letmathe, P., Madlener, R., Peis, B., Walther, G. (Eds.), *Operations Research Proceedings 2014, Selected Papers of the Annual International Conference of the German Operations Research Society*, Springer, 2016, (with T. Bodnar and W. Schmid).

2014

Optimal linear shrinkage estimator for the large dimensional precision matrix, in: Bongiorno E. G., Salinelli E:, Goia A: and Vieu P. (eds.), *IWFOS 2014 - Contributions in infinite-dimensional statistics and related topics*, Societa Editrice Esculapio (with T. Bodnar and A.K. Gupta).

2010 Killed Markov Decision Processes on Finite Time Interval for Countable Models (with Y. Yeleyko), *Transactions of the NAS of Azerbaijan: Mathematics series of Physical-Technical and Mathematical science*, (2010), vol. XXX, No 4, 141-152.

2010 Killed Markov Decision Processes on Finite Time Interval for Finite Models (with Y. Yeleyko), *Bulletin of the University Lviv Series: Mechanics & Mathematics* (in Ukrainian), (2010), 72, 243-254.

SUBMITTED WORKING PAPERS

2018 Tests for weights of global minimum variance portfolio in a high-dimensional setting, with T. Bodnar, S. Dmytriv and W. Schmid, invited for resubmission to *IEEE Transactions of Signal Processing*. arxiv.org

2018 Optimal shrinkage-based portfolio selection in high dimensions, with T. Bodnar and Y. Okhrin. arxiv.org.

2018 Mean-variance efficiency of optimal power and logarithmic utility portfolios, with T. Bodnar, D. Ivasiuk and W. Schmid. submitted. arxiv.org

2017 Discriminant analysis in small and large dimensions, with T. Bodnar, S. Mazur and E. Ngailo. submitted. arxiv.org

2017 Bayesian estimation of the multi-period portfolio weights for an exponential utility, with D. Bauder, T. Bodnar and W. Schmid. submitted. arxiv.org

2017 Bayesian mean-variance analysis: Optimal portfolio selection under parameter uncertainty, with D. Bauder, T. Bodnar and W. Schmid. submitted. arxiv.org

CONFERENCE PRESENTATIONS & INVITED TALKS

2018 Invited talk at workshop "Long Memory", University of Hannover, 25-26th of October 2018
European Meeting of the Econometric Society (ESEM), Cologne University, 27-31 August
German Probability and Statistics Days 2018, Freiburg University, 27. Feb. - 1. March

2017 European Meeting of Statisticians (EMS) 2017, University of Helsinki, Finland, 24-28 July
Invited talk at 13th Workshop on "Stochastic Models, Statistics and Their Applications", Humboldt University, Berlin, 20-24 February

2016 Invited talk at Research Seminar in "Mathematical Econometrics, Stochastics and Finance", Mannheim University, 31 May
Statistics under one Umbrella, Göttingen University, 14-18 March
Invited talk at Research Seminar, Chair of Statistics, Viadrina University, Germany, 9 March
German Probability and Statistics Days 2016, Ruhr University Bochum, 1-4 March

2015 8th International Conference of the ERCIM WG on Computational and Methodological Statistics, London, UK, 12-14 December
Invited talk at Research Seminar, VWL Seminar, Ruhr University Bochum, 25 November
Viadrina Days on Empirical Economics, European University Viadrina, Frankfurt (Oder), 22-23 October
Statistische Woche 2015, Helmut-Schmidt University, Germany, 14-18 September
11th World Congress of the Econometric Society, Montreal, Canada, 17-21 August
European Meeting of Statisticians (EMS) 2015, Vrije University Amsterdam, Netherlands, 6-10 July
Invited talk at Research Seminar, Chair of Statistics, Lund University, Sweden, 16 May

2014 7th International Conference of the ERCIM WG on Computational and Methodological Statistics, University of Pisa, Italy, 6-8 December
5th CEQURA: Conference on Advances in Financial and Insurance Risk Management 2014, Ludwig-Maximilians-Universität München, Germany, 1-2 October
Statistische Woche 2014, Leibniz University of Hannover, Germany, 16-19 September

Operations Research 2014: Business Analytics and Optimization, RWTH Aachen University, Germany, 2-5 September
Random Matrix Theory: Foundations and Applications 2014, Jagiellonian University, Krakow, Poland, 1-6 July
11th German Probability and Statistics Days 2014, Ulm University, Germany, 4-7 March

2013 Invited talk at Research Seminar, Chair of Statistics, Augsburg University, Germany, 22 November
Statistische Woche 2013, Free University of Berlin, Germany, 18-21 September
Invited talk at Economic Risk Seminar, Humboldt University of Berlin, Germany, 27 May
Statistics under one umbrella (DAGStat 2013), Freiburg University, Germany, 18-22 March

2012 Statistische Woche 2012, Vienna University of Technology, Austria, 18-21 September

2011 Nachwuchsworkshop of DStatG, University of Leipzig, Germany, 19-23 September

2010 International Conference *Problems of Decision Making under Uncertainties*, Ivan Franko National University of Lviv, Ukraine, 17-21 May

RESEARCH STAYS

2018 Chair of Stochastics, Ruhr University Bochum, Germany, hosted by Holger Dette, 4-8 June

2018 Chair of Statistics, Augsburg University, Germany, hosted by Yarema Okhrin, 20-22 March

2017 Department of Mathematics, Stockholm University, hosted by Taras Bodnar, 2-4 May

2015 Chair of Econometrics, Karlsruhe Institute of Technology, Germany, hosted by Melanie Schienle, 21-24 September

2015 Chair of Statistics, Lund University, Sweden, hosted by Krzysztof Podgorski, 12-17 May

2013 Chair of Statistics, Augsburg University, Germany, hosted by Yarema Okhrin, 19-22 November

TEACHING

SS 2018 Financial Econometrics (English), lectures + exercises for Bachelor students at Mannheim University,
Multiple Time Series Analysis (English), lectures + exercises for Master students at Mannheim University

WS 2017/18 Advanced Econometrics (English), lectures + exercises for Master students at Heidelberg University,
Multivariate Statistics (German), lectures+exercises for Bachelor students at Heidelberg University

WS 2016/17 Econometrics II (Classical Linear Regression) (German), lectures + exercises in R for Bachelor students at LU Hannover,

SS 2016, SS17 Multivariate Statistics (German), lectures + exercises for Bachelor students at LU Hannover,

SS 2014, 2016 Applied Econometrics (English), lectures + tutorials in R for PhD students at LU Hannover,

WS 2015/16 Econometrics II (Classical Linear Regression) (German), lectures + exercises in R for Bachelor students at LU Hannover,

WS 2014/15 Econometrics I (Introduction) (German), lectures + exercises (core course, ca. 500 students) for Bachelor students at LU Hannover,

SS 2011 - WS 2013/14 Statistics I, II (German), tutorials for Bachelor students at Viadrina University and Ruhr University Bochum,

SS 2013 Quantitative Risk Management (English), seminar for Master students at Viadrina University,

SERVICE TO THE PROFESSION

Member of German Statistical Association, American Statistical Association, Econometric Society

Referee of Annals of Statistics, Bernoulli, Journal of Multivariate Analysis, IEEE Transactions on Signal Processing, Journal of Business and Economic Statistics, Statistics, Quantitative Finance, Journal of Banking and Finance, European Journal of Operational Research, Advances of Statistical Analysis, Computational Statistics

Computer skills

R, LaTex, Delphi, Matlab, Maple

Last updated: October 28, 2018