

PROF.DR. STEPHAN SMEEKES

Professor of Econometrics
Maastricht University
School of Business and Economics
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LAST UPDATE: December 15, 2025

PROFESSIONAL EXPERIENCE

- | | |
|--------------|---|
| 2024–present | Professor of Econometrics
Department of Quantitative Economics, Maastricht University |
| 2015–2024 | Associate Professor
Department of Quantitative Economics, Maastricht University |
| 2012–2015 | Assistant Professor
Department of Quantitative Economics, Maastricht University |
| 2009–2012 | Postdoctoral Researcher
Department of Quantitative Economics, Maastricht University |

EDUCATION

- | | |
|-----------|--|
| 2004–2009 | Ph.D. in Economics, Maastricht University
<i>Thesis title:</i> Bootstrapping Nonstationary Time Series
<i>Supervisors:</i> Prof.dr. Jean-Pierre Urbain and Prof.dr. Franz C. Palm
Ph.D. thesis has been awarded the <i>Christiaan Huygens Science Award</i> 2012 |
| 2000–2004 | BSc & MSc in Econometrics and Operations Research, Maastricht University
Graduated with distinction (<i>cum laude</i>). |

RESEARCH INTERESTS

Bootstrap and Resampling Methods, Time Series Econometrics, High-Dimensional Statistics, Climate Econometrics, Macro-Econometrics, Panel Data, Nonparametric Statistics, Official Statistics.

JOURNAL ARTICLES

- Schiavoni, C., S. J. Koopman, F. C. Palm, S. Smeekees and J. van den Brakel (2025). [Time-varying correlations in multivariate unobserved components time series models](#). *Journal of the Royal Statistical Society - Series A*, forthcoming.
- Lieb, L., A. Jassem, R. J. Almeida, N. Bastürk and S. Smeekees (2025). [Min\(d\)ing the President: A text analytic approach to measuring tax news](#). *American Economic Journal: Macroeconomics* 17 (2), 285–314.
- Adamek, R., S. Smeekees and I. Wilms (2024). [Local projection inference in high dimensions](#). *Econometrics Journal* 27 (3), 323–342.
- Beutner, E., A. Heinemann and S. Smeekees (2024). [A residual bootstrap for conditional Value-at-Risk](#). *Journal of Econometrics* 238 (2), 105554.
- Smeekees, S. and I. Wilms (2023). [bootUR: An R Package for Bootstrap Unit Root Tests](#). *Journal of Statistical Software* 106 (12), 1–39.
- Adamek, R., S. Smeekees and I. Wilms (2023). [Lasso inference for high-dimensional time series](#). *Journal of Econometrics* 235 (2), 1114–1143.
- Beutner, E., Y. Lin, and S. Smeekees (2023). [GLS estimation and confidence sets for the date of a single break in models with trends](#). *Econometric Reviews* 42 (2), 195–219.

- Hecq, A., L. Margaritella and S. Smeekees (2023). [Granger causality testing in high-dimensional VARs: a post-double-selection procedure](#). *Journal of Financial Econometrics* 21 (3), 915–958.
- Beutner, E., A. Heinemann and S. Smeekees (2021). [A justification of conditional confidence intervals](#). *Electronic Journal of Statistics* 15 (1), 2517–2565.
- Smeekees, S. and E. Wijler (2021). [An automated approach towards sparse single-equation cointegration modelling](#). *Journal of Econometrics* 221 (1), 247–276.
- Schiavoni, C., F. C. Palm, S. Smeekees and J. van den Brakel (2021). [A dynamic factor model approach to incorporate Big Data in state space models for official statistics](#). *Journal of the Royal Statistical Society - Series A* 184 (1), 324–353.
- Friedrich, M., E. Beutner, H. Reuvers, S. Smeekees, J.-P. Urbain, W. Bader, B. Franco, B. Lejeune and E. Mahieu (2020). [A statistical analysis of time trends in atmospheric ethane](#). *Climatic Change*, 162 (1), 105–125.
- Friedrich, M., S. Smeekees and J.-P. Urbain (2020). [Autoregressive wild bootstrap inference for nonparametric trends](#). *Journal of Econometrics*, 214 (1), 81–109.
- S. Smeekees and J. Westerlund (2019). [Robust block bootstrap panel predictability tests](#). *Econometric Reviews* 38 (9), 1089–1107.
- Smeekees, S. and E. Wijler (2018). [Macroeconomic forecasting using penalized regression methods](#). *International Journal of Forecasting* 34 (3), 408–430.
- Hurlin, C., S. Laurent, R. Quaadvlieg and S. Smeekees (2017). [Risk measure inference](#). *Journal of Business and Economic Statistics* 35 (4), 499–512.
- Götz, T. B., A. Hecq and S. Smeekees (2016). [Testing for Granger causality in large mixed-frequency VARs](#). *Journal of Econometrics* 193 (2), 418–432.
- Smeekees, S. (2015). [Bootstrap sequential tests to determine the order of integration of individual units in a time series panel](#). *Journal of Time Series Analysis* 36 (3), 398–415.
- Cavaliere, G., P. C. B. Phillips, S. Smeekees and A. M. R. Taylor (2015). [Lag length selection for unit root tests in the presence of nonstationary volatility](#). *Econometric Reviews* 34 (4), 512–536.
- Smeekees, S. and J.-P. Urbain (2014). [On the applicability of the sieve bootstrap in time series panels](#). *Oxford Bulletin of Economics and Statistics* 76 (1), 139–151.
- Smeekees, S. (2013). [Detrending bootstrap unit root tests](#). *Econometric Reviews* 32 (8), 869–891.
- Smeekees, S. and A. M. R. Taylor (2012). [Bootstrap union tests for unit roots in the presence of nonstationary volatility](#). *Econometric Theory* 28 (2), 422–456.
- Palm, F. C., S. Smeekees and J.-P. Urbain (2011). [Cross-sectional dependence robust block bootstrap panel unit root tests](#). *Journal of Econometrics* 163 (1), 85–104.
- Palm, F. C., S. Smeekees and J.-P. Urbain (2010). [A sieve bootstrap test for cointegration in a conditional error correction model](#). *Econometric Theory* 26 (3), 647–681.
- Palm, F. C., S. Smeekees and J.-P. Urbain (2008). [Bootstrap unit root tests: Comparison and extensions](#). *Journal of Time Series Analysis* 29 (2), 371–401.

BOOK CHAPTERS

- Smeekees, S. and E. Wijler (2020). [Unit Roots and Cointegration](#). In P. Fuleky (Ed.), *Macroeconomic Forecasting in the Era of Big Data*, Chapter 17 pp. 541–584. Advanced Studies in Theoretical and Applied Econometrics, vol. 52. Springer.

WORKING PAPERS

- Sadhukhan, T., I. Wilms, S. Smeekees and S. Basu (2025). [Autotune: fast, accurate, and automatic tuning parameter selection for LASSO](#). arXiv e-print 2512.11139.

- Haimerl, P., S. Smeekes and I. Wilms, Ines (2025). [Estimation of Latent Group Structures in Time-Varying Panel Data Models](#). arXiv e-print 2503.23165.
- Wegner, E., L. Lieb, S. Smeekes and I. Wilms, Ines (2024). [Transmission channel analysis in dynamic models](#). arXiv e-print 2405.18987.
- Friedrich, M., L. Margaritella and S. Smeekes (2023). [High-dimensional causality for climatic attribution](#). arXiv e-print 2302.03996.
- Hecq, A., L. Margaritella and S. Smeekes (2023). [Inference in non-stationary high-dimensional VARs](#). arXiv e-print 2302.01434.
- Adamek, R., S. Smeekes and I. Wilms (2023). [Sparse high-dimensional vector autoregressive bootstrap](#). arXiv e-print 2302.01233.
- Lieb, L. and S. Smeekes (2019). [Inference for impulse responses under model uncertainty](#). arXiv e-print 1709.09583.
- Beutner, E., A. Heinemann and S. Smeekes (2019). [A general framework for prediction in time series models](#). arXiv e-print 1902.01622.
- Smeekes, S. and J.-P. Urbain (2014). [A multivariate invariance principle for modified wild bootstrap methods with an application to unit root testing](#). GSBE Research Memorandum RM/14/008, Maastricht University.

SOFTWARE

- bootUR**: R package for bootstrap unit root tests, with I. Wilms. Available on [CRAN](#) and [GitHub](#).
- specs**: R package corresponding to the paper Smeekes and Wijler (2021, *JoE*), maintained by E. Wijler. Available on [CRAN](#) and [GitHub](#).
- desla**: R package for desparsified lasso in time series, maintained by R. Adamek. Available on [CRAN](#) and [GitHub](#).
- HDGCvar**: R package for Granger causality testing in high-dimensional vector autoregressive models, maintained by L. Margaritella. Available on [GitHub](#).
- PAGFL**: R package for estimating latent group structures in panel data, maintained by P. Haimerl. Available on [CRAN](#) and [GitHub](#).
- Autotune**: R package for fast, accurate, and automatic tuning parameter selection for LASSO, maintained by T. Sadhukhan. Available on [GitHub](#).
- TransmissionChannelAnalysis.jl**: Julia and Matlab toolbox for estimating dynamic transmission channels, maintained by E. Wegner. Available via <https://enweg.github.io/tca-website>.
- Various codes for R, Julia, Python, Gauss and Matlab accessible via stephansmeekes.com.

GRANTS, HONORS AND AWARDS

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| 2019–2024 | Elected as member of <i>De Jonge Akademie</i> (Dutch Young Academy). |
| 2017 | Maastricht University, School of Business and Economics <i>Excellent Undergraduate Educator</i> Award. |
| 2017–2022 | Netherlands Organization for Scientific Research (NWO) MaGW Vidi grant for project <i>Inference for High-Dimensional Econometric Time Series</i> . |
| 2015 | Among 4 nominees for <i>Pierson Medaille 2015</i> (awarded by the KVS to a young promising researcher in economics or finance employed at a Dutch university who defended after 2007). |
| 2015–2019 | Netherlands Organization for Scientific Research (NWO) MaGW Research Talent grant for Ph.D. project <i>Bootstrap Inference for Risk Measures</i> , with E. Beutner, F. C. Palm and A. Heinemann. |

2012	Maastricht University, School of Business and Economics <i>Excellent Young Scholar Award</i> .
2012	<i>Christiaan Huygens wetenschapsprijs</i> (awarded to best PhD thesis in econometrics / actuarial sciences defended at a Dutch university between 2008 and 2012).
2013–2016	Netherlands Organization for Scientific Research (NWO) MaGW Veni grant for project <i>Bootstrap Methods for Time-Varying Processes</i> .
2011	Nominated with honorable mention (among top 4) for <i>KVS Penning 2011</i> (awarded to best PhD thesis in economics defended at a Dutch university between 2008 and 2011).
2011–present	GSBE Research Fellow, Maastricht University.
2010–2013	Netherlands Organization for Scientific Research (NWO) Open Competition MaGW grant for post-doc project <i>Bootstrap Method for Nonstationary Time Series and Panel Data</i> , with J.-P. Urbain and F. C. Palm.
2006–2009	Netherlands Organization for Scientific Research (NWO) Open Competition MaGW grant for Ph.D. project <i>Bootstrapping Nonstationary Time Series</i> , with J.-P. Urbain and F. C. Palm.

PHD SUPERVISION

2025–2029	Paul Doekhie, <i>Machine learning for econometric modelling of latent variables</i> . (Promotor)
2025–2029	Ties Bos, <i>Where Econometrics Meets Medicine: An Interdisciplinary Data-Driven Approach to Clinical Decision-Making</i> . (Promotor, joint with MUMC)
2023–2027	Marie Corillon, <i>Aggregation Schemes for High-Dimensional Time Series</i> . (Promotor)
2023–2027	Enrico Wegner, <i>Causality in non-linear macro-econometrics</i> . (Promotor)
2018–2022	Adam Jassem, <i>Enrichment of economic and marketing models with unstructured text data</i> . (Promotor, funded by D3M Research Theme)
Defense: Dec 5, 2022	Robert Adamek, <i>Lasso-Based Inference for High-Dimensional Time Series</i> . (Promotor, funded by NWO Vidi grant)
Defense: Nov 8, 2021	Luca Margaritella, <i>Inference in High-Dimensional Time Series Models</i> . (Promotor, funded by NWO Vidi grant)
Defense: Nov 4, 2021	Caterina Schiavoni, <i>Multivariate State Space Methods for Official Statistics and Climate Modelling</i> . (Co-promotor, funded by Statistics Netherlands)
Defense: Oct 6, 2021	Yicong Lin, <i>Essays on Nonstationary Nonlinear Models</i> . (Promotor)
Defense: Jan 14, 2021	Etienne Wijler, <i>High-dimensional time series analysis: unit roots, cointegration and forecasting</i> . (Promotor)
Defense: Dec 10, 2020	Marina Friedrich, <i>Bootstrap inference for environmental trends</i> . (Co-promotor)
Defense: Jun 20, 2019	Alexander Heinemann, <i>Bootstrap Inference for Risk Measures</i> . (Co-promotor, funded by NWO Research Talent grant)
Defense: May 14, 2018	Hanno Reuvers, <i>Vector Autoregressions: Lag Order Uncertainty and Least Absolute Deviations</i> . (Co-promotor)

PHD ASSESSMENT COMMITTEES

Dec 04, 2025	Sofia Borodich Suarez, <i>Essays in Econometrics: Nonlinear Panel Data, Time Series and Clustering</i> . (Chair)
Dec 02, 2025	Yicheng Mao, <i>Bayesian Optimal Choice Designs Using Simulated Annealing</i> . (Chair)
Nov 13, 2024	Marie Ternes, <i>Forecasting Mixed-Frequency Time Series with Statistical Learning</i> . (Chair)

Nov 11, 2024	Dewi Peerlings, <i>Density Estimation by Neural Networks with Applications to non-Gaussian Distributions in Time Series Analysis</i> . (Chair)
Dec 20, 2022	Elisa Voisin, <i>Modelling and Forecasting Economic Time Series with Mixed Causal-Noncausal Models</i> .
Oct 21, 2019	Rasmus Lönn, <i>High-dimensional asset pricing and portfolio optimization</i> .
Jun 21, 2018	Dominik Blatt, <i>Advancements in Structural Break Testing</i> .
Dec 06, 2017	Sean Telg, <i>Mixed Causal-Noncausal Models; Identification, Estimation and Inference</i> .
Mar 22, 2017	Artem Duplinskiy, <i>Persistency in Dynamic Econometric Models</i> .
May 12, 2016	Lennart Freitag, <i>Credit Rating Agencies and the European Sovereign Debt Crisis</i> .
May 11, 2016	Oksana Balabay, <i>Time Series Modelling in Repeatedly Conducted Sample Surveys</i> .
Feb 05, 2016	Dennis Türk, <i>Electrified – Essays on Trading and Risk Management in Electricity Markets</i> .
Jan 21, 2015	Hande Karabiyik, <i>Estimation and Inference in Cross-Sectionally Dependent Panel Data Models</i> .
Sep 10, 2014	Thomas Götz, <i>Modeling Non-stationary and Stationary Mixed Frequency Time Series</i> .

TEACHING

2010	Awarded Dutch teaching qualification BKO.
2010–present	Supervised approx. 60 MSc theses and 50 BSc theses as first (co-)supervisor.
2016–present	Big Data Econometrics MSc Econometrics and Operations Research / MSc Economic and Financial Research <i>Course Designer, Coordinator and Lecturer</i>
2023–present	Computational Research Skills MSc Econometrics and Operations Research / MSc Economic and Financial Research <i>Course Designer, Coordinator and Lecturer</i>
2010–present	Mathematical Statistics BSc Econometrics and Operations Research <i>Course Coordinator and Lecturer</i>
2024–present	Quantitative Methods 3 BSc Economics and Business Economics <i>Joint Coordinator and Lecturer</i>
2017–present	Writing a Referee Report MSc Economic and Financial Research <i>Course Coordinator</i>
2022–2023	Empirical Analysis I MSc Business Research <i>Joint Coordinator and Lecturer</i>
2006–2022	Topics in Computational Econometrics <i>Course Coordinator and Lecturer</i>
2016	Time Series Methods and Dynamic Econometrics MSc Econometrics and Operations Research / MSc Economic and Financial Research <i>Joint Coordinator and Lecturer</i>
2005–2009	Macroeconomics BSc Econometrics and Operations Research <i>Teaching Assistant / Tutor</i>
2007–2009	Finance BSc Econometrics and Operations Research <i>Teaching Assistant / Tutor</i>

2004–2005 **Quantitative Methods I**
 BSc International Business
Teaching Assistant / Tutor

MANAGEMENT & COMMITTEES

Structural Positions

2025–present Member of Disability Inclusion Group, Maastricht University.
 2024–present Member of the Management Team, Department of Quantitative Economics.
 2020–present Programme Leader MSc Econometrics and Operations Research.
 2017–present Member of Board of Admission MSc Economic and Financial Research.
 2016–present Member of Board of Admission MSc Econometrics and Operations Research.
 2013–present Member of Programme Committee [Netherlands Econometric Study Group \(NESG\)](#) annual conference.
 2017–2020 Deputy Theme Leader of the GSBE Research Theme on [Data-Driven Decision Making \(D³M\)](#), Maastricht University.

Situational Activities

2025 Member of Assessment & Selection Committee, TDCC SSH Challenge Call 2025.
 2024–2025 Member of SBE Recognition & Rewards Committee, Maastricht University.
 2024 Member of the UM–MUMC+ ‘Moonshot’ collaboration think-tank, Maastricht.
 2024 Chair of Local Organizing Committee [Netherlands Econometric Study Group 2024 conference \(NESG 2024\)](#), Maastricht.
 2024 Member of Jury for the Christiaan Huygens Science Award.
 2023 Member of Scientific Committee [7th conference on Econometric Models of Climate Change \(EMCC-VII\)](#), Amsterdam.
 2022–2023 Member of Assessment Committee NWO SGW Vici Grants 2022, panel Social Sciences.
 2022 Chair of Local Organizing Committee [2nd Workshop on Dimensionality Reduction and Inference in High-Dimensional Time Series](#), Maastricht.
 2022 Chair of Local Organizing Committee [Workshop on Environmental Time Series Analysis](#), Maastricht.
 2021 Chair of Local Organizing Committee [Workshop on Dimensionality Reduction and Inference in High-Dimensional Time Series](#), Maastricht.
 2020–2021 Member of Jury for KNAW Descartes-Huygensprijs.
 2020–2021 Member of Jury for KNAW Onderwijsprijs (Education Award).
 2019–2020 Member of Assessment Committee NWO SGW Vidi Grants 2019, panel economics and business.
 2019 Invited as Member of Jury for Econometric Game, Amsterdam.
 2016–2019 Member of Steering Committee [Institute of Data Science](#), Maastricht University.
 2018 Member of Jury for Research Competition hosted by Institute of Data Science, Maastricht University.
 2017 Session Organizer at [11th International Conference on Computational and Financial Econometrics \(CFE 2017\)](#), London.

- 2017 Member of Local Organizing Committee [European Seminar on Bayesian Econometrics 2017 \(ESOB 2017\)](#), Maastricht.
- 2016 Chair of Local Organizing Committee *2nd Maastricht Workshop on Advances in Quantitative Economics*, Maastricht.
- 2015 Session Organizer at [9th International Conference on Computational and Financial Econometrics \(CFE 2015\)](#), London.
- 2015 Chair of Local Organizing Committee [Netherlands Econometric Study Group 2015 conference \(NESG 2015\)](#), Maastricht.
- 2012 Member of Programme Committee ([EC](#))2 Conference 2012, Maastricht.

CONFERENCE AND SEMINAR PRESENTATIONS

- 2025 Econometrics Seminar, University of Glasgow (*invited*); Workshop on Spatio-temporal Statistics in High Dimensions, TU Dortmund (*invited*).
- 2023 Virtual Time Series Seminar (*invited*); Econometrics and Business Statistics Seminar, Aarhus University (*invited*); FEM Seminar, Lund University (*invited*); 7th conference on Econometric Models of Climate Change (EMCC-VII), Amsterdam.
- 2022 Netherlands Econometric Study Group Annual Conference, Groningen (*invited*).
- 2021 Econometrics Seminar, University of Nottingham (*invited*); International Association for Applied Econometrics 2021 Conference; Economics Seminar, University of Duisburg-Essen (*invited*); Riccardo Faini CEIS Webinar, Center for Economic and International Studies, University of Rome Tor-Vergata (*invited*).
- 2020 31th (EC)2 Conference; Bernoulli-IMS World Symposium; Econometric Society World Congress.
- 2017 11th International Conference on Computational and Financial Econometrics (CFE 2017), London (*invited*).
- 2015 9th International Conference on Computational and Financial Econometrics (CFE 2015), London (*invited*); European Meeting of Statistics (EMS 2015), Amsterdam.
- 2014 8th International Conference on Computational and Financial Econometrics (CFE 2014), Pisa; CentER Econometrics and Statistics Seminar, Tilburg University (*invited*).
- 2013 Workshop on Bootstrap Methods for Time Series, Copenhagen, 2013 (*invited*); Netherlands Econometric Study Group Annual Conference, Amsterdam, 2013 (*invited*).
- 2012 (EC)2 Conference, Maastricht, 2012; 18th International Panel Data Conference, Paris, 2012.
- 2011 Tinbergen Econometrics Seminar, Amsterdam (*invited*); Statistische Woche, Leipzig (*invited*); 10th OxMetrics User Conference, Maastricht.
- 2010 16th International Conference on Panel Data, Amsterdam; Netherlands Econometric Study Group Annual Conference, Leuven; NAK Research Day, Utrecht.
- 2009 Econometric Society European Meeting, Barcelona; Joint CORE-STAT Econometrics seminar, Center of Operations Research and Econometrics (CORE), Université catholique de Louvain, Louvain-la-Neuve (*invited*).
- 2008 International Conference on Factor Structures for Panel and Multivariate Time Series Data, Maastricht; Econometric Society European Meeting, Milan; Workshop on Bootstrap and Time Series, Kaiserslautern; Inference and Tests in Econometrics - A Tribute to Russell Davidson, Marseille.
- 2007 First Meeting of the Methods in International Finance Network, Maastricht, 2007.
- 2005 Econometric Society World Congress, London.

REFeree ACTIVITY

Annals of Economics and Statistics, Communications in Statistics – Theory and Methods, Communications in Statistics – Simulation and Computation, Computational Statistics and Data Analysis, Econometrics, Econometrics and Statistics, Econometric Reviews, Econometric Theory, Economic Modeling,

Empirical Economics, Environmetrics, International Journal of Forecasting, Journal of Applied Econometrics, Journal of Business and Economic Statistics, Journal of Econometrics, Journal of Empirical Finance, Journal of Forecasting, Journal of Multivariate Analysis, Journal of Applied Statistics, Journal of Time Series Analysis, Macroeconomic Dynamics, Oxford Bulletin of Economics and Statistics, Scandinavian Journal of Statistics, Statistica Sinica, Statistical Methodology, Statistical Papers, Statistics, Statistics & Probability Letters, TEST.

EXTERNAL TEACHING & CONSULTANCY

2021	Joint course developer and teacher of BlueCourses online course Time Series Analysis and Forecasting .
2019	Joint course developer and teacher of internal staff training "Introduction to R".
2018	Joint course developer and teacher of module "Time Series" in BISS Certified Data Science executive education programme.
2015	Project Leader of <i>Forecasting Commodity Prices</i> in collaboration with OCI Fertilizers.

MEDIA APPEARANCES, OUTREACH AND PUBLIC LECTURES

2025	Inaugural lecture Time Will Tell: Econometric Intelligence to Unravel a Complex World
2023–	Annual contributions to the popular science website Beste ID .
2021	<i>Talking Business and Economics</i> video How to Make Sense of Complex Datasets .
2020	UMIO <i>Afternoon Tea & Talent</i> session (with Etienne Wijler): How Smart Is Your Algorithm? with accompanying article A Taste of Big Data Analysis: Sour Milk or Luxury Ice Cream?
2020	Dutch national TV show <i>Knappe Koppen</i> , talk about economic forecasting in the episode When will the next economic crisis take place? .
2019	Interview in university newspaper <i>Observant</i> : "Fight against nonsense statistics" .