

# Sofie R. Waltl

Curriculum Vitae – January 2019

Assistant Professor at WU Vienna, Researcher at LISER in Luxembourg and Consultant to the ECB.

## Personal Details and Contact Information

Surname:	Waltl	Address I:	LISER
Given names:	Sofie Regina		11, Porte des Sciences
Year of birth:	1989		4366 Esch-sur-Alzette/Belval; Luxembourg
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## Education

- 2014–2017 **Doctorate (Dr. rer. soc. oec.) in Economics**, *University of Graz, Austria*.
  - Degree with distinction, GPA<sup>1</sup> 1.0 (Defence date: 26 January 2017)
  - Dissertation: *Modelling Housing Markets: Issues in Economic Measurement*
  - Supervisor: Robert J. Hill; external examiner: Daniel P. McMillen
- Oct 2016 – **Austrian Marshall Plan Foundation Visiting Scholar**, *University of California at Berkeley, USA*.
  - Jan 2017 Auditing classes in Macroeconomics, Urban Economics, Real Estate Economics, and Economics and Psychology
- 2011–2013 **Master's degree (DI<sup>2</sup>) in Financial and Actuarial Mathematics**, *Graz University of Technology, Austria*.
  - Degree with distinction, GPA<sup>1</sup> 1.0 (Defence date: 19 December 2013)
  - Thesis: *Standard Errors in Negative Binomial Models with Random Effects*. (Supervisor: Herwig Friedl)
- 2009 **Exchange semester**, *University of Puerto Rico, San Juan, Puerto Rico, USA*.
  - GPA (USA) 4.0 (equivalent to 1.0 in Austria)
- 2007–2011 **Bachelor's degree (BSc) in Mathematics**, *University of Graz, Austria*.
  - Thesis: *Modelling a Heat Pump System to Determine the Appropriate Separation between Collectors in the Earth*. (Supervisor: Stephen Keeling)
  - GPA<sup>1</sup> 2.3
- 2003–2007 **High School**, *BORG Deutschlandsberg, Deutschlandsberg, Austria*.
  - School leaving exam ("Matura") passed with distinction, GPA<sup>1</sup> 1.0
  - Areas of concentration: Languages and Mathematics

<sup>1</sup>GPA (Grade Point Average) in Austria: 1.0 is best and 5.0 worst.

<sup>2</sup>The Austrian degree DI ("Diplom-Ingenieurin") is internationally equivalent to an MSc degree.

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## Experience

- since Nov 2018 **Assistant Professor**, *Vienna University of Economics and Business (WU)*, Austria.  
Department for Economics and Research Institute Economics of Inequality (INEQ)
- since Oct 2017 **Postdoctoral Researcher**, *Luxembourg Institute of Socio-Economic Research (LISER)*, Luxembourg.
- Feb – Sept 2017 **PhD Trainee**, *European Central Bank, Frankfurt am Main*, Germany.  
Directorate General Statistics. Project on Distributional National Accounts for Wealth in Europe.
- Oct 2013 – Sept 2016 **Graduate Research Associate**, *University of Graz*, Austria.  
Department of Economics; Position sponsored by the Austrian National Bank, Jubiläumsfonds
- 2010 – 2016 **Teaching Assistant**, *University of Graz and Graz University of Technology*, Austria.

## Consultancy, Research Visits & Visiting Scholar Positions

- since June 2018 **European Central Bank**, *Consultant to the Directorate General Statistics concerning Measuring Housing Wealth, and Linking Micro and Macro Data for the Household Sector.*
- March 2018 **Vienna University of Economics and Business (WU)**, *Austria.*  
Research visit at the *Research Institute Economics of Inequality* (1 week).
- Oct 2016 – Jan 2017 **University of California, Berkeley**, *USA.*  
Austrian Marshall Plan Foundation Visiting Scholar at the *Institute of European Studies* (3 months).

## Teaching

- (1) **Vienna University of Economics and Business.**
  - SoSe 2019: *Specialization Course – Economics of Inequality* (Bachelor)
- (2) **University of Graz, (as Teaching Assistant).**
  - SoSe 2015, SoSe 2016: *Econometrics II* (Bachelor)
  - WiSe 2015/16: *Econometrics I* (Bachelor)
  - March/Sept 2015: Crash course *Introduction to Programming with R* (Master)
  - WiSe 2011/12: *Introduction to Programming with MATLAB* (Bachelor)
  - WiSe 2010/11: *Linear Algebra for Mathematicians* (Bachelor)
- (3) **Graz University of Technology, (as Teaching Assistant).**
  - WiSe 2013/14: *Mathematics for Engineers I – Calculus* (Bachelor)
  - SoSe 2013: *Mathematics for Engineers II – Calculus* (Bachelor)
  - WiSe 2012/13, WiSe 2013/14: *Linear Algebra for Physicists* (Bachelor)  
(*WiSe - Winter semester, SoSe - Summer semester*)

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## Publications (Peer Reviewed)

- (1) [Estimating Quantile-Specific Rental Yields for Residential Housing in Sydney](#), *Regional Science and Urban Economics* 68, 2018, 204–225.
- (2) [Variation across price segments and locations: A comprehensive quantile regression analysis of the Sydney housing market](#), *Real Estate Economics*, forthcoming, doi: 10.1111/1540-6229.12177.
- (3) [A hedonic house price index in continuous time](#), *International Journal of Housing Markets and Analysis* 9(4), 2016, 648–670.

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## Articles under Review & Working Papers

- (1) (with R. Hill, M. Steurer) [Owner Occupied Housing in the CPI and Its Impact On Monetary Policy During Housing Booms and Busts \(LISER Working Papers, No. 2018-05\)](#)

- (2) (with R. Chakraborty) Missing the wealthy in the HFCS: Micro problems with macro implications ([ECB Working Paper Series, No 2163/June 2018](#))
- (3) (with K. Kholodilin, L. Limonov) Housing Rent Dynamics and Rent Regulation in St. Petersburg (1880-1917) ([DIW Discussion Papers, No 1780, 2019](#))

## Technical and Policy Reports / Non-Peer Reviewed Publications

- (1) (with C. Girón Pastor, A. Rodríguez Caloca) The Coverage of Household Sector Cross-Border Assets in the Financial Accounts and Balance of Payments Statistics: Stock-taking exercise. *Report prepared for the ESCB Working Group on Financial Accounts and the ESCB Working Group on External Statistics*, November 2017.
- (2) Distributional National Accounts for Wealth. The “Missing Wealthy” in the HFCS and their Influence on Distributional Figures in Europe. *Report prepared for the ECB Expert Group on Linking Macro and Micro Data for the Household Sector*, September 2017.

## Grants

- 2019 **LISER**, *Internal Research Grant (EUR 6,000)*, The grant funds online experiments testing the accuracy of self-estimated values of owner-occupied housing prices and rents.
- 2017 **Austrian Academy of Sciences**, “*Young Scientist*” scholarship to participate in the [6th Lindau Meeting on Economic Sciences \(67th Lindau Nobel Laureate Meeting\)](#).
- 2017 **American Real Estate and Urban Economics Association (AREUEA)**, *Travel grant to participate in the AREUEA/ASSA Conference January 2017 in Chicago, USA*.
- 2016 **Austrian Marshall Plan Foundation, Berkeley-Austria Exchange Program**, *Research grant (EUR 5,000) funding a graduate research project at UC Berkeley*.
- 2016 **Lincoln Institute of Land Policy**, *Travel grant and stipend to participate in the Lincoln Institute Scholars Program in May 2016 in Cambridge, MA, USA*.
- 2014 **Council of the University of Graz/Steiermärkische Sparkasse (“JungforscherInnen-Fonds”)**, *Research grant (EUR 24,000) competitively awarded based on the doctoral research proposal to four top-ranked doctoral students at the University of Graz*.

## Awards and Honours, Scholarships, and Competitions

- 2017 **Award of Excellence – Staatspreis für die besten Dissertationen**. The price (EUR 3,000) is awarded annually by the Austrian Ministry of Science, Research and Economy recognizing the 40 best doctoral dissertations completed during an academic year at any Austrian university and covers any subject.
- 2017 Recognition award for the dissertation *Modelling Housing Markets: Issues in Economic Measurement* by the [Dr. Maria Schaumayer Stiftung](#)
- 2015 & 2017 Performance Scholarship (“*Leistungsstipendium*”) recognizing excellent academic performance (number of credit points and weighted grade point average) awarded by the School of Business, Economics and Social Sciences at the University of Graz and sponsored by the Federal Ministry of Science, Research and Economy
- 2015 & 2016 Scholarship by the [Club Alpbach Steiermark](#) to participate in the [European Forum Alpbach](#)
- 2014 – 2017 Scholarship by the Austrian Academic Scholarship Foundation [Pro Scientia](#)
- 2013 Talents@Alpbach – Scholarship sponsored by the Austrian Ministry for Transport, Innovation and Technology to participate in the Technology Symposium at the [European Forum Alpbach](#)
- 2012 & 2013 Performance Scholarship (“*Leistungsstipendium*”) recognizing excellent academic performance (number of credit points and weighted grade point average) awarded by the Faculty of Mathematics, Physics and Geodesy at the Graz University of Technology and sponsored by the Federal Ministry of Science, Research and Economy

- 2010 3rd place in the [International Mathematics Olympiad](#) for Bachelor students in Tehran, Iran (participation sponsored by the Embassy of Austria in Iran).

## Presentations and Talks (incl. scheduled)

### Conferences and Invited Seminars

#### 2019

- Aug 16–18 **2019 Conference of the Society for Economic Measurement**, *Multidimensional Wealth Inequality: A Hybrid Approach toward Distributional National Accounts in Europe*, Goethe University Frankfurt and European Central Bank, Germany.
- June 11 **University of Graz**, *Housing Rent Dynamics and Rent Regulation in St. Petersburg (1880–1917)*, Graz, Austria.
- Feb 25 **University of Antwerp**, *Multidimensional Wealth Inequality: A Hybrid Approach toward Distributional National Accounts in Europe*, Antwerp, Belgium.
- Feb 20–22 **International Conference on Real Estate Statistics**, *Tracking Owners' Sentiments: Subjective Home Values, Expectations and House Price Dynamics in Europe*, EUROSTAT, Luxembourg.

#### 2018

- Dec 20 **Austrian Economic Association (NOeG) Winter Workshop**, *Multidimensional Wealth Inequality: A Hybrid Approach toward Distributional National Accounts in Europe*, Vienna University of Economics and Business (WU).
- Dec 6/7 **Wealth Inequality and Mobility Workshop**, *Multidimensional Wealth Inequality: A Hybrid Approach toward Distributional National Accounts in Europe*, University of Luxembourg, Luxembourg.
- Nov 27 **European Central Bank**, *The Accuracy of Self-Reported Home Values in the HFCS & Multidimensional Wealth Inequality: A Hybrid Approach toward Distributional National Accounts in Europe (workshop)*, Frankfurt.
- Nov 22 **WU Research Seminar in Economic, Social and Business History**, *Housing Rent Dynamics, Rent Regulation and Consumer Prices in St. Petersburg (1880–1917)*, Vienna University of Economics and Business (WU).
- Oct 24 **University of Luxembourg, SEMILUX Seminar**, *Multidimensional Wealth Inequality: A Hybrid Approach toward Distributional National Accounts in Europe*, Luxembourg.
- Aug 22 **35th General Conference of the International Association for Research in Income and Wealth**, *A Hybrid Approach toward Distributional National Accounts for Wealth in Europe with a Special Focus on Housing Wealth*, Statistics Denmark, Copenhagen.
- Aug 2 **XVIII World Economic History Congress; Long Run Real Estate Markets: New Measurements, New Insights**, *Historical Rental Prices in St Petersburg*, MIT, Cambridge, MA, USA, invited talk.
- July 11 **DIW Berlin (German Institute for Economic Research)**, *Distributional National Accounts for Wealth: Measurement Issues*, Germany.
- May 4 **"The legacy of Tony Atkinson in inequality analysis"**, **LIS/LWS 2nd Users Conference**, *Missing the wealthy in the HFCS: Micro problems with macro implications*, LIS, Luxembourg.
- April 25 **STATEC (Statistical Institute of Luxembourg)**, *Owner Occupied Housing in the CPI and Its Impact On Monetary Policy During Housing Booms and Busts*, Luxembourg.
- March 15 **Oesterreichische Nationalbank (Austrian National Bank)**, *Measuring Wealth Inequality in Europe: A Quest for the Missing Wealthy*, Vienna, Austria.
- March 13 **Vienna University of Economics and Business, Research Institute Economics of Inequality**, *Measuring Wealth Inequality in Europe: A Quest for the Missing Wealthy*, Vienna, Austria.
- Feb 22 **Luxembourg Ministry of Housing**, *Do people know their wealth? Reliability of self-assessed house prices and rents*, Luxembourg.

## 2017

- Dec 15 **First WID.world Conference**, *Missing the wealthy in the HFCS: Micro problems with macro implications*, Paris School of Economics, Paris, France.
- Nov 21 **User Workshop of the Eurosystem Household Finance and Consumption Survey**, *Missing the wealthy in the HFCS: Micro problems with macro implications*, European Central Bank, Frankfurt, Germany.
- Sept 26 **University of Graz**, *Measuring Wealth Inequality in Europe: A Quest for the Missing Wealthy*, Graz, Austria.
- Aug 24 **Deutsche Bundesbank (German Central Bank)**, *Missing the wealthy in the HFCS: Micro problems with macro implications*, Frankfurt am Main, Germany.
- June 29 **5th Luxembourg Workshop on Household Finance and Consumption**, *Missing the wealthy in the HFCS: Micro problems with macro implications*, Central Bank of Luxembourg, Luxembourg.
- June 7 **Meeting of the Expert Group on Linking Macro and Micro Statistics for the Household Sector**, *Missing the wealthy in the HFCS: Micro problems with macro implications*, European Central Bank, Frankfurt am Main, Germany.
- Jan 30 **Luxembourg Institute of Socio-Economic Research (LISER)**, *Variation across price segments and locations: A comprehensive quantile regression analysis of the Sydney housing market*, Esch-sur-Alzette/Belval, Luxembourg.
- Jan 5 **American Real Estate and Urban Economics Association (AREUEA) Doctoral Poster Session, AREUEA/ASSA Conference**, *Variation across price segments and locations: A comprehensive quantile regression analysis of the Sydney housing market*, Chicago, IL, USA.

## 2016

- Oct 6 **Oesterreichische Nationalbank (Austrian National Bank)**, *Estimating aggregate quantile-specific gross rental yields for residential housing in Sydney*, Vienna, Austria.
- May 4 **Lincoln Institute Scholars Program**, *Estimating aggregate quantile-specific, quality-adjusted rental yields for residential housing*, Lincoln Institute of Land Policy, Cambridge, MA, USA.
- April 19 **University of Graz**, *Estimating aggregate quantile-specific, quality-adjusted rental yields for residential housing*, Graz, Austria.
- April 5 **Regional Studies Association Annual Conference**, *Variation across price segments and locations: A comprehensive quantile regression analysis of the Sydney housing market*, University of Graz, Austria.
- Jan 15 **ISW Workshop on Empirical Economics**, *Variation across price segments and locations: A comprehensive quantile regression analysis of the Sydney housing market*, WIFO (Austrian Institute of Economic Research) in Vienna, Austria.

## 2015

- July 22 **2015 Conference of the Society for Economic Measurement**, *Going beyond averages: Quantile-specific house price indices*, OECD headquarter in Paris, France, invited talk.
- June 6 **Annual Meeting of the Austrian Economic Association**, *A hedonic house price index in continuous time*, University of Klagenfurt, Austria.

## 2014

- Dec 17 **Workshop on Improvements in Price Index Methodology and Practice: The International Comparisons Program (ICP) and the Measurement of Movements in House Prices**, *A Quantile Regression approach to constructing House Price Indices*, University of Graz, Austria, invited talk.
- Dec 3 **Faculty Research Seminar, University of Graz**, *House Price Indices. Why measurement matters and how it can be done*, Faculty of Social and Economic Sciences at the Graz, Austria.
- Oct 18 **19th Young Statisticians Meeting**, *The Calculation of Standard Errors in the Random Effect Negative Binomial Model*, Basovizza, Italy, invited talk.

- Aug 20 **Inaugural Conference of the Society for Economic Measurement**, *Continuous Time Hedonic Methods: A New Way to Construct House Price Indices*, University of Chicago Booth School of Business, USA.
- Organization of Workshops and Sessions, Discussant
- Aug 2020 **36th General Conference of the International Association for Research in Income and Wealth**, *Co-Organiser of the Session "Measurement in the Housing Market" (together with R. J. Hill, W. E. Diewert, T. Garner, T. Jellema, P. Konijn, A. Rambaldi, C. Shimizu, P. van de Ven)*, Oslo, Statistics Norway.
- Aug 2019 **2019 Conference of the Society for Economic Measurement**, *Co-Organiser and Chair of the Session "The Wealth Distribution and its Measurement" (together with Philip Vermeulen)*, Goethe University Frankfurt and European Central Bank.
- June 6, 2019 **Distributional National Accounts for Austria**, *Organiser of the Workshop*, Vienna University of Economics and Business.
- Aug 21, 2018 **35th General Conference of the International Association for Research in Income and Wealth**, *Discussant for "The Bank of Mum & Dad – Intergenerational Transfers and First-time Homeownership in Australia" by M. Cigdem-Bayram, S. Whelan and G. Wood*, Statistics Denmark, Copenhagen.

### Science to Public

- August 28, 2018 **The future of data economy**, Invited speaker ("young expert") at the Economic Symposium of the European Forum Alpbach, Alpbach, Austria.
- March 19, 2018 **What it's like to be an economist?**, Talk in the course of the program *Chercheurs à l'école* by the Luxembourg National Research Fund that brings researchers to local high schools to inspire the next generation of researchers, Luxembourg.
- March 7, 2016 **Randomness in Science. Examples from Economic Theory and Financial Mathematics**, *Pro Scientia*, Graz, Austria.
- Jan 13, 2016 **Hedonic methods in a housing context**, *Scholarship holders' colloquium JungforscherInnen-Fonds*, University of Graz, Austria.
- Nov 23, 2015 **How rational are we? The limitations of Homo Economicus**, *Pro Scientia*, Graz, Austria.
- Sept 6 & 8, 2015 **Super Size Me – Workshop on Mathematical Modelling** (transforming thoughts into equations; usage of mathematics to answer everyday life's questions; understanding of modelling as a simplification of the world; how to interpret model results taking into account simplifications), *Pro Scientia*, Celje, Slovenia, (workshop).
- March 23, 2015 **Modelling Housing Markets. Why measurement matters and how it can be done**, *Pro Scientia*, Graz, Austria.
- Dec 3, 2014 **Bayes' Theorem**, *Pro Scientia*, Graz, Austria.
- April 9, 2014 **Game Theory**, *Pro Scientia*, Graz, Austria.
- summer term, 2010 **The Golden Section**, Mathematical workshops for secondary school students in co-operation with Bernd Thaller (University of Graz), Wies, Austria, (workshop).

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### Workshops, Additional Training, and Professional Meetings

- December 2018 **OECD-Eurostat Expert Group on Disparities in a National Accounts framework (EG DNA)**, *Invited Expert*, Eurostat, Luxembourg.
- October 2018 **Introductory Class to Duration Analysis**, 1 day, Instructor: Bart Cockx, Luxembourg.
- August 2018 **Course on National Accounts**, *Training Course as part of the 35th IARIW General Conference*, 2 days, Instructor: François Lequiller, Copenhagen, Denmark.

- July 2018 **11th BESLab Experimental Economics Summer School in Macroeconomics & 9th BESLab International Workshop on Theoretical and Experimental Macroeconomics**, 5-days summer school and 2-days workshop on experimental approaches in macroeconomics, Technical University of Berlin, Germany.
- June 2018 **Introduction to R and Statistical Learning** (participation in the “Statistical Learning” part only), LISER, 2 days, Instructor: Anna Gottard, Luxembourg.
- April 2018 **OECD Conference on wealth inequalities: Measurement and policies**, OECD, Paris, France.
- May 2017 **15th Meeting of the Ottawa Group (International Working Group On Price Indices)**, hosted by Deutsche Bundesbank, Eltville am Rhein, Germany.
- July 2016 **The Macroeconomics of Credit and Asset Bubbles**, *Barcelona Graduate School of Economics: Macroeconomics Summer School*, 5 days, Instructor: Jaume Ventura, Barcelona, Spain.
- Sept 2015 **Generalized Additive Models based on the R Package mgcv**, *Graz University of Technology*, 2 days, Instructor: Simon Wood, Graz, Austria.
- Aug 2015 **Macroeconomic Imbalances in Europe – Is the European Monetary Union doomed to survive?**, *One-week seminar at the European Forum Alpbach*, Seminar Assistant to Hans-Helmut Kotz, Helene Schuberth and Gertrude Tumpel-Gugerell, Alpbach, Austria.
- 2014 **Baysian Statistics**, *Vienna University of Technology*, One-semester course (March–June), Austria.
- Oct 2012 **Intercultural and Social Competence for Business**, *Graz University of Technology*, 3 days workshop, Graz, Austria.
- 2009 **Intercultural Communication**, *Universidad de Puerto Rico – Recinto de Rio Piedras*, One-semester course, San Juan, Puerto Rico.
- 2009 **Train the Trainer**, *AIESEC Workshop on Presentation Techniques, Facilitation and Training Methods*, 3 days, Salzburg, Austria.
- 2008 **ProjectEDU**, *AIESEC seminar on Non-formal Education and Intercultural Communication*, 10 days, Tallinn, Estonia.

## Referee/Reviewer

### Journals

- Journal of Economic Inequality
- Journal of Policy Analysis and Management
- Journal of Real Estate Research
- Real Estate Economics
- Regional Science and Urban Economics
- Review of Income and Wealth

## Memberships

American Real Estate and Urban Economics Association (AREUEA), Austrian Economic Association (NOeG), European Economic Association (EEA), International Association for Research in Income and Wealth (IARIW), Society for Economic Measurement (SEM)

## In the press

My research has been cited in national and international newspapers, including *Die Presse*, *Der Standard* and *Kleine Zeitung* (Austria), *Die Welt* (Germany), *D’Lëtzebuerger Land* and *Lëtzebuerger Journal* (Luxembourg), and *Central Banking* (UK). A comprehensive list can be found at [www.sofiewaltl.com](http://www.sofiewaltl.com).

## Languages

**German** (native), **English** (fluent), **Spanish** (intermediate), **French** (beginner)

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## Miscellaneous

- IG Alpbach Vice-president of the Initiative Group Alpbach Graz (student organization to the [Club Alpbach Steiermark](#)), October 2015 – September 2016
- Pro Scientia *Pro Scientia* is the Austrian Academic Scholarship Foundation. Elected representative of the scholarship holders in Graz February 2015 – February 2016; and elected national representative September 2015 – September 2016; member of the scientific program development committee for the Pro Scientia Summer Academy 2016
- ECG Since 2016, I am a member of the advisory board of the [Economics Club Graz](#) and occasionally I also contribute to the [Graz Economics Blog](#).
- Austrian Elected chairwoman of the official representation of Doctoral Students in Social and Economic Sciences at the University of Graz; main achievement: establishing funding opportunities for research activities for doctoral students at the faculty, July 2015 – January 2017
- CUKO Member of the curriculum commission responsible for developing and revising the curriculum for the faculty's doctoral programme at the Faculty of Social and Economic Sciences at the University of Graz, Austria, 2015 – 2016
- AIESEC AIESEC is the world's largest student-run nonprofit organization ("The international platform for young people to explore and develop their leadership potential."). Member of the local committee Graz, Austria, 2008–2012. Special functions: Member of the *Communications Team*; Team Leader "*Sustainable Development*"; President of the Organizational Committee and Programme Chair for an international conference about Sustainable Development held in Bruck/Mur, Austria.
- Mathematical Participant in the [Week of Mathematical Modelling](#) for highly skilled high school students organized by the University of Graz (Project: *The Spread of Infectious Diseases*), Schloss Seggau, Austria, 2006

### Relevant Internships

- 2012 **ecofinance / Reval**, Graz, Austria, (1 month).  
Provider of cloud treasury software. Department: Product Management.
- 2011 **Hanover Re**, Hanover, Germany, (6 months).  
Reinsurance company. Department: Advanced Solutions (department for structural reinsurance)
- 2010 **UniCredit Bank Austria**, Vienna, Austria, (2 months).  
Department: Credit Risk Instruments and Methods. Statistical research project about customer attrition.
- 2005 **Oesterreichische Nationalbank (Austrian National Bank)**, Vienna, Austria, (1 month).  
Department: Foreign Research Division.