

CURRICULUM VITAE OF LUC BAUWENS

(September 1, 2023)



Personal information

BAUWENS Luc
Born in Bukavu (Congo) on October 5, 1952
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Degrees

1975: Licence en Science Economique, Université de l'Etat à Liège.
1975: Agrégation de l'enseignement secondaire supérieur en science économique appliquée, Université de l'Etat à Liège.
1976: Maîtrise en Sciences Economiques, Université catholique de Louvain.
1978: Diplôme Spécial en Statistique, Université catholique de Louvain.
1983: Doctorat en Sciences Economiques, Université catholique de Louvain.

Experience

Main appointments

- Professor at SKEMA Business School (Lille), February 2016 - July 2017.
- Full professor at Université catholique de Louvain (appointed in February 1991, emeritus since October 1, 2013). President of CORE (2010-2013). Research director of CORE (2006-2009). Chairman, Department of Economics (2000-2003). Co-director of CORE (1992-1995, 1995-1998).
- Senior Lecturer at EHESS (Ecole des Hautes Etudes en Sciences Sociales), Marseille (France), September 1987 – September 1991. Affiliated to GREQE (Groupe de Recherche en Economie Quantitative et Econométrie).
- Senior researcher and part-time Assistant Professor at FUCAM (Facultés Universitaires Catholiques de Mons, Belgium), December 1984 - August 1987.
- Consultant at The World Bank (Washington DC, USA), September 1983 - September 1984.
- Research assistant at CORE, August 1979 - November 1984 (on leave from September 1983 to September 1984) and September 1976 - August 1977.
- Economist at Office de Contrôle des Assurances (Bruxelles, Belgium), August 1977 - July 1979.

Secondary appointments/Visits abroad

- Invited professor at Université de Cergy-Pontoise (February-April 2018), Université de Lille 2 (March-April 2017, October-November 2017), University of Konstanz (2013-2015), BI Norwegian Business School (2013), University of Salerno (2013), University of Coimbra (2013), University of Sassari (2012), Université d'Aix-Marseille (2012) and University of Johannesburg (2012 and 2014).
- Affiliated professor, HEC Montréal, April 2008-December 2012.
- Invited researcher, Institute for Monetary and Economic Studies, Bank of Japan, January-March 2004.
- Invited professor at the University of Konstanz (June 2003, May-July 2004, May 2005, May 2006).
- Invited professor at the Johann Wolfgang-Goethe University of Frankfurt (January 2001).
- Invited part-time researcher at the Tinbergen Institute, Erasmus University, Rotterdam, Netherlands (January-April 1996).
- Invited professor at the University of Maastricht, Faculty of Economics and Business Administration (September 1995).
- Invited professor at the Free University of Brussels (1992-1994).
- Invited professor at the University of Montréal (March 1990).
- Invited researcher at the Econometric Institute, Erasmus University, Rotterdam, Netherlands (August 1988).
- Fellow of National Science Foundation, Netherlands (June 1988).
- Invited part-time researcher at the Econometric Institute, Erasmus University, Rotterdam, Netherlands (July-December 1987).
- Invited professor at Université d'Aix-Marseille II, France (April 1987).
- CORE member (November 1986 - June 1988).
- Invited professor at Faculté catholique de Lille (1985-1986), and at IESEG (Institut d'Economie Scientifique et de Gestion), Faculté catholique de Lille (1986-1987), France.
- Invited professor at Université catholique de Louvain (1986-1987).

Teaching

Econometrics (theoretical and applied, at introductory, intermediate and advanced level); Statistics; Microeconomics. Econometrics Seminar at CORE.

Thesis supervision

- 1-Fatemeh Shadman-Mehta (An empirical study of the determinants of real wages and equilibrium unemployment: the Phillips curve revisited, February 1996). Invited professor (part time) at the Université catholique de Louvain.
 - 2-José Roberto Lopez-Calix (Economic policy with dual exchange rate - the case of El Salvador, June 1996). Economist at The World Bank.
 - 3-Pierre Giot (Econometric studies on the formation of prices in financial and commodity markets, December 1999). Professor* at the University of Namur.
 - 4-David Veredas (Econometric modelling of financial durations, September 2002). Professor* at the Vlerick Business School.
 - 5-Jeroen Rombouts (Advances in the specification and the estimation of multivariate GARCH models, April 2004). Professor* at ESSEC (France).
 - 6-Antonio Cosma (Non parametric analysis for risk management and market microstructure, December 2004). Professor* at the University of Luxembourg.
 - 7-Erick Rengifo (Dynamic count data models: application to market microstructure, June 2005). Professor* at Fordham University.
 - 8-Helena Beltran-Lopez (Modeling liquidity in automated auction markets, September 2005). Works in the private sector.
 - 9-Genaro Sucarrat (Essays in empirical modelling of exchange rates, September 2006). Professor* at the Norwegian School of Management.
 - 10-Walid Ben Omrane (Volatility dynamics around information: empirical evidence from the Euro/Dollar currency market, November 2006). Professor* at Brock University.
 - 11-Diego Salzman (Emotions, beliefs and illusionary finance, June 2007). Senior Lecturer* at London South Bank University.
 - 12-Fausto Galli (Essays on econometrics of high-frequency data, September 2009). Professor* at University of Salerno.
 - 13-Andrea Silvestrini (Essays on temporal aggregation of econometric models, June 2009). Co-supervision with David Veredas. Economist at the Bank of Italy.
 - 14-Alfonso Valdesogo (Multivariate volatility using copulas, September 2009). Co-supervision with Andreas Heinen. Professor at Universitat de les Illes Balears.
 - 15- Jean-François Carpentier (Empirical essays on commodity prices, May 2012). Lecturer* at Université d'Aix-Marseille.
 - 16-Arnaud Dufays (Modeling structural changes in dynamic volatility models, July 2013). Postdoctoral fellow at CORE. Professor* at EDHEC Business School.
 - 17-Besik Samkharadze (Essays on multivariate GARCH models, September 2013). Works in the private sector.
 - 18-Diane Pierret (Essays on comovements and systemic risk in energy and financial sectors, June 2014). Professor* at Université de Luxembourg.
 - 19- Manuela Braione, Ph. D. student at UCL (Essays on component dynamic models for realized covariance matrices, October 2016). Works in the private sector.
- * with tenure

Awards

- Leonard J. Savage Thesis Award, 1984 for (B1).
Francqui Chair at the University of Namur, 2005-2006 (Volatility and Risk Management).
Fellow of the Society for Financial Econometrics (since June 2014).
Fellow of the International Association for Applied Econometrics (since November 2021).

Publications

Books

- (B4) *Econometric Modelling of Stock Market Intraday Activity* (with P. Giot). Kluwer Academic Publishers, 2001.
- (B3) *Bayesian Inference in Dynamic Econometric Models* (with M. Lubrano and J-F. Richard). Oxford University Press, 1999.
- (B2) *Changing Trade Patterns in Manufactured Goods: an Econometric Investigation* (with B. Balassa). North-Holland, 1988.
- (B1) *Bayesian Full Information Analysis of Simultaneous Equation Models Using Integration by Monte Carlo*. Springer Verlag, 1984.

Papers in refereed journals

- (P58) We modeled long memory with just one lag! (with G. Chevillon and S. Laurent). *Journal of Econometrics*, 236, Article 105467, 2023. Revision of CORE DP 2022/16.
- (P57) DCC-HEAVY: a multivariate GARCH model based on realized variances and correlations (with Yongdeng Xu). *International Journal of Forecasting*, 39, 938-955, 2023. Revision of CORE DP 2019/25.
- (P56) Modelling Realized Correlations: a Class of Hadamard Exponential Models (with E. Otranto). *Journal of Financial Econometrics*, nbac007, 2022 and 21/4, 1376-1401, 2023. Revision of CORE DP 2020/34 and CRENoS WP 2020-07.
- (P55) Nonlinearities and Regimes in Conditional Correlations with Different Dynamics (with E. Otranto). *Journal of Econometrics*, 217, 496-522, 2020. Revision of CORE DP 2018/09.
- (P54) State-Space Models on Stiefel Manifold with A New Approach to Nonlinear Filtering (with Yukai Yang). *Econometrics* 6, 48, 2018.
- (P53) A new approach to volatility modeling: the factorial hidden Markov volatility model (with Maciej Augustyniak and Arnaud Dufays). *Journal of Business and Economic Statistics*. 37/4, 696-709, 2019. Revision of CORE DP 2016/42.
- (P52) A dynamic component model for forecasting high-dimensional realized covariance matrices (with M. Braione and G. Storti), *Econometrics and Statistics*, 1, 40-61, 2017. Revision of CORE DP 2016/01.
- (P51) Forecasting comparison of long term component models for realized covariance matrices (with M. Braione and G. Storti), *Annales d'Economie et de Statistique*, 123-124,103-134, 2016. Revision of CORE DP 2014/53.
- (P50) Autoregressive Moving Average Infinite Hidden Markov-Switching Models (with J-F Carpentier and A. Dufays). *Journal of Business and Economic Statistics*, 35/2, 162-182, 2017. Revision of CORE DP 2015/7.
- (P49) Modeling the dependence of conditional correlations on market volatility (with E. Otranto). *Journal of Business and Economic Statistics*, 34/2, 254-268, 2016. Revision of CORE DP 2013/14.
- (P48) Estimation and empirical performance of non-scalar DCC models (with L. Grigoryeva, J.-P. Ortega). *Computational Statistics and Data Analysis*, 100, 17-36, 2016. Revision of CORE DP 2014/12.
- (P47) A Bayesian method of change-point estimation with recurrent regimes: application to GARCH models (with A. Dufays and B. de Backer). *Journal of Empirical Finance*, 29, 207-229, 2014. Revision of CORE DP 2011/55.
- (P46) The contribution of structural break models to forecasting macroeconomic series (with G. Koop, D. Korobilis and J. Rombouts), *Journal of Applied Econometrics*, 30, 596-620, 2015. Revision of CORE DP 2011/3.

- (P45) Marginal likelihood for Markov-switching and change-point GARCH models (with A. Dufays and J. Rombouts), *Journal of Econometrics*, 178, 508-522, 2014. Revision of CORE DP 2011/13.
- (P44) Forecasting long memory processes subject to structural breaks (with S-H. Wang and C. Hsiao). *Journal of Econometrics*, 177/2, 171-184, 2013. Revision of CORE DP 2012/48.
- (P43) Multivariate volatility modeling of electricity futures (with C. Hafner and D. Pierret). *Journal of Applied Econometrics*, 28/5, 743-761, 2013. Revision of CORE DP 2011/11.
- (P42) The resistible decline of European science (with G. Mion and J-F. Thisse). *Recherches Economiques de Louvain*, 77, 5-31, 2011. Revision of CORE DP 2007/92.
- (P41) On marginal likelihood computation in change-point models (with J. Rombouts). *Computational Statistics and Data Analysis*, 56, 3415-3429, 2012. Revision of CORE DP 2009/61.
- (P40) Theory and inference for a Markov switching GARCH model (with A. Preminger and J. Rombouts). *Econometrics Journal* 13, 218-244, 2010. Revision of CORE DP 2007/55.
- (P39) Intra-daily FX optimal portfolio allocation (with E. Rengifo and W. Ben Omrane). *Computational Statistics and Data Analysis* 54/11, 2400-2418, 2010. Revision of CORE DP 2006/10.
- (P38) A component GARCH model with time varying weights (with G. Storti). *Studies in Nonlinear Dynamics & Econometrics* 13/2 article 1, 2009. Revision of CORE DP 2007/19.
- (P37) General to specific modelling of exchange rate volatility (with G. Sucarrat). *International Journal of Forecasting* 26, 885-907, 2010. Revision of CORE DP 2006/21.
- (P36) Efficient importance sampling for ML estimation of SCD models (with F. Galli). *Computational Statistics and Data Analysis* 53, 1974-1992, 2009. Revision of CORE DP 2007/53.
- (P35) The moments of Log-ACD models (with F. Galli and P. Giot). *Qualitative and Quantitative Analysis in Social Sciences* 2, 1-28, 2008. Revision of CORE DP 2003/11.
- (P34) Bayesian inference for the mixed conditional heteroskedasticity model (with J. Rombouts). *Econometrics Journal* 10, 408-425, 2007. Revision of CORE DP 2005/85.
- (P33) Bayesian inference in dynamic disequilibrium models: an application to the Polish credit market (with M. Lubrano). *Econometric Reviews* 26, 469-486, 2007. Revision of CORE DP 2006/50.
- (P32) Bayesian clustering of many GARCH models (with J. Rombouts). *Econometric Reviews* 26, 365-386, 2007. Revision of CORE DP 2003/87.
- (P31) Multivariate mixed normal conditional heteroskedasticity (with J. Rombouts and C. Hafner). *Computational Statistics and Data Analysis* 51, 3551-3566, 2007. Revision of CORE DP 2006/12.
- (P30) Stochastic conditional intensity processes (with N. Hautsch). *Journal of Financial Econometrics* 4/3, 450-493, 2006. Revision of CORE DP 2003/103.
- (P29) Multivariate GARCH models: a survey (with S. Laurent and J. Rombouts). *Journal of Applied Econometrics* 21/1, 79-109, 2006. Revision of CORE DP 2003/31.
- (P28) Econometric analysis of intra-daily activity on Tokyo Stock Exchange. *Monetary and Economic Studies* 24/1, 1-24, 2006.
- (P27) Exchange rate volatility and the mixture of distribution hypothesis (with D. Rime and G. Sucarrat). *Empirical Economics* 30/4, 889-911, 2006. Revision of CORE DP 2005/58. Reprinted in L. Bauwens, D. Veredas, and W. Pohlmeier (Eds.), *High Frequency Financial Econometrics: Recent Developments*, Physica Verlag, 2008.
- (P26) News announcements, market activity and volatility in the euro/dollar foreign exchange market (with W. Ben Omrane and P. Giot). *Journal of International Money and Finance* 24, 1108-1125, 2005. Revision of CORE DP 2003/29.
- (P25) A new class of multivariate skew densities, with application to GARCH models (with S. Laurent). *Journal of Business and Economic Statistics* 23/3, 346-354, 2005. Revision of CORE DP 2002/20.

- (P24) Adaptive radial-based direction sampling: a class of flexible and robust Monte Carlo integration methods (with C. Bos, R. van Oest, and H.K. van Dijk). *Journal of Econometrics* 123/2, 201-225, 2004. Revision of CORE DP 9957.
- (P23) A comparison of financial duration models via density forecasts (with P. Giot, J. Grammig, and D. Veredas). *International Journal of Forecasting* 20, 589-609, 2004. Revision of CORE DP 2000/60.
- (P22) The stochastic conditional duration model: a latent factor model for the analysis of financial durations (with D. Veredas). *Journal of Econometrics* 119/2, 381-412, 2004. Revision of CORE DP 9958.
- (P21) Ranking European economics departments: a statistical approach (with A. Kirman, M. Lubrano, and C. Protopopescu). *Journal of the European Economic Association* 1 (6), 1367-1401, 2003. Revision of CORE DP 2003-50.
- (P20) Asymmetric ACD models: introducing price information in ACD models with a two-state transition model (with P. Giot). *Empirical Economics* 28(4), 1-23, 2003. Revision of CORE DP 9844.
- (P19) Bayesian option pricing using asymmetric GARCH models (with M. Lubrano). *Journal of Empirical Finance* 9, 321-342, 2002. Revision of CORE DP 9759.
- (P18) The logarithmic ACD model: an application to the bid-ask quote process of three NYSE stocks (with P. Giot). *Annales d'Economie et de Statistique* 60, 117-149, 2000. Revision of CORE DP 9789.
- (P17) Art experts and auctions: are pre-sale estimates unbiased and fully informative? (with V. Ginsburgh). *Recherches Economiques de Louvain/Louvain Economic Review* 66, 131-144, 2000. Revision of CORE DP 9438.
- (P16) Bayesian inference on GARCH models using the Gibbs sampler (with M. Lubrano). *Econometrics Journal* 1, C23-C46, 1998. Revision of CORE DP 9627.
- (P15) A Gibbs sampling approach to cointegration (with P. Giot). *Computational Statistics* 13, 339-368, 1998. Revision of CORE DP 9716.
- (P14) Estimating end-use demand: a Bayesian approach (with D. Fiebig and M. Steel). *Journal of Business and Economic Statistics* 12, 221-231, 1994.
- (P13) The pathology of the natural conjugate prior density in the regression model. *Annales d'Economie et de Statistique* 23, 49-64, 1991.
- (P12) The law of large (small?) numbers and the demand for insurance (with L. Eeckhoudt, E. Briys and P. Scarmure). *Journal of Risk and Insurance* 58, 438-451, 1991.
- (P11) Bayesian diagnostics for heterogeneity (with M. Lubrano). *Annales d'Economie et de Statistique* 20/21, 17-40, 1991.
- (P10) The determinants of intra-European trade in manufactured goods (with B. Balassa). *European Economic Review* 32, 1421-1437, 1988. Reprinted in A. Jacquemin and A. Sapir (Eds.), *The European Internal Market: Trade and Competition*. Oxford University Press, 1989.
- (P9) Inter-industry and intra-industry specialization in manufactured goods (with B. Balassa). *Weltwirtschaftliches Archiv* 124, 1-13, 1988.
- (P8) Bayesian specification analysis and estimation of simultaneous equation models using Monte Carlo Methods (with A. Zellner and H.K. van Dijk). *Journal of Econometrics* 38, 39-72, 1988.
- (P7) Théorie de l'information et diagnostic médical (with L. Eeckhoudt and T. Lebrun). *L'Actualité Economique* 63, 243-254, 1987.
- (P6) Intra-industry specialization in a multi-country and multi-industry framework (with B. Balassa). *Economic Journal* 97, 923-939, 1987.
- (P5) La valeur diagnostique de la scintigraphie au Thallium 201 dans la détermination de la malignité du nodule froid thyroïdien (with L. Eeckhoudt et alii). *Bulletin du cancer* 74, 88-94, 1987.

- (P4) De l'intérêt des méthodes d'évaluation dans la décision et la pratique du médecin (with T. Lebrun et alii). *Journal d'Economie Médicale* 5, 183-199, 1987.
- (P3) A poly-t random variable generator, with application to Monte Carlo integration (with J.-F. Richard). *Journal of Econometrics* 29, 19-46, 1985.
- (P2) An export model for the Belgian industry (with G. d'Alcantara). *European Economic Review* 22, 265-276, 1983.
- (P1) Posterior moments of elasticities between real wages and unemployment in Belgium : an application of Bayesian inference by Monte Carlo integration. *Recherches Economiques de Louvain* 49, 47-59, 1983.

Papers in edited collective volumes

- (C10) Computationally efficient inference procedures for vast dimensional realized covariance models (with G. Storti). In: Matteo Grigoletto, Francesco Lisi and Sonia Petrone (Eds.), *Complex Models and Computational Methods in Statistics*, Springer Verlag, 2013. Formerly CORE DP 2012/28.
- (C9) Bayesian Methods (with D. Korobilis). In: N. Hashimzade and M. Thornton (Eds.), *Handbook of Research Methods and Applications on Empirical Macroeconomics*, Edward Elgar Publishing, 2013. Revision of CORE DP 2011/61.
- (C8) Volatility Models (with C. Hafner and S. Laurent). In: L. Bauwens, C. Hafner and S. Laurent (Eds.), *Handbook of Volatility Models and their Applications*, John Wiley & Sons, 2012. Revision of CORE DP 2011/58.
- (C7) Modelling financial high frequency data with point processes (with N. Hautsch). In: Torben G. Andersen, Richard A. Davis, Jens-Peter Kreiss, Thomas Mikosch (Eds.), *Handbook of Financial Time Series*. Springer Verlag, 2009. Available as CORE DP 2006/80.
- (C6) Econometrics (with J. Rombouts). In: J. Gentle, W. Härdle and Y. Mori (Eds.), *Handbook of Computational Statistics*. Springer Verlag, 2004.
- (C5) Trends and breaking points of the Bayesian econometric literature (with M. Lubrano). In: A. Kirman and L.-A. Gérard-Varet (Eds.), *Economics beyond the Millennium*. Oxford University Press, 1999 (pp 273-299).
- (C4) Identification restrictions and posterior densities in cointegrated Gaussian VAR systems (with M. Lubrano). In: T.B. Fomby (Ed.), *Advances in Econometrics*, Vol. 11B, Bayesian Methods Applied to Time Series Data. JAI Press, 1996 (pp 3-28).
- (C3) Approximate HPD regions for testing residual autocorrelation using augmented regressions (with A. Rasquero). In: W. Härdle and L. Simar (Eds.), *Computer Intensive Methods in Statistics*. Physica Verlag, 1993 (pp 47-61).
- (C2) Bayesian limited *information analysis revisited* (with H.K. van Dijk). In: J.J. Gabszewicz, J.-F. Richard and L.A. Wolsey (Eds.), *Economic Decision Making: Games, Econometrics and Optimisation*. North-Holland, 1990 (pp 385-424).
- (C1) Comparative advantage in manufactured goods in a multi-country, multi-commodity, and multi-factor model (with B. Balassa). In: T. Peeters, P. Praet and P. Reding (Eds.), *International Trade and Exchange Rates in the Late Eighties*. North- Holland, 1985 (pp 31-52).

Editorials, proceedings and other papers

- (O10) Editors' introduction: The Econometrics of Industrial Organization (with A. Escribano and M. Lubrano), *Journal of Applied Econometrics* 22/7, 1153-1156, 2007.
- (O9) Editors' introduction, special issue of Empirical Economics on "High Frequency Financial Econometrics" (with D. Veredas and W. Pohlmeier). *Empirical Economics* 30/4, 791-794, 2006. Reprinted in slightly extended form in L. Bauwens, D. Veredas, and W. Pohlmeier (Eds.), *High Frequency Financial Econometrics: Recent Developments*, Physica Verlag, 2008.
- (O8) Editors' introduction: Causality and Exogeneity in Econometrics (with P. Boswijk and J-P. Urbain). *Journal of Econometrics* 132/2, 305-309, 2006.
- (O7) Editors' introduction: Recent advances in Bayesian econometrics

(with M. Lubrano and H. van Dijk). *Journal of Econometrics* 123/2, 197-199, 2004.

(O6) Adaptive polar sampling: a new MCMC method for ill-behaved posterior surfaces (with C. Bos and H.K. van Dijk). In: W. Jansen and J.G. Bethlehem (Eds.) COMPSTAT 2000 Proceedings in Computational Statistics. Heidelberg: Physica Verlag, 2000 (pp 13-14).

(O5) Modelling and predicting price movements in stock markets with autoregressive conditional duration models (with P. Giot). A simplified and reduced version of CORE DP 9844 - see (P20). Bulletin EU & US Inflation and Macroeconomic Analysis, Instituto Flores de Lemus de Estudios Avanzados en Economia N.65, 49-56, February 2000.

(O4) Recent developments in the econometrics of financial markets using intra-day data (with P. Giot). Summary of a conference given on June 3, 1999, at Instituto Flores de Lemus de Estudios Avanzados en Economia, Univ. Carlos III, Madrid. Bulletin EU & US Inflation and Macroeconomic Analysis, Instituto Flores de Lemus de Estudios Avanzados en Economia N.57, 60-70, June 1999.

(O3) Editors' introduction: first riverboat conference on Bayesian econometrics and statistics (with W. Polasek and H.K. van Dijk). *Journal of Econometrics* 75, 1-5, 1996.

(O2) Editors' introduction: Bayesian and classical econometric modeling of time series (with M. Lubrano). *Journal of Econometrics* 69, 1-4, 1995.

(O1) Cost-effectiveness, cost-benefit, cost-utility as related to medical decision making and practice: some considerations from health economics (with T. Lebrun et alii). In: Clinical Decision Analysis in Medical Care and Teaching, Proceedings of the First Congress of the European Society for Medical Decision Making. Leiden, 1986.

Edited books

L. Bauwens, C. Hafner, and S. Laurent (Eds.), *Handbook of Volatility Models and Their Applications*. Wiley, 2012.

L. Bauwens, D. Veredas, and W. Pohlmeier (Eds.), *High Frequency Financial Econometrics: Recent Developments*, Physica Verlag, 2008.

Working papers

(W11) The contribution of realized covariance models to the economic value of volatility timing (with Yongdeng Xu). CORE DP 2023/18.

(W10) Multiplicative conditional correlation models for realized covariance matrices (with M. Braione and G. Storti). CORE DP 2016/41.

(W9) Dynamic conditional correlation models for realized covariance matrices (with G. Storti and F. Violante). CORE DP 2012/60.

(W8) Regime switching GARCH models (with A. Preminger and J. Rombouts). Revised version of CORE DP 2006/11.

(W7) The moments of first-order Log-ACD models (with P. Giot). Manuscript, June 2000. Revised and published as (P35).

(W6) Identifying long-run behaviour with non-stationary data (with J. Hunter). CORE DP 2000/43.

(W5) Adaptive polar sampling: a class of flexible and robust integration methods (with C. Bos, R. van Oest, and H.K. van Dijk). Extensive revision of CORE DP 9957 and of Tinbergen Institute Discussion Paper 98-071/4. Published as (P24).

(W4) Bivariate modelling of interest rates with a cointegrated VAR-GARCH model (with D. Deprins and J.-P. Vandeuren). CORE DP 9780.

(W3) On the weak consistency of the quasi-maximum likelihood estimator in VAR models with BEKK-GARCH(1,q) errors (with J.-P. Vandeuren). CORE DP 9538.

(W2) A presentation of BIP (Bayesian Interactive Program) (with F. Arahamian and M. Lubrano). Mimeo, February 1990.

(W1) Medical decision making and the concern for safety: an application to the solitary pulmonary nodule problem (with M. Beuthe and L. Eeckhoudt). Mimeo, 1986.

Reports

- (R4) Economic research in Belgian universities (1994-1999). Mimeo. April 2001.
(A summary report of this paper was published in De Financieel Economische Tijd of May 4, 2001).
- (R3) Internal evaluation report on teaching of economics at UCL, prepared for the external evaluation of the department of economics held in February 2000. October 1999
- (R2) A new method to rank university research and researchers in economics in Belgium. Mimeo, February 1999.
- (R1) Economic research in Belgian universities (1993-1997). Mimeo, November 1998.
(A summary report of this paper was published in De Financieel Economische Tijd of February 16, 1999).

Editorial activities

- Associate editor of the Journal of Business and Economic Statistics (2015-2018).
- Member of the editorial board of the Journal of Applied Econometrics (2004-2018).
- Associate editor of the Journal of Financial Econometrics (2001-2018).
- Associate editor of Annals of Computational and Financial Econometrics (2010-2015).
- Associate editor of International Econometric Review, formerly Eurasian Review of Econometrics (2006-2016).
- Associate editor of Empirical Economics (2001-2009).
- Associate editor of Computational Statistics (1992-2008).
- Guest editor of special issues of several journals (see also Editorials, Proceedings and Other Papers in Publication List).

Research contracts and funds

- Semester (January-June 2017) Stochastic Dynamical Models in Mathematical Finance, Econometrics and Actuarial Sciences, (200.000 Swiss Francs, with J-P. Ortega and Y. Kabanov), at Centre Interfacultaire Bernouilli (CIB) of Ecole Polytechnique Fédérale de Lausanne. Funded by Swiss National Science Foundation and CIB.
- ARC Funds, Université catholique de Louvain, 2012-2017 (700,000 euros, joint with C. Hafner, J. Segers, S. Van Bellegem and R. von Sachs): Stochastic Modeling of Dependence: Systems under Stress.
- Special Research Funds, Université catholique de Louvain, 2011-2013 (67,500 euros: Volatility Models with Markovian Regime Switching.
- ARC Funds, Université catholique de Louvain, 2007-2012 (700,000 euros, joint with C. Hafner, S. Van Bellegem, and R. von Sachs): Econometric Modeling of Multivariate Financial Time Series.
- Special Research Funds, Université catholique de Louvain, 2005-2007 (125,000 euros, joint with Rainer von Sachs): Multivariate Time Series Modelling and Estimation.
- Sponsoring from the National Bank of Belgium for "Dynamic Count Data Models: Application to Financial Market Microstructure", 2004-2005 (22,000 euros).
 - Research and training network "Microstructure of Financial Markets in Europe", 2002-2006 (192,000 euros). With Aarhus, Carlos III Madrid, Konstanz, Oxford, Tilburg, and Paris (CREST).
- "Ranking Economics Departments throughout Europe", winning bid for the European Economic Association, 2000-2002 (30,000 euros), with Michel Lubrano and Alan Kirman. See article P21.
- Special Research Funds, Université catholique de Louvain, 1999-2001 (1,800,000 BF): Econometrics of the Functioning of Stock Markets.
- Human Capital and Mobility Programme of the European Community, 1995-1998 (50,000

Ecus): Econometric Inference Using Simulation Techniques. With CREST, GREQE, CORE, Carlos III Madrid, Nuffield College, and The European University Institute.

-Scientific Development Fund, Université catholique de Louvain, 1992-1994 (1,450,000 BF): Econometric Methods and Applications.

-FNRS, 1991-1992 (200,000 BF): Econometric Modelling from a Bayesian Viewpoint.

-Belgian-French Cooperation CGRI-FNRS/CNRS, 1992-1994: Bayesian econometrics.

-Since 1991, scientific supervisor of several fellowships of the EC programs "Human Capital and Mobility" and "Training and Mobility of Researchers".

Consulting and evaluation

-Consulting in econometrics for Electrabel, Euroclear, El Paso, SWIFT.

-External expert for FCAR (Québec), NWO (Netherlands), FWF (Austria), NSF (USA), and the European Commission.

-Member of the scientific committee for the evaluation of research in economics in Belgium, for De Financieel Economische Tijd (as of 1998). See other papers (R1 and R2).

-Conseil Central de l' Economie, Brussels, yearly 1997-2012 (prediction of effective annual working time in Belgium, France, Germany, and the Netherlands).

Organization of conferences

-Member of the program committee of the International Conference "Quantitative Finance and Financial Econometrics" (QFFE 2018), at Aix-Marseille University, May 30-June 1, 2018.

-Member of the program committee for ESOBE 2013, Oslo, August 22-23, 2013.

-European Seminar on Bayesian Econometrics (ESOBE), Brussels, November 4-5, 2011.

-Member of the program committee for the 3rd International Conference on Computational and Financial Econometrics (CFE'09), 29-31 October 2009, Limassol, Cyprus.

-Member of the program committee of SoFiE Annual Conferences: Geneva (June 19-21, 2009); Oxford (June 20-22, 2012); Singapore (June 12-14, 2013); Toronto (June 11-13, 2014); Aarhus (June 23-26, 2015); Hong Kong (June 14-17, 2016).

-Member of the program committee for the 2nd International Workshop on Computational and Financial Econometrics (CFE'08), 19-21 June 2008, Neuchâtel, Switzerland.

-Member of the program committee for the International Conference on High Frequency Finance, University of Konstanz, May 18-19, 2006.

-Chairman of the program committee of the 17th EC² Conference, Rotterdam, December 15-16, 2006.

-Member of the program committee of the 16th (Istanbul) and 18th (Faro) EC² conferences.

-EFA (European Finance Association) meeting in Maastricht: member of the program committee (2004).

-Coordinator of the series of European Conferences in Quantitative Economics and Econometrics (EC²) (2001-2013).

-Member of the program committee and organizer of the 12th EC² conference, Louvain-La-Neuve, December 2001.

-Recent Advances in Bayesian Econometrics, Marseille, June 14-15, 2001. See (O8).

-PAI Conference on Financial Econometrics, Leuven, January 2001.

-Fifth Workshop on Finance and Econometrics, FUSL, December 1997.

-XVIII-th Meeting of Belgian and French Statisticians, CORE and Institute of Statistics, November 1997.

-ESEM (Econometric Society European Meeting): member of the program committee for Bologna (1987), Istanbul (1996), Madrid (2004).

-First Workshop on Finance and Econometrics, CORE, March 1994.

- First Riverboat (Basel-Amsterdam) Conference on Bayesian Econometrics and Statistics, May 1993. See (O3).
- International Conference on Bayesian and Classical Econometric Modeling of Time Series, Marseille, June 1992. See (O2).

Seminars, conferences and short courses

Numbers and letters between parentheses refer to the publication list. Presentations of papers by my co-authors are not included in the following list.

* means that I was invited speaker in a conference, workshop or summer school.

- Marseille, November 23, 2021, Econometrics Seminar, GREQAM (P58).
- Orebro University, November 15-16, 2021, Workshop on Financial Econometrics, online, (P58).
- University of Messina, Ph. D. Seminar "Economics, Management and Statistics" (online), October 26, 2020 (P56).
- CREST (Paris), Econometrics Seminar, January 17, 2019 (P55).
- Marseille, May 30-June 1, 2018, International Conference "Quantitative Finance and Financial Econometrics--QFFE 2018", (P55).
- ESSEC, April 11, 2018, Workshop on Time Series (P55).
- ESSEC, February 8, 2018, Research Seminar of ESSEC Research Center (P53).
- Marseille, October 3, 2017, Econometrics Seminar, GREQAM (P53).
- *Heidelberg, September 14-15, 201, keynote speaker at the Inaugural Conference of the Center for Econometrics and Statistics, Heidelberg University, 7 (P53).
- Tenth International Conference on Computational and Financial Econometrics (CFE'16), Sevilla, December 9-11, 2016 (P51).
- *Messina, September 16, 2016, Department of Economics Workshop 'Recent advances in financial econometrics' (P51).
- Vienna, June 3, 2016, Vienna University of Economics and Management, Institute of Mathematics and Statistics (P50).
- *Paris, November 5-6, 2015, ESSEC Business School, Advances in Time Series and Forecasting - conference in honour of Professor Jean-Pierre Indjehagopian (P50).
- *Hamburg, September 15-18, 2015, Statistical Week (International Conference of the German Statistical Society) (P51).
- Society for Financial Econometrics, 8th Annual Conference, Aarhus, June 23-26, 2015 (P51).
- *Rotterdam, June 19, 2015, Workshop Bayesian Econometric Forecasting and Policy Analysis (P50).
- *Marseille, May 17-18, 2015, Erasmus University, Workshop on New Developments in Modeling and Predicting Extreme Risks in Finance (P51).
- Taipei, March 2015, Academia Sinica, Department of Statistics (P51).
- National Taiwan University, Department of Quantitative Finance, March 2015 (P51).
- Venice, February 2015, Universita Ca Foscari, Department of Economics (P51).
- Lille, SKEMA Business School, January 2015 (P51).
- *Barcelona, December 2014, EC² meeting: Advances in Forecasting (P51).
- University of Johannesburg, Seminar of the Department of Economics and Econometrics, October 2014 (P46).
- Society for Financial Econometrics, 7th Annual Conference, Toronto, June 11-14, 2014 (P48).
- *University of Bucharest, Workshop on Empirical Methods in Macroeconomic Policy Analysis, May 12-13, 2014 -- keynote speaker (P51).

- *University of Besançon, Conference "Time Series, Econometrics and Finance", May 5-6, 2014 (P51).
- *Tokyo, Hitotsubashi University, International Conference on Econometrics for Macroeconomics and Finance, March 15-16, 2014 (P48).
- KU Leuven, ORSTAT Seminar, February 2014 (P48).
- *International Workshop on Regime-Switching Models in Finance, Fraunhofer Institute for Industrial Mathematics and University of Kaiserslautern, November 22-23, 2013 (P45).
- Maastricht University, GSBE Seminar, November 21, 2013 (W9).
- University of Konstanz, Faculty of Economics Seminar, November 6, 2013 (P46).
- University of Konstanz, Ph. D. course in Bayesian Econometrics, November 4-8, 2013
- *University of Namur, 7th International Workshop "Methods in International Finance", September 23-24, 2013 (P49).
- *University of Salerno, Workshop in Frontiers of Times Series Analysis, September 19-20, 2013 (P45).
- BI Norwegian Business School, Seminar of the Department of Economics, September 11, 2013 (P45).
- BI Norwegian Business School, Ph. D. course in Bayesian Econometrics, September 9-13, 2013.
- *European Seminar on Bayesian Econometrics, Oslo, 22-23 August 2013. (P46).
- Society for Financial Econometrics, 6th Annual Conference, Singapore, June 12-14, 2013 (P49).
- Erasmus University, Rotterdam, Econometrics Workshop, April 18, 2013 (W9).
- University of Coimbra, Spring course in Bayesian Econometrics, April 5-6, 2013.
- Humboldt-Copenhagen Conference 2013, Recent Developments in Financial Econometrics, March 14-16, 2013 (P49).
- CREST (Paris), Econometrics Seminar, February 28, 2013 (W9).
- University of Bath, Economics Department Seminar, January 30, 2013 (W9).
- *Seventh International Conference on Computational and Financial Econometrics (CFE'12), Oviedo, December 1-3, 2012 -- keynote speaker (P45).
- GREQAM Econometrics and Statistics Seminar, October 2012 (W9).
- Montreal Econometrics Seminar, September 20, 2012 (W9).
- University of Pennsylvania, Econometrics Workshop, September 17, 2012 (W9).
- University of Pittsburgh, Econometrics Workshop, September 14, 2012 (W9).
- Society for Financial Econometrics, 5th Annual Conference, Oxford, June 2012 (W9).
- *National University of Singapore (Institute for Mathematical Sciences), June 2012, Financial Time Series Analysis: High-dimensionality, Non-stationarity and the Financial Crisis (W9).
- Singapore Management University, June 2012, SMU-ESSEC Symposium on Empirical Finance and Financial Econometrics (P45).
- *University of Sassari, April 2012, Workshop on Recent Advances in Time Series (P45).
- Université de France-Comté (Besançon), April 2012, Séminaire de l'UFR de Mathématiques (W9).
- *University of Johannesburg, February 2012, "An econometrician's thoughts about the recent financial crisis", Invited Public Lecture, Faculty of Economic and Financial Sciences.
- Brussels, November 2011, European Seminar on Bayesian Econometrics (P45 & P47).
- Aarhus, October 2011, CREATES seminar (W9).
- *Princeton, October 2011, Conference on Measuring Risks, Bendheim Center for Finance (W9).
- *Louvain-La-Neuve, May 2011, Workshop on Econometric and Statistical Modeling of Multivariate Time Series (W9).
- Sassari, April 2011, Economics Seminar (W9).

- *Brussels, March 2011, Latest Developments in Financial Econometrics, Workshop at ECARES (P45).
- Sassari, October 2010, Economics Seminar.
- Salerno, July 2010, Economics and Statistics Seminar (P46).
- Rome, July 2010, Bank of Italy, Research Seminar in Economics and International Relations (P46).
- *Rimini, June 2010, The Rimini Conference in Economics and Finance: Bayesian Econometrics Workshop Guest Lecture (P46).
- Marseille, June 2010, GREQAM Statistics and Econometrics Seminar (P46).
- Limassol, October 2009, 3rd Conference on Computational and Financial Econometrics (CFE'09) (P41).
- Oxford, October 2009, Nuffield College (P41).
- Taipei, April 2009, Academica Sinica (P38).
- Xiamen, March 2009, Xiamen University, WISE (P38).
- Hangzhou, March 2009, Zhejiang University, College of Economics (P38).
- Athens, October 2008, University of Piraeus.
- *Konstanz, October 2008, International Conference on Price, Liquidity, and Credit Risks.
- Konstanz, July 2008, Faculty of Economics Seminar (P42).
- Pamplona, May 2008 University of Navarra, (P42).
- *Marseille, April 2008, Inference and Tests in Econometrics – A Tribute to Russell Davidson (P40).
- Erasmus University Rotterdam, April 2008 (P42).
- University of Gent, March 2008 (P42).
- ECORE seminar, March 2008 (P42).
- KU Leuven, February 2008 (P42).
- Tor Vergata University, Rome, February 2008 (P42).
- Marseille, January 2008, GREQAM Statistics and Econometrics Seminar (P42).
- Paris School of Economics, January 2008 (P42).
- University of St Andrews, Scotland, November 2007 (P38).
- University of Strathclyde, Glasgow, November 2007 (P40).
- HEC Montréal, September 2007 (P40).
- Budapest, August 2007, ESEM (P38).
- Montréal, June 2007, 13th International Conference on Computing in Economics and Finance (P38).
- Berlin, May 2007, Quantitative Finance Seminar, Humboldt University (P38).
- Aarhus, April 2007, CREATES seminar (P38).
- Brussels, December 2006, Econometrics and Statistics Seminar at ECARES (W8).
- *Stockholm, September 2006, Sveriges Riksbank Workshop "Bayesian Econometric Methodology" (W8).
- *London, June 2006, Brunel University (W8).
- Konstanz, May 2006, Faculty of Economics Seminar (P29).
- Konstanz, May 2006, International Conference on High Frequency Finance (W8).
- *Salerno, May 2006, Lecture on "Multivariate Volatility Prediction", at the Summer School of the Italian Statistical Society (P29).
- *Venice, November 2005, Università Ca Foscari, Department of Economics, short course on multivariate GARCH models (P29).
- *Amsterdam, October 2005, Workshop on Financial Econometrics, Dutch Statistical Society (P30).
- *University of Helsinki, August 2005, RUESG Workshop in Financial Econometrics (P30).
- York, June 2005, University of York, Statistics/Econometrics Seminar (P30).
- *Gent, May 2004, International Symposium on Data Mining, (Modelling Financial Point Processes).

- Bergen, April 2004, Norwegian School of Economics and Business Administration (P26).
- Singapore, April 2004, Singapore Management University (P30).
- Tokyo, March 2004, Hitotsubashi University (P30).
- Tokyo, January 2004, Institute for Monetary and Economic Studies, Bank of Japan (P28).
- Sendai, March 2004, Tohoku University, Department of Economics (P25).
- Nagoya, March 2004, Nagoya University, Department of Economics (P29).
- *Tokyo, February 2004, International Symposium of Financial Time Series (P32).
- Sapporo, February 2004, Hokkaido University, Department of Economics (P26).
- Tokyo, January 2004, Institute for Monetary and Economic Studies, Bank of Japan (Modelling Financial Point Processes).
- Tokyo, January 2004, Applied Statistics Seminar, University of Tokyo (P30).
- Berlin, November 2003, Quantitative Finance Seminar, Humboldt University (P32).
- Marseille, January 2003, Statistics and Econometrics Seminar (GREQAM) (P32).
- Linz, September 2003, Econometric Time-Series Analysis (P32) and (P30).
- *Aix-Marseille, September 2003, Ecole Doctorale N°372 de Sciences Economique et de Gestion and European Doctorate Group in Economics (Course on Modelling Financial Point Processes).
- *Ankara, September 2003, ERC/METU International Conference in Economics VII (P30).
- Stockholm, August 2003, ESEM (P30).
- *Berlin, August 2003, 54th session ISI, invited paper in the session 'Use of statistics in the financial markets' (P30).
- Istanbul, May 2003, Istanbul Bilgi University (P29).
- Louvain-La-Neuve, March 2003, Joint Econometrics and Statistics Seminar (P30).
- Rome, March 2003, Ente per gli Studi Monetari bancari et Finanziari Luigi Einaudi (P25).
- Marseille, January 2003, Statistics and Econometrics Seminar (GREQAM) (P30).
- Toulouse, January 2003, Econometrics day on "Labour Market and Finance" (P30).
- Bologna, December 2002, EC² meeting (European Conference Series in Quantitative Economics and Econometrics): Model Selection and Evaluation.
- KU Leuven, October 2002, Department of Economics, Econometrics Workshop (P25).
- Venice, August 2002, ESEM (P25).
- *Tokyo, January 2002, The Institute of Statistical Mathematics, 3rd International Symposium on Frontiers of Time Series Modelling (P35).
- *Munich, October 2001, SFB 386 Workshop "Recent Developments and Applications in the Statistical Analysis of Discrete Data Structures (P35).
- Lausanne, August 2001, ESEM (P35).
- Bristol, July 2001, ESRC Econometric Study Group annual conference (P23).
- *Konstanz, October 2000, Conference on Intertemporal Finance (P23).
- Seattle, August 2000, 8th World Congress of the Econometric Society (P23).
- Konstanz, July 2000, Center of Financial Economics (P22).
- Stockholm, May 2000, Stockholm School of Economics (P23).
- Madrid, December 1999, EC² meeting (European Conference Series in Quantitative Economics and Econometrics): Financial Econometrics (P20 and P22).
- Brussels, November 1999, Rencontre Franco-Belge de Statisticiens (P22).
- Rotterdam, June 1999, Conference on Inference and Decision-making (P20)
- Madrid, June 1999, University Carlos III, research seminar (P22), and conference at Institute Flores de Lemus (O4).
- London, May 1999, Brunel University, (P22).
- Frankfort, February 1999, J.W. Goethe University (P20)
- Berlin, August 1998, ESEM (session chairman).
- Paris, Symposium on Microstructure and High Frequency Data, December 1998 (P20), and invited discussant
- *Bilbao, Workshop in Time-Series and Econometrics, June 1998 (P20 and P18).

- London, May 1998, Brunel University, (P18).
- Maastricht, March 1998 (P18).
- Toulouse, March 1998, GREMAQ (P18).
- Paris, January 1998, CREST Statistics Seminar (P18).
- Toulouse, August 1997, (ESEM) (session chairman).
- *Krakow, May 1997, Krakow Workshop in Bayesian Econometrics and Statistics, (P15) and (P16).
- Louvain-La-Neuve, March 1997, Econometrics Seminar, CORE (P19).
- Istanbul, August 1996, ESEM (P15).
- Berlin, April 1996, Humboldt University (P16).
- Rotterdam, February 1996, Tinbergen Institute (P16).
- Aarhus, December 1995, EC² meeting: Non-linear time-series models (W3).
- Toronto, November 1995, Econometrics Workshop (P16).
- Princeton, October 1995, Econometrics Workshop (W3).
- Antwerp, March 1995, UFSIA Doctoral Seminar (P17).
- Marseille, June 1994, GREQE Seminar (P17).
- Louvain-La-Neuve, February 1994, Econometrics Seminar, CORE (C4).
- Oxford, December 1993, EC² Conference: Cointegration and Dynamics in Economics (C4).
- Uppsala, August 1993, ESEM (C4).
- Basel-Amsterdam, May 1993, First Riverboat Conference on Bayesian Econometrics and Statistics (C4).
- Marseille, April 1993, GREQE Seminar (C4).
- Amsterdam, March 1993, Econometrics Seminar (C4).
- *Marseille, September 1992, Conference for the ten years of GREQE: "Economics, the next ten years" (C5).
- Brussels, August 1992, ESEM, (C3) and (P14).
- Louvain-La-Neuve, November 1991, Rencontre Franco-Belge de Statisticiens (C3).
- Tilburg, September 1990, Econometrics Seminar, CentER (P11).
- Barcelone, September 1990, 6th World Congress of the Econometric Society (P11).
- Marseille, May 1990, GREQE Econometrics Workshop (P13).
- Rotterdam, May 1990, Seminar of the Econometric Institute (P13).
- Montréal, March 1990, Econometrics Seminar, CRDE (P13).
- Paris, February 1990, Franco-British Colloquium "Recent Developments in Econometrics" (W2).
- Paris, June 1989, International Conference on Heterogeneity in Econometrics, INSEE (P11).
- Marseille, June 1989, GREQE Econometrics Workshop (P11).
- Paris, November 1988, Malinvaud Seminar, INSEE (P8)
- Louvain-La-Neuve, October 1988, Econometrics Seminar, CORE (C2).
- Tilburg, September 1988, Econometrics Seminar, CentER (P8)
- Bologna, September 1988, ESEM (P8)
- Oxford, August 1988, International Seminar on International Trade, organized by the NBER and the CEPR (invited discussant).
- Vienna, March 1988, Congress of the Confederation of European Economic Associations (invited discussant).
- Toulouse, February 1988, Seminar of GREMAQ (P8)
- Toledo, December 1987, ASSET Conference (P8)
- Marseille, December 1987, GREQE Seminar (P8)
- Rotterdam, November 1987, Seminar of the Econometric Institute (P8)
- Louvain-La-Neuve, February 1987, Econometrics Seminar, CORE (P8)
- Charleroi, January 1987, Septième Congrès des Economistes Belges de Langue Française: rapporteur de la commission "Dépenses Publiques et Niveaux de Vie".
- Rouen, November 1986, Rencontre Franco-Belge de Statisticiens (P8).

- Marseille, June 1986, GREQE Seminar.
- London, November 1985, Computer Workshop of the Royal College of Physicians (P5).
- Namur, June 1985, Conference on International Trade and Exchange Rates in the Late Eighties (C1).
- Bruxelles, April 1985, Seminar of CEME (P9).
- Versailles, January 1985, European Winter Meeting of the Econometric Society (by invitation only) (P3).
- Warwick, November 1984, Seminar of the Department of Economics (P6).
- Louvain-La-Neuve, November 1984, Econometrics Seminar, CORE (P6).
- Rotterdam, February 1983, Seminar of the Econometrics Institute (P3).
- Louvain-La-Neuve, December 1982, Econometrics Seminar, CORE (P3).
- Dublin, September 1982, ESEM (P3).
- Paris, May 1982, ENSAE (P3).
- Louvain-La-Neuve, September 1979, Econometrics Seminar, CORE (P2).
- Louvain-La-Neuve, October 1977, Econometrics Seminar, CORE (survey of Monte Carlo integration).