Veronika Czellar, PhD

Professor – Speciality : Data Science, Financial Econometrics

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EDUCATION

09/2006 **PhD in Econometrics and Statistics**
University of Geneva
Title: "Small Sample Properties of Indirect Inference with Applications to Stochastic Differential Equations". Supervisor: Prof. Elvezio Ronchetti

09/2002 **Master's degree in Econometrics**
University of Geneva

07/2000 **Bachelor's degree in Mathematics, minor in Economics and Finance**
University of Geneva

1988-1996 **Secondary and highschool education** in Russia, Finland and Switzerland

ACADEMIC APPOINTMENTS AND VISITING POSITIONS

09/2015- **Professor, Dept. of Accounting, Law, Finance and Economics**
EDHEC Business School

04/15-08/15 **Associate Professor, Dept. of Economics, Finance and Control**
EMLYON Business School

09/13-04/15 **Assistant Professor, Dept. of Economics, Finance and Control**
EMLYON Business School

09/07-09/13 **Assistant Professor, Dept. of Economics and Decision Sciences**
HEC Paris

01/08-03/08 **Visiting Scholar, Dept. of Economics**
University of Washington

10/06-09/07 **Postdoctoral Fellow, Dept. of Statistics**
University of Washington

09/03-03/04 **Visiting Scholar, Dept. of Finance**
Fisher College of Business, The Ohio State University

09/00-07/06 **Teaching Assistant, Dept. of Econometrics**
University of Geneva

TEACHING

2018-present **R for Finance**, MSc in Financial Markets, EDHEC

2020-present **Data Analytics with R**, Master in Management, Global Economic Transformation & Technology, EDHEC, some videos of the lectures available on YouTube:
https://www.youtube.com/channel/UCWIroTGNQj8unx5_S6nJUlA

2019-present **Introduction to Data Analysis**, Master in Management, EDHEC, some videos of the lectures available on YouTube:
https://www.youtube.com/channel/UCWIroTGNQj8unx5_S6nJUlA

2016-present **Multivariate Data Analysis**, Master in Management, EDHEC, some videos of the lectures available on YouTube:
https://www.youtube.com/channel/UCWIroTGNQj8unx5_S6nJUlA

2010-present **Financial Econometrics with R**, Master in Management, Financial Economics, EDHEC (2016-present) and Master of Quantitative Economics and Finance, HEC Paris (2010-2015)

2007-2015 **Statistics**, Master in Management
EMLYON (2014 - 2015) and HEC Paris (2007, 2013)
Videos of the lectures and course material available on iTunes U (117 007 subscribers between July 4 2012 and September 2 2015):
http://itunes.apple.com/fr/course/statistics/id542118413

2013-2014 **Portfolio Management**, Master in Management, EMLYON

2013-2014 **Time Series**, Specialised Master in Quantitative Finance, EMLYON

2013-2014 **Visual Basic for Applications**, Master in Management, EMLYON

2013-2014 **Mathematics for Finance**, Specialized Master in Quantitative Finance, EMLYON

2008-2012 **Statistics for Management**, PhD Course, HEC Paris

2007 **Vector Calculus and Linear Algebra**, Master in Management, HEC Paris

2007-2008 **Elements of Mathematical Statistics**, Master in Management, HEC Paris

2007 **Probability and Statistics in Engineering and Science**,
University of Washington

RESEARCH INTERESTS

• Simulation-based methods (particle filters, indirect inference)
• Robust statistics
• Financial econometrics

RESEARCH PAPERS

Work in Progress

• "Approximate Maximum Likelihood for Complex Structural Models", with David T. Frazier and Eric Renault, under review.

• "Limited participation in the joint behavior of asset prices and individual consumptions", with René Garcia and François Le Grand, manuscript.

• "Structural Dynamic Analysis of Systematic Risk", with Laurent Calvet and Christian Gouriéroux, manuscript.

Publications

• "M&A Rumors about Unlisted Firms" (2021), with Yan Alperovych, Douglas Cumming and Alexander Groh, *Journal of Financial Economics*, forthcoming.

• "Asymmetric Stochastic Volatility Models: Properties and Particle Filter-based Simulated Maximum Likelihood Estimation" (2020), with Xiuping Mao, Esther Ruiz and Helena Veiga (2020), *Econometrics and Statistics*, vol. 13, January 2020, 84–105.

• "Robust Filtering", with Laurent Calvet and Elvezio Ronchetti (2015), *Journal of the American Statistical Association*, vol. 110, issue 512, 1591–1606.

• "Through the Looking Glass: Indirect Inference Via Simple Equilibria" (2015), with Laurent Calvet, *Journal of Econometrics*, vol. 185, issue 2, 343–358.

• "Accurate Methods for Approximate Bayesian Computation Filtering" (2015), with Laurent Calvet, *Journal of Financial Econometrics*, vol. 13, issue 4, 798–838.

• "Accurate and Robust Tests for Indirect Inference" (2010), with Elvezio Ronchetti, *Biometrika*, vol. 97, issue 3, 621–630

• "Accurate and Robust Indirect Inference for Diffusion Models" (2008), with Elvezio Ronchetti, *Cahiers du Département d'Econom´etrie*, University of Geneva, No 2008.01

• "Indirect Robust Estimation of the Short-term Interest Rate Process" (2007), with G. Andrew Karolyi and Elvezio Ronchetti, *Journal of Empirical Finance*, vol. 14, issue 4, 546–563

TALKS

• March 18, 2021: “Approximate Maximum Likelihood for Complex Structural Models,” EDHEC Internal Research Seminar, Lille (France)
• December 11, 2021: “Limited Participation in the Joint Behavior of Asset Prices and Individual Consumptions,” Finance seminar, University of Luxemburg (Luxemburg)
• June 25, 2020: “Private Capital Market M&A Rumors: Why They Are Hated,” EDHEC Internal Research Seminar, Lille (France)
• April 11, 2019: “Limited Participation in the Joint Behavior of Asset Prices and Individual Consumptions,” with René Garcia and François Le Grand, seminar CREST ENSAE, Paris (France)
• June 22, 2017: “Limited Participation in the Joint Behavior of Asset Prices and Individual Consumptions,” 10th annual meeting of the Society for Financial Econometrics, NYU Stern, New York (USA)
• February 23, 2017: “ABC filtering in State-space Models,” Validating and Expanding Approximate Bayesian Computation Methods, Banff (Canada)
Video of my presentation is available on the conference website:
http://www.birs.ca/events/2017/5-day-workshops/17w5025/videos/watch/201702231106-Czellar.html
• December 9, 2016: “Limited participation in the joint behavior of asset prices and individual consumptions,” 10th International Conference on Computational and Financial Econometrics, Seville (Spain)
• November 17, 2016: “Structural Dynamic Analysis of Systematic Risk,” EDHEC Internal Research Seminar, London (UK)
• May 14, 2016: “Limited participation in the joint behavior of asset prices and individual consumptions,” Toulouse School of Economics Financial Econometric Conference, Toulouse (France)
• December 14, 2015: “Structural Dynamic Analysis of Systematic Risk,” 9th International Conference on Computational and Financial Econometrics, London (UK)
• November 5, 2015: “Estimating the role of limited participation in the joint behavior of asset prices and individual consumptions,” EDHEC Internal Research Seminar, Nice (France)
• June 10, 2015: “Estimating Inertia in Stock Market Participation,” Workshop on Methodological Advances in Statistics Related to Big Data, Castro Urdiales (Spain)
• May 6, 2015: “Estimating Inertia in Stock Market Participation,” EMLYON Research Workshop, Ecully (France)
• March 4, 2015: “Robust Filtering,” Research seminar, Università degli Studi di Verona (Italy)
• October 31, 2014: “Accurate Methods for Approximate Bayesian Computation Filtering, ” Research seminar, Universidad Carlos III de Madrid (Spain)
• August 23, 2014: “Accurate Methods for Approximate Bayesian Computation Filtering,” Satellite meeting of COMPSTAT 2014, Neuchâtel (Switzerland)
• August 19, 2014: “Robust Filtering,” 21st International Conference on Computational Statistics, Geneva (Switzerland)
• June 26, 2014: “Accurate Methods for Approximate Bayesian Computation Filtering,” 8th R/Rmetrics Workshop, Collège des Bernardins, Paris (France)
• May 30, 2014: “Accurate Methods for Approximate Bayesian Computation Filtering,” Conference on Indirect Estimation Methods in Finance and Economics, Abbey Hegne (Germany)

• December 15, 2013: "Accurate Methods for Approximate Bayesian Computation Filtering," 6th International Conference on Computing and Statistics (ERCIM 2013), London (UK)
• December 5, 2013: "Robust Filtering," Research Seminar in Econometrics and Finance at INSEE-CREST, Paris (France)
• December 2, 2012: "Robust Filtering," 5th International Conference on Computing and Statistics (ERCIM 2012), Oviedo (Spain)
• August 6, 2012: "Robust Filtering," International Conference on Robust Statistics, Burlington (USA)
• August 1, 2012: "Robust Filtering," Joint Statistical Meetings, San Diego (USA)
• November 18, 2011: "State-Observation Sampling," Research Seminars in Statistics, University of Geneva (Switzerland)
• June 10, 2011: "State-Observation Sampling and the Econometrics of Learning Models," Finance and Statistics Workshop, HEC Paris, Jouy en Josas (France)
• October 8, 2010: "Efficient Estimation of Learning Models," Second HEC Finance and Statistics Conference, Paris (France)
• August 19, 2010: "Efficient Estimation of Learning Models," Econometric Society World Congress, Shanghai (China)
• July 16, 2010: "Efficient Estimation of Learning Models," 14th International Conference on Computing in Economics and Finance, London (UK)
• July 7, 2010: "Efficient Estimation of Learning Models," International Symposium on Business and Industrial Statistics, Portoroz (Slovenia)
• June 28, 2010: "Accurate and Robust Tests for Indirect Inference," International Conference on Robust Statistics, Prague (Czech Republic)
• May 22, 2010: "Efficient Estimation of Learning Models," Toulouse School of Economics Financial Econometrics Conference, Toulouse (France)
• October 30, 2009: "Accurate and Robust Tests for Indirect Inference," 3rd International Workshop on Computational and Financial Econometrics, Limassol (Cyprus)
• October 2, 2009: "Accurate and Robust Tests for Indirect Inference," HEC Finance and Statistics Conference, Paris (France)
• July 16, 2008: "Second-order Accurate and Robust Indirect Inference with Applications to Diffusion Models," Far Eastern and South Asian Meeting of the Econometric Society, Singapore Management University (Singapore)
• June 26, 2008: "Second-order Accurate and Robust Indirect Inference with Applications to Diffusion Models," 14th International Conference on Computing in Economics and Finance, University of Sorbonne, Paris (France)
• June 21, 2008: "Second-order Accurate and Robust Indirect Inference," 2nd International Workshop on Computational and Financial Econometrics, Neuchâtel, (Switzerland)
• April 25, 2008: "Improved Inference for Efficient Method of Moments and Indirect Inference Estimators," Seminars in Econometrics and Statistics, Katholieke Universiteit Leuven, Leuven (Belgium)
• April 11, 2008: "Second-order Accurate and Robust Indirect Inference," Research Seminars in Statistics, University of Geneva, Geneva (Switzerland)
• February 4, 2008: "Second-order Accurate and Robust Indirect Inference," Dept. of Statistics, University of Washington, Seattle (USA)
• October 11, 2007: "Second-order Accurate and Robust Indirect Inference," European Center for Advanced Research in Economics and Statistics, Université Libre de Bruxelles, Bruxelles (Belgium)

• June 23, 2007: “Indirect Inference and Efficient Method of Moments: Practical Issues and Finite Sample Comparison,” 2007 North American Summer Meetings of the Econometric Society, Duke University (USA)
• June 15, 2007: “Indirect Inference and Efficient Method of Moments: Practical Issues and Finite Sample Comparison,” 13th International Conference on Computing in Economics and Finance, HEC Montréal (Canada)
• April 20, 2007: “Indirect Inference and Efficient Method of Moments: Practical Issues and Finite Sample Comparison,” 1st InternationalWorkshop on Computational and Financial Econometrics, Geneva (Switzerland)
• April 19, 2007: “Indirect Robust Inference with Application to Diffusion Models,” Dept. of Statistics, University of Oxford, Oxford (UK)
• April 11, 2007: “Indirect Robust Inference with Application to Diffusion Models,” Center for Statistics and the Social Sciences, University of Washington, Seattle (USA)
• February 27, 2007: “Indirect Robust Estimation of the Short-term Interest Rate Process,” Dept. of Economics, University of Washington, Seattle (USA)
• June 28, 2006: “Second-order Accurate and Robust Indirect Inference,” 9-th International Vilnius Conference on Probability Theory and Mathematical Statistics, Vilnius (Lithuania)
• March 10, 2006: “Indirect Robust Estimation of the Short-term Interest Rate Process,” SSES Annual Meeting, Lugano (Switzerland)
• February 10, 2006: “Indirect Robust Estimation of the Short-term Interest Rate Process,” Dept. of Mathematics and Statistics, Boston University (USA)
• November 16, 2005: “Indirect Robust Inference with Application to Stochastic Differential Equations,” School of Mathematics, The University of Manchester (UK)
• June 3, 2005: “Indirect Robust Estimation of the Short-term Interest Rate Process,” Conference on Changing Structures in International and Financial markets and the Effects on Financial Decision Making, Venice (Italy)
• January 11, 2005: “Indirect Robust Estimation of the Short-term Interest Rate Process,” The Second Bachelier Colloquium on Stochastic Calculus and Finance, Métabief (France)
• October 29, 2004: “Indirect Robust Estimation of the Short-term Interest Rate Process,” Dept. of Econometrics, University of Geneva (Switzerland)
• September 26, 2004: “Indirect Robust Estimation of the Short-term Interest Rate Process,” International Conference on Stochastic Finance, ISEG, Lisbon (Portugal)
• September 17, 2004: “Indirect Robust Estimation of the Short-term Interest Rate Process,” Dept. of Finance, Fisher College of Business, The Ohio State University (USA)

CONFERENCE ORGANIZATION/COMMITTEE MEMBERSHIP

• Summer 2017, 2018, 2019, 2020, 2021: program committee member for Annual SoFiE Conferences (Society for Financial Econometrics)

• December 13 - 14, 2017: co-chair of the conference on Computational and Finance Econometrics (CFE 2017), London (UK)
http://cfenetwork.org/CFE2017/

• December 9 - 11, 2016: session organizer on “Big Data in Economics and Finance,” at the 10th International Conference on Computational and Finance Econometrics (CFE 2016), Seville (Spain)

• December 12 - 14, 2015: session organizer on “Indirect inference and related methods,” at the 9th International Conference on Computational and Finance Econometrics (CFE 2015), London (UK)

• December 1 - 3, 2012: session organizer on “Particle filtering,” at the 5th International Conference on Computing and Statistics (ERCIM 2012), Oviedo (Spain)

• June 10, 2011: “HEC Finance and Statistics Workshop,” organizer (jointly with Laurent Calvet and Tomasz Michalski), HEC Paris, Jouy en Josas (France)

• October 8, 2010: “Second HEC Finance and Statistics Conference,” organizer (jointly with Laurent Calvet), Pavillon Gabriel, Paris (France)
Web Page: https://itunes.apple.com/fr/itunes-u/2nd-hec-finance-statistics/id425344280

• October 2, 2009: “HEC Finance and Statistics Conference,” organizer (jointly with Laurent Calvet), Pavillon Gabriel, Paris (France)
Web Page: http://www.hec.fr/News-Room/Actualites/HEC-Finance-and-Statistics-Conference-

• August 31 - September 4, 2009: “Stats in the Château,” summer school organizer (jointly with Pierre Alquier, Alfred Galichon, Eric Gautier and Gilles Stoltz), CRC castle, Jouy en Josas (France) Web Page: http://www.hec.fr/statsinthechateau

• 2008-2009: “Econometrics and Statistics Seminar,” organizer (jointly with Laurent Calvet), HEC Paris (France)

• June 26 - 28, 2008: session organizer at the 14th International Conference on Computing in Economics and Finance, University of Sorbonne, Paris (France)

AWARDS AND PRIZES

• September 2010: Grant from the Europlace Institute of Finance for the project “Learning Investor Sentiment and Market Mispricing in Real Time” (with Laurent Calvet)

• July 2010: Best y-BIS Paper Award 2010 for “Efficient Estimation of Learning Models” (with Laurent Calvet), provided by the American Statistical Association and the National Institute of Statistical Sciences

• October 2006 – September 2007: Swiss National Science Foundation fellowship

• September 2004 –March 2005: Carrière Académique support for academic women

• September 2003 –March 2004: Lombard Odier Darier Hentsch & Cie fellowship

iTunes U and YouTube

• Parts of my Data Analysis and R courses taught between (2019-2020) are on YouTube:
https://www.youtube.com/channel/UCWIroTGNQj8unx5_S6nJUlA

• My Statistics course at HEC Paris taught between March and June 2012 is a full featured iTunes U course, available at:
http://itunes.apple.com/fr/course/statistics/id542118413

• The Second HEC Finance and Statistics conference I co-organized with Laurent Calvet is available at:
http://itunes.apple.com/WebObjects/MZStore.woa/wa/viewPodcast?id=425344280

MASTER THESIS SUPERVISION

Between 2015-2020: Jingyi Chen, Lingyao Li, Sebastien Benet-Chambellan, Lola Blanch, Hanqiu Yang, Esther, Sabatier, Paul Bourgeaux, Penelope Desdorides, Lina Smati, Loise Engerand, Marie Breton, Geoffrey Mondain, Lea Fallourd, Juliette Guerlava, Pierre Lefort, Juliette Leonard, Fanny Olivier, Julia Simon, Clement Phelipot, Bouayad Amine Mohamed El Ghali, Julien Tetar, Marion Berthelot, Guillaume Rabineau, Vasco Costa Cabral, Dimitros Pananidis.

DOCTORAL COMMITTEE MEMBERSHIP

• Marcus Fearnley (graduated on January 22, 2013, Dept. of Finance, HEC Paris)

• Peter Fuleky (graduated on November 20, 2009, Dept. of Economics, University of Washington)

UNIVERSITY SERVICE

Organization of statistics recruiting with interviews at the Joint Statistical Meetings in Vancouver, July 31 - August 5 2010

REFEREEING

Econometric Reviews, Econometrics and Statistics, Econometric Theory, Journal of Applied Econometrics, Journal of Business and Economic Statistics, Journal of Corporate Finance, Journal of Econometrics, Journal of Empirical Finance, Journal of Multivariate Analysis, Journal of the Royal Statistical Society B, Journal of the American Statistical Association, Scandinavian Journal of Statistics, Statistics and Probability Letters

LANGUAGES

• Fluent: English, French, Hungarian (mother tongue), Russian
• Basic: German, Italian, Romanian