Sílvia Gonçalves

Montréal, November 20, 2014

Address

Département de sciences économiques
Université de Montréal
C.P. 6128, succ. centre-ville
Montréal, Canada H3C 3J7
Phone: (514) 343-6556
Fax: (514) 343-7221
Email: silvia.goncalves@umontreal.ca
Homepage: http://mapageweb.umontreal.ca/goncals/

Education

September 2000	Ph.D. in Economics, University of California, San Diego. Thesis: *The Bootstrap for Dependent Heterogeneous Processes.* Supervisor: Halbert White.
June 1999	Candidate in Philosophy, Economics, University of California, San Diego.
June 1993	B.A. in Economics, Universidade Nova de Lisboa.

Academic Positions

June 2012-present Full Professor, Department of Economics, Université de Montréal.

June 2013-May 2014 Visiting Professor, Department of Economics, Concordia University.

December 2013 Visiting Researcher, Federal Reserve Bank of St. Louis.

June 2006-May 2012 Associate Professor, Department of Economics, Université de Montréal.

June 2000-May 2006 Assistant Professor, Department of Economics, Université de Montréal.

December 2011 Visiting Researcher, Federal Reserve Bank of St. Louis.

May 2007-October 2007 Visiting Researcher, Banco de Portugal, Lisboa.

November 2007-May 2008 Visiting Scholar, Stern School of Business, NYU, Department of Finance.

Research Fields

Econometrics, Time Series Analysis, Financial Econometrics.

Editorial Activities

Associate Editor: *Journal of Time Series Analysis*, from January 1, 2013.

Associate Editor: *JBES*, from July 1, 2012.

Associate Editor: *Econometrics Journal*, from January 1, 2012.

Associate Editor: *Portuguese Economic Journal*, 2004-present.

Guest co-editor (with M. Carrasco, V. Chernozhukov, and E. Renault) of the special issue of *Journal of Econometrics* entitled "High Dimensional Problems in Econometrics".

Honors, Fellowships and Scholarships

2010	2010 CWEN Young Researcher Award (first CWEN prize for research by a young woman researcher in a Canadian university).
1999-2000	Alfred P. Sloan Doctoral Dissertation Fellowship.
Fall 1998	Projects in Econometric Analysis Fellowship, University of California, San Diego.
1995-1999	Ph.D. Scholarship (Praxis XXI) from the Portuguese National Science Foundation.

Publications

1. "Bootstrapping regression models with estimated factors and serial correlation," joint with Benoit Perron and Antoine Djogbenou, 2014, forthcoming in *Journal of Time Series Analysis.*
2. "Bootstrap inference for linear dynamic panel models with fixed effects," with Maximilien Kaffo, 2014, forthcoming in *Journal of Econometrics.*
3. "Discussion of 'Bootstrap prediction intervals for linear, nonlinear, and nonparametric autoregressions', by Li Pan and Dimitris Politis", 2014, forthcoming in *Journal of Statistical Planning and Inference.*
4. "Bootstrapping factor-augmented regression models," joint with Benoit Perron, *Journal of Econometrics*, June 2014, 182, pp. 156-173.
5. "Bootstrap inference for pre-averaged realized volatility based on non-overlapping returns", with Ulrich Hounyo and Nour Meddahi, *Journal of Financial Econometrics*, March 2014, 12 (4): 679-707.
6. "Bootstrapping realized multivariate volatility measures," with Prosper Dovonon and Nour Meddahi, *Journal of Econometrics*, January 2013, Volume 172, Issue 1, Pages 49-65.
7. "Discussion on 'Bootstrap for dependent data: a review' by J.-P. Kreiss and E. Paparoditis", with Dimitris Politis, July 2011, *Journal of the Korean Statistical Society,* 40, 383-386.
8. "The moving blocks bootstrap for panel linear regression models with individual fixed effects," October 2011, *Econometric Theory*, 27, 1048-1082.
9. "Block Bootstrap Puzzles in HAC Robust Testing: The Sophistication of the Naive Bootstrap," with Tim Vogelsang, September 2011, *Econometric Theory*, 27, 745-791.
10. "Box-Cox Transforms for Realized Volatility," with Nour Meddahi, January 2011, *Journal of Econometrics*, 160, 129-144.
11. "Bootstrapping Realized Volatility," with Nour Meddahi, January 2009, *Econometrica*, Vol. 77, 283-306.
12. "Edgeworth Corrections for Realized Volatility," with Nour Meddahi, *Econometric Reviews*, 27 (1), January 2008, 139-162.
13. "Asymptotic and Bootstrap Inference for AR(∞) Processes with Conditional Heteroskedasticity," with Lutz Kilian, *Econometric Reviews*, 26 (6), December 2007, 609-641.

14. “Predictable Dynamics in the S&P 500 Index Options Volatility Surface,” with Massimo Guidolin, *Journal of Business*, Vol. 79, May 2006, 1591-1635.

15. “Bootstrap Standard Error Estimates for Linear Regressions,” with Halbert White, *Journal of the American Statistical Association* Vol. 100, No. 471, September 2005, 970-979.

16. “Estimation Risk in Conditional Value-at-Risk,” with Peter Christoffersen, *Journal of Risk*, Spring 2005, 1-29.

17. “Bootstrapping Autoregressions with Conditional Heteroskedasticity of Unknown Form,” with Lutz Kilian, *Journal of Econometrics*, 2004, 123, 89-120.

18. “Maximum Likelihood and the Bootstrap for Nonlinear Dynamic Models,” with Halbert White, *Journal of Econometrics*, 2004, 119, 199-219.

19. “Consistency of the Stationary Bootstrap under Weak Moment Conditions,” with Robert De Jong, *Economics Letters*, 2003, 81, 273-278.

20. “The Bootstrap of the Mean for Dependent Heterogeneous Arrays,” with Halbert White, *Econometric Theory*, 2002, 18, 1367-1384.

Other publications

1. “O bootstrap para estatisticas HAC e os seus competitores,” *Boletim da Sociedade Portuguesa de Estatistica*, Outono 2009, 33-38.

Working papers

1. “Bootstrap prediction intervals for factor models,” joint with Benoit Perron and Antoine Djogbenou, 2014, revision requested by the *Journal of Business and Economics Statistics*.

2. “Bootstrapping pre-averaged realized volatility under market microstructure noise”, with Ulrich Hounyo and Nour Meddahi, 2014, submitted.

3. “Bootstrapping the GMM overidentification test under first order underdentification,” with Prosper Dovonon, 2014, submitted.

4. “Bootstrapping high frequency jump tests,” with Prosper Dovonon, Ulrich Hounyo and Nour Meddahi, 2014, mimeo, Université de Montréal, 2014.

5. “Edgeworth expansions for realized multivariate volatility measures,” with Prosper Dovonon and Nour Meddahi, mimeo, Université de Montréal, 2007.

Work in progress

1. “Tests of equal predictive ability in factor-augmented models”, with Michael W. McCracken and Benoit Perron.

2. “Bootstrapping multi-step extremum estimators with applications to GARCH and Copula models”, with Ulrich Hounyo, Andrew Patton and Kevin Sheppard.

Conference Participation

Presenter

2015 North American Winter Meetings of the Econometric Society, Boston, January 3-5.

2014 NBER-NSF Time Series Conference, Saint-Louis Fed, September 26-27.

IAAE 2014 Annual Conference, Queen Mary University of London, June 26-28.

7th Annual SoFiE conference, Toronto, Invited Lecture, June 11-13.

CIREQ Econometrics conference: time series and financial econometrics, May 9-10.

2013 Workshop on Bootstrap Methods for Time Series, Copenhagen, Denmark, Sept. 8-10.

Joint Statistical Meetings, Montreal, Invited Session on "Robust Inference in Time Series Analysis and Econometrics", August 8, 2013.

7th Conference of the Portuguese Economic Journal, University of Beira Interior, Portugal, July 8-9.

CIREQ Econometrics conference: time series and financial econometrics, May 3-4.

2012 Canadian Econometric Study Group, Queen's University, Canada, October 26-27.

Joint Statistical Meetings, San Diego, Invited Session on Resampling Methods in Time Series and Econometrics, July 28-Aug 2.

CIREQ conference on "High dimensional problems in econometrics", Montréal, May 4-5.

2011 NBER/NSF Time Series conference, Michigan State University, East Lansing, September 16-17.

Nonlinear and Financial Econometrics Conference: A Tribute to A. Ronald Gallant, Toulouse School of Economics, May 19-21.

Conference in Honor of Halbert L. White, Jr. - Causality, Prediction, and Specification Analysis: Recent Advances and Future Directions in San Diego, California, May 6-7.

2010 Fourth Meeting of the Portuguese Economics Journal, Faro, Portugal (June).

Canadian Economics Association, Québec (June).

Conference on resampling methods and high dimensional data, Texas A&M, College Station, Texas (March).

2009 Third CIREQ Time Series Conference, Montréal (May).

North American Summer Meetings of the Econometric Society, Boston (June).

Yale 2009 summer conference "Handling Dependence: Temporal, Cross-sectional, and Spatial", New Haven (June).

The 3rd Meeting of the Portuguese Economic Journal, Funchal, Portugal (June).

Joint Statistical Meetings, Washington DC (August).

European Econometric Society Meetings, Barcelona (August).

Canadian Econometrics Study Group, Ottawa (September).

2008 Applied Econometrics and Forecasting in Macroeconomics and Finance Workshop, St. Louis Federal Reserve Bank, St. Louis (March)

Econometric Analysis of High-Frequency Data and the Impact of Economic News, SITE Workshop, Stanford (June)

NBER-NSF time series conference, University of Aarhus (Poster Session) (September).

Bootstrap and numerical methods in time series analysis, keynote speaker, Nottingham (September).

2007 First Meeting of the Portuguese Economics Journal, Ponta Delgada, Açores, Portugal (June).
ISI 2007, Lisbon (August).
European Econometric Society Meeting, Budapest (August).
CEFAGE Workshops: Perspectivas da Investigação em Portugal: Econometria, Évora, Portugal (October).
Multivariate Volatility Models Conference, Universidade do Algarve (October).

2006 CIREQ Time Series Conference, Montréal (December).

2005 Canadian Econometrics Study Group Conference, Simon Fraser University, Vancouver (October).
Econometric Society World Congress 2005, London (August).
20th Annual Congress of the European Economic Association, Amsterdam (August).
NBER Summer Institute, NBER/NSF Forecasting Seminar, Boston (July).
Canadian Economics Association, McMaster University, Hamilton (May).
The First Symposium on Econometric Theory and Applications, Statistica Sinica, Taipei (May).
Simulation Based and Finite Sample Inference in Finance II, Québec (April).
North American Winter Meeting of the Econometric Society, Philadelphia (January).

2004 Canadian Econometrics Study Group Conference, York University, Poster Session (September).
CIREQ-CIRANO Conference: Financial Econometrics, Montreal, Poster Session (May).
Conference for Young Researchers on Forecasting in Time Series, Duke University (May).

2003 NBER/NSF Time Series Conference, Poster Session (September).
Australasian Meetings of the Econometric Society, Sydney (July).
North American Summer Meetings of the Econometric Society, Evanston (June).
Canadian Economics Association, Carleton University, Ottawa (June).

2002 Norh American Summer Meetings of the Econometric Society, Los Angeles (June).
Colloque CIREQ-CIRANO-MITACS, Modèles univariés et multivariés pour l'évaluation des actifs financiers (May).

2001 Colloque C.R.D.E, Méthodes de Rééchantillonnage en Économétrie (October).
Canadian Econometrics Study Group, Waterloo (September).
European Meetings of the Econometric Society, Lausanne (August).
North American Summer Meetings of the Econometric Society, Maryland (June).
Canadian Economics Association, McGill University, Montréal (May).
North American Winter Meetings of the Econometric Society, New Orleans (January).

Discussant

2013 Canadian Econometrics Study Group, University of Waterloo, Waterloo (September): *Bootstrap Tests for Overidentifcation in Linear Regression Models*, Russell Davidson (McGill University) and James G. MacKinnon (Queen's University).

2008 Canadian Econometrics Study Group, Concordia University, Montréal (September): *Robustifying common deterministic trend tests to nonstationary volatility*, by Ke-Li Xu.

2005 Canadian Econometrics Study Group, Simon Fraser University (October): *k-step Estimation and Bootstrap-based Inference for Structural Discrete Markov Decision Models*, by Hiroyuki Kasahara and Katsumi Shimotsu.

Canadian Economics Association, McMaster University (May): *Applications of the Fast Double Bootstrap,* by James MacKinnon.

North American Winter Meeting of the Econometric Society, Philadelphia (January): *Specification Testing for Multivariate Time Series Volatility Models,* by Yongmiao Hong and Yoon-Jin Lee.

2004 Joint Statistical Meetings, Toronto (August): *Applications of the Fast Double Bootstrap,* by James MacKinnon.

North American Winter Meeting of the Econometric Society, San Diego (January): *Block Bootstrap for Parameter Estimation Error when Parameters are recursively estimated,* by Valentina Corradi and Norman Swanson.

Seminar Presentations

2015 University of Michigan (April, scheduled)

2014 Duke University (September)

Bank of Canada, Ottawa (May)

2013 Universitat Pompeu Fabra, Barcelona (October)

Toulouse School of Economics, Toulouse (November)

2012 CEMAPRE, Lisbon (June)

University of Pennsylvania (April)

University of Texas A&M (January)

Rice University (January)

2011 Victoria University (November)

University of British Columbia (November)

Rochester University (October)

Tilburg University (June)

Georgetown University (April)

2010 Vanderbilt University (January)

Toulouse School of Economics (March)

2009 University of Southern California (April)

Queens University (April)

Boston University (May)

Boston College (September)

2008 Yale University (March)

Columbia University (March)

Duke University (April)

2007 ISCTE, Lisbon, Finance Department (September).
Universidade Técnica de Lisboa, ISEG, Economics Department (June).

2006 Universidade Técnica de Lisboa, ISEG, Mathematics Department (May).

2005 Universidade Nova de Lisboa (December).
Federal Reserve Bank of St. Louis (May).

2004 Montréal Econometrics Seminars, Concordia University (November).
University of Pittsburgh (November).
University of Michigan (April).
Université Laval (April).

2003 University of Pennsylvania (March).

2002 Université de Montréal, Department of Statistics (November).

2001 University of Toronto (December).
University of Michigan (November).
Michigan State University (November).
Montréal Econometrics Seminars, Concordia University (May).

2000 Queen's University (October).
University of Virginia (March).
Ohio State University (March)
Rutgers University (March).
Purdue University (February).
Universidade Nova de Lisboa (February).
Université de Montréal (February).
University of Alicante (February).
University of British Columbia (February).
University of Pennsylvania (February).
University of Texas, Austin (February).
University of Western Ontario (February).
UQAM (February).
Arizona State University (January).
University of California, Santa Barbara (January).

Refereeing

Annales d'Économie et Statistique
Canadian Journal of Economics
Computational Statistics and Data Analysis
Econometrica
Econometrics Journal
Econometric Reviews
Econometric Theory
International Journal of Forecasting
Journal of Applied Econometrics
Journal of the American Statistical Association
Journal of Business and Economics Statistics
Journal of Econometrics
Journal of Economic Dynamics and Control
Journal of Financial Econometrics
Journal of Forecasting
Journal of Multivariate Analysis
Journal of Risk
Quantitative Finance,
Studies in Nonlinear Dynamics and Econometrics
Review of Economic Studies
Review of Economics and Statistics

Reviewer for the Social Sciences and Humanities Research Council of Canada (SSHRC).

Reviewer for the National Science Foundation.

Member of the grants selection committee for SSHRC in 2012 and 2013.

Research Grants

- FQRSC-ANR, Appel à projets franco-québécois FRQSC-ANR; Québec team: Sílvia Goncalves (PI), Benoit Perron, and Prosper Dovonon; French team: Nour Meddahi (PI), René Garcia and Christian Bontemps, 2011-2014, $150,000 for the Québec team and Eur 150,000 for the French team.
- Social Sciences and Humanities Research Council of Canada (SSHRCC), 2010-2014, $63,000.
- Natural Sciences and Engineering Research Council of Canada (NSERCC), 2009-2014, $80,000.
- Social Sciences and Humanities Research Council of Canada (SSHRCC), joint with Nour Meddahi (PI: Sílvia Gonçalves) 2006-2009. $84,000.
- Social Sciences and Humanities Research Council of Canada (SSHRCC), 2003-2006. $45,936.
- Fonds Québécois de la Recherche sur la Société et la Culture (FQRSC), Programme d'établissement de nouveaux-chercheurs, 2003-2006. $40,500.
- Fonds Québécois de la Recherche sur la Société et la Culture (FQRSC), Projet de recherche en équipe (PI: Roch Roy, Statistics Department, Université de Montréal), 2003-2006. $139,227.
- Institut de Finance Mathématique de Montréal (IFM2), Support à la recherche aux jeunes chercheurs, 2003-2004. $10,000.

Professional Affiliations

Researcher, CIRANO, June 2000-present.

Research Fellow, CIREQ, December 2000-present.

Member: Econometric Society, American Statistical Association.

Teaching

Économétrie 1 (undergraduate statistics), Université de Montréal, Fall 2002-2004.

Économétrie 2 (undergraduate econometrics), Université de Montréal, Winter 2001-2005, 2009, Winter and Fall 2012, Winter 2013.

Élements d'économétrie (Masters econometrics), Université de Montréal, Winter 2001-2002, Fall 2002-2004. Fall 2009-2012.

Éléments de théorie économétrique (PhD econometrics), Université de Montréal, Winter 2009-2012.

Second-Year Masters Research Seminar, Université de Montréal, Summer 2004, Summer 2010.

Teaching Assistant (macroeconomics, microeconomics, statistics, finance), University of California, San Diego, 1996-1999.

Teaching Assistant (calculus, statistics, econometrics), Universidade Nova de Lisboa, 1993-1995.

Student Supervision

1. Hasina Rasata, Masters: “La prévisibilité des rendements financiers: analyse de bootstrap”, August 2002.

2. Jérôme Gagné, Masters: “Comparaison des performances relatives de différents modèles d’estimation de la valeur à risque”, July 2003.

3. David Lachapelle, Masters: “Choix du modèle économétrique dans l’estimation des mesures de risque d’inflation”, March 2004.

4. Louis Armand Paulin, Masters: “Prévisibilité de la prime de risque sur les bons : Inférence de Bootstrap”, March 2004.

5. Jérémie Lefebvre, Masters: “Bootstrapping event studies”, August 2007.

6. Alexandre Briand, Masters: “Application de la méthode de bootstrap aux tests de racine unitaire sur le taux d’intérêt canadien”, May 2006.
7. Rong Luo, Masters: “Bootstrapping Variance Ratio Tests”, September 2006.
8. Prosper Dovonon, Ph.D.: “Les modèles à facteurs hétéroscédastiques”, September 2007 (co-supervision with Éric Renault) (Assistant professor at Concordia University).
9. Hamzaoui, Issam, Masters: “Méthodes de simulations en économétrie”, June 2010.
10. Jerjir, Olfa, Masters: “Consommation, richesse agrégée et rendements des actifs: utilisation de la méthode bootstrap par paires”, February 2011.
11. Liu, Tao, Masters: “Predictability of Excess Market Returns in the Long-run using the Bootstrap”, August 2010.
12. Jarouche, Fadi, Masters: “Prévisibilité des rendements excédentaires des actifs financiers : Utilisation de la volatilité réalisée comme variable de prévision”, August 2010.
13. Thalman, Ben, Masters: “Jackknifing Long-horizon, Overlapping Observations Regressions”, August 2010.
14. Ulrich Koomla Hounyo, Ph.D. :“Méthodes de bootstrap robuste à la présence d’erreur de microstructure”, in progress (co-supervision with Ilze Kalnina) (post-doctoral fellow at Oxford-Creates).
15. Treyens, Pierre, Post-doc: “Bootstrapping quantile regressions”, Conseil de Recherches en Sciences Humaines du Canada (CRSH).
16. Adrienne Gagnon, Masters: “Le pouvoir de predictabilité de la volatilité retardée survit-t-il à des corrections du biais?”, April 2011.
17. Selma Chaker, Ph.D. : “Volatility and microstructure frictions”, May 2012 (co-supervision with Nour Meddahi) (senior analyst at the Banque of Canada).
18. Maximilien Kaffo, Ph.D. :“Bootstrapping panel data models”, August 2014.
19. Antoine Djogbenou, Ph.D. :“Bootstrapping factor models,” in progress.

Other Activities

- Masters director, June 2011-May 2013.
- Econometrics Workshop, Université de Montréal, organizer, 2002-2006 and 2010.
- Recruiting Committee, Université de Montréal, 2004/2005, 2008/2009 and 2012/2013 academic years.
- Conference Organizer: Second through fifth CIREQ Time Series Conference (joint with Marine Carrasco).
- Conference Organizer: CIREQ conference on High Dimensional Problems in Econometrics, May 4-5, 2012 (joint with Marine Carrasco).

Montréal, November 20, 2014