Jeroen ROMBOUTS

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Department: Information Systems, Data Analytics and Operations
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RESEARCH INTERESTS

Econometrics, Statistics, Finance

EDUCATION

2004	Ph.D. in Econometrics, Université Catholique de Louvain, Belgium
2001	Master in Statistics, Université Catholique de Louvain, Belgium
2000	Master in Econometrics, Université Catholique de Louvain, Belgium
1999	Master in Economics, Katholieke Universiteit Leuven, Belgium

EMPLOYMENT

Full-time academic positions

2014 - Present	Professor, ESSEC Business School, France
2013 - 2014	Associate Professor, ESSEC Business School, France
2009 - 2012	Associate Professor, HEC Montréal, Canada
2004 - 2009	Assistant Professor, HEC Montréal, Canada

Other affiliations and appointments

2017 - 2024	Chaired professor of the Chair Accenture Strategic Business Analytics, ESSEC Business School, France
2017 - 2020	Head of the Informations systems, Decision Sciences and Statistics Department, ESSEC Business School, France
2015 - 2019	Visiting Professor, Katholieke Universiteit Leuven, Belgium
2015 - 2015	Visiting Professor, University of Melbourne, Australia
2014 - 2014	Visiting Professor, CORE, Belgium
2014 - 2014	Visiting Professor, CREATES, Aarhus University, Denmark
2014 - Present	Researcher at the Finance and Insurance Lab, Center for Research in Economics and Statistics (CREST), France
2010 - 2011	Visiting Professor, CORE, Belgium

2010 - 2010	Visiting Professor, CREATES, Aarhus University, Denmark
2010 - 2010	Visiting Professor, University of Melbourne, Australia
2006 - 2006	Visiting Professor, Pittsburgh University, United States of America
2005 - 2005	Visiting Professor, University of California, San Diego, United States of America
2003 - 2003	Visiting Professor, Erasmus University Rotterdam, Netherlands
2003 - 2003	Visiting Professor, Tilburg University, School of Economics and Management, Netherlands
2000 - 2004	Teaching Assistant, Economics Department, Université Catholique de Louvain, Belgium
1999 - 2000	Teaching Assistant, Institute of Statistics, Université Catholique de Louvain, Belgium

PUBLICATIONS

Journal Articles

ROMBOUTS, J., TERNES, M. and WILMS, I. (2024). Cross-temporal forecast reconciliation at digital platforms with machine learning. *International Journal of Forecasting*, In press.

HU, Y.J., ROMBOUTS, J. and WILMS, I. (2024). Fast Forecasting of Unstable Data Streams for On-Demand Service Platforms. *Information Systems Research*, In press, pp. 1-20.

DUFAYS, A., JACOBS, K., LIU, Y. and ROMBOUTS, J. (2023). Fast Filtering with Large Option Panels: Implications for Asset Pricing. *Journal of Financial and Quantitative Analysis*, In press, pp. 1-56.

WILMS, I., ROMBOUTS, J. and CROUX, C. (2021). Multivariate volatility forecasts for stock market indices. *International Journal of Forecasting*, 37(2), pp. 484-499.

DUFAYS, A., LI, Z., ROMBOUTS, J. and SONG, Y. (2021). Sparse changepoint VAR models. *Journal of Applied Econometrics*, 36(6), pp. 703-727.

ROMBOUTS, J., VIOLANTE, F. and STENTOFT, L. (2020). Dynamics of variance risk premia: A new model for disentangling the price of risk. *Journal of Econometrics*, 217(2), pp. 312-334.

DUFAYS, A. and ROMBOUTS, J. (2020). Relevant parameter changes in structural break models. *Journal of Econometrics*, 217(1), pp. 46-78.

ROMBOUTS, J., VIOLANTE, F. and STENTOFT, L. (2020). Pricing Individual Stock Options Using both Stock and Market Index Information. *Journal of Banking & Finance*, 111.

ROMBOUTS, J., STENTOFT, L. and VIOLANTE, F. (2020). Variance swap payoffs, risk premia and extreme market conditions. *Econometrics and Statistics*, 13, pp. 106-124.

DUFAYS, A. and ROMBOUTS, J. (2019). Sparse Change-point HAR Models for Realized Variance. *Econometric Reviews*, 38.

DELAIGLE, A., MEISTER, A. and ROMBOUTS, J. (2016). Root-T Consistent Density Estimation in GARCH Models. *Journal of Econometrics*, 192(1), pp. 55-63.

ROMBOUTS, J. and STANTOFT, L. (2015). Option Pricing with Asymmetric Heteroskedastic Normal Mixture Models. *International Journal of Forecasting*, 31(3), pp. 635-650.

BAUWENS, L., KOOP, G., KOROBILIS, D. and ROMBOUTS, J. (2015). The Contribution of Structural Break Models to Forecasting Macroeconomic Series. *Journal of Applied Econometrics*, 30(4), pp. 596-620.

ROMBOUTS, J. and STENTOFT, L. (2014). Bayesian Option Pricing Using Mixed Normal Heteroskedasticity Models. *Computational Statistics and Data Analysis*, 76, pp. 588-605.

BAUWENS, L., DUFAYS, A. and ROMBOUTS, J. (2014). Marginal Likelihood for Markov-switching and Change-Point GARCH Models. *Journal of Econometrics*, 178(3), pp. 508-522.

ROMBOUTS, J., STENTOFT, L. and VIOLANTE, F. (2014). The Value of Multivariate Model Sophistication: An Application to Pricing Dow Jones Industrial Average Options. *International Journal of Forecasting*, 30(1), pp. 78-98.

LAURENT, G., ROMBOUTS, J. and VIOLANTE, F. (2013). On Loss Functions and Ranking Forecasting Performances of Multivariate Volatility Models. *Journal of Econometrics*, 173(1), pp. 1-10.

BOUEZMARNI, T., ROMBOUTS, J. and TAAMOUTI, A. (2012). Nonparametric Copula-Based Test for Conditional Independence with Applications to Granger Causality. *Journal of Business and Economic Statistics*, 30(2), pp. 275-287.

BAUWENS, L. and ROMBOUTS, J. (2012). On Marginal Likelihood Computation in Change-Point Models. *Computational Statistics and Data Analysis*, 56(11), pp. 3415-3429.

LAURENT, S., ROMBOUTS, J. and VIOLANTE, F. (2012). On the forecasting accuracy of multivariate GARCH models. *Journal of Applied Econometrics*, 27(6), pp. 934-955.

ROMBOUTS, J. and STENTOFT, L. (2011). Multivariate Option Pricing with Time Varying Volatility and Correlations. *Journal of Banking & Finance*, 35(9), pp. 2267-2281.

BOUEZMARNI, T., ROMBOUTS, J. and TAAMOUTI, A. (2010). Asymptotic properties of the Bernstein density copula estimator for α-mixing data. *Journal of Multivariate Analysis*, 101(1), pp. 1-10.

BOUEZMARNI, T. and ROMBOUTS, J. (2010). Nonparametric Density Estimation for Multivariate Bounded Data. *Journal of Statistical Planning and Inference*, 140(1), pp. 139-152.

BOUEZMARNI, T. and ROMBOUTS, J. (2010). Nonparametric Density Estimation for Positive Time Series. *Computational Statistics and Data Analysis*, 54(2), pp. 245-261.

BAUWENS, L., PREMINGER, A. and ROMBOUTS, J. (2010). Theory and Inference for a Markov Switching GARCH Model. *Econometrics Journal*, 13(2), pp. 218-244.

VERBEEK, M. and ROMBOUTS, J. (2009). Evaluating portfolio Value-at-Risk using semi-parametric GARCH models. *Quantitative Finance*, 9(6), pp. 737-745.

BOUADDI, M. and ROMBOUTS, J. (2009). Mixed Exponential Power Asymmetric Conditional Heteroskedasticity. *Studies in Nonlinear Dynamics and Econometrics*, 13(3), pp. 1-30.

BOUEZMARNI, T. and ROMBOUTS, J. (2009). Semiparametric Multivariate Density Estimation for Positive Data Using Copulas. *Computational Statistics and Data Analysis*, 53(6), pp. 2040-2054.

BOUEZMARNI, T. and ROMBOUTS, J. (2008). Density and hazard rate estimation for censored and α-mixing data using gamma kernels. *Journal of Nonparametric Statistics*, 20(7), pp. 627-643.

BAUWENS, L. and ROMBOUTS, J. (2007). Bayesian Clustering of Many GARCH Models. *Econometric Reviews*, 26(2), pp. 365-386.

BAUWENS, L. and ROMBOUTS, J. (2007). Bayesian Inference for the Mixed Conditional Heteroskedasticity Model. *Econometrics Journal*, 10(2), pp. 408-425.

HAFNER, C. and ROMBOUTS, J. (2007). Estimation of Temporally Aggregated Multivariate GARCH Models. *Journal of Statistical Computation and Simulation*, 77(8), pp. 629-650.

BAUWENS, L., HAFNER, C. and ROMBOUTS, J. (2007). Multivariate mixed normal conditional heteroskedasticity. *Computational Statistics and Data Analysis*, 51(7), pp. 3551-3566.

HAFNER, C. and ROMBOUTS, J. (2007). Semiparametric Multivariate Volatility Models. *Econometric Theory*, 23(2), pp. 251-280.

LAURENT, S., BAUWENS, L. and ROMBOUTS, J. (2006). Multivariate GARCH Models: A Survey. *Journal of Applied Econometrics*, 21(1), pp. 79-109.

MOUCHART, M. and ROMBOUTS, J. (2005). Clustered Panel data models: An Efficient Approach for Nowcasting from Poor Data. *International Journal of Forecasting*, 21, pp. 577-594.

Book chapters

BAUWENS, L. and ROMBOUTS, J. (2004). Econometrics. In: *Handbook of Computational Statistics*. 1st ed. Springer, pp. 951-980.

Guest editor of a journal special issue

ROMBOUTS, J., SCAILLET, O., VEREDAS, D. and ZAKOIAN, J.M. (2020). Nonlinear financial econometrics JoE special issue introduction. *Journal of Econometrics*, 27(2).

Conferences

ROMBOUTS, J. and WILMS, I. (2024). Monitoring Machine Learning Forecasts for Platform Data Streams. In: 6th Institute for Mathematical Statistics – Asia-Pacific Rim Meeting (IMS-APRM 2024). Melbourne.

ROMBOUTS, J. (2024). Modeling Higher Moments and Risk Premiums for S&P 500 Returns. In: 2024 Quantitative Finance and Financial Econometrics. Marseille.

ROMBOUTS, J., HU, Y.J. and WILMS, I. (2022). Fast Forecasting of Unstable Data Streams for Digital Platforms. In: 2022 Workshop on Information Technologies and Systems. Copenhagen.

DUFAYS, A., JACOBS, D. and ROMBOUTS, J. (2022). Factor Dynamics, Risk Premia, and Higher Moments in Multi-Factor Option Pricing Models. In: 2022 International Conference on Computational and Financial Econometrics. London.

ROMBOUTS, J., CROUX, C. and WILMS, I. (2019). Multivariate lasso-based Forecast Combinations for stock market Volatility. In: 2019 3rd International Conference on Econometrics and Statistics.

ROMBOUTS, J. (2018). Relevant Parameter Changes in Structural Break Models. In: 2018 Econometric Theory and Time Series Analysis (ETTSA) Workshop.

ROMBOUTS, J. (2013). Fast Density Estimation in Graph Models. In: CIREQ Econometrics Conference: Time Series and Financial Econometrics.

ROMBOUTS, J. and STENTOFT, L. (2013). Mixtures Models, Jumps and Option Pricing. In: 33rd International Symposium on Forecasting.

ROMBOUTS, J. (2013). The Value of Multivariate Model Sophistication: An Application to Pricing Dow Jones Industrial Average Options. In: 30th International Conference of the French Finance Association.

Press

KÜBLER, R. and ROMBOUTS, J. (2023). Tuning In - What AI and User Generated Content Can Tell Us About Consumers. *ESSEC Knowledge*.

HUBER, T. and ROMBOUTS, J. (2023). AI as Perceived by ESSEC Students: A Response to Contemporary Issues. *ESSEC Knowledge*.

ROMBOUTS, J. and AMICHIA, R. (2021). Why Are AI Use Cases Not Going Live? MLOPS Bring an Answer. *ESSEC Knowledge*.

ROMBOUTS, J. (2021). The Experience Game-Changer. *ESSEC Knowledge*.

OTHER RESEARCH ACTIVITIES

Associate Editor

Since 2023	Quantitative Finance
2018	Journal of Business and Economic Statistics
2014	Computational Statistics and Data Analysis

Editorial Board Membership

Since 2023	Journal of Financial Econometrics
2017 - 2018	Journal of Business and Economic Statistics
Since 2017	Econometrics and Statistics
2014	Computational Statistics and Data Analysis
Since 2013	International Journal of Forecasting

Ad-hoc reviewer for :

Annals of Applied Statistics, Communications in Statistics: Theory and Methods, Comptes rendus Mathématique, Computational Statistics and Data Analysis, Econometric Reviews, Econometric Theory, Econometrics Journal, International Journal of Forecasting, Journal of Applied Econometrics, Journal of Applied Statistics, Journal of Business and Economic Statistics, Journal of Econometrics, Journal of Empirical Finance, Journal of Financial Econometrics, Journal of International Money and Finance, Journal of Multivariate Analysis, Journal of Nonparametric Statistics, Journal of Risk, Quantitative Finance, Studies in Nonlinear Dynamics and Econometrics

Other research activities

Since 1975	Reviewer for Journal of the Royal Statistical Society (Series B)