

Université Paris-Dauphine – PSL University**Bureau P121**

LEDa – CGEMP

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<https://arthurthomaseconometrics.github.io>**EMPLOYMENT**

- 2024- **Visiting Professor**, *Department of Quantitative Economics at Maastricht University, School of Business and Economics, Netherland*
- 2022- **Assistant Professor (Maître de Conférences)**, *Université Paris-Dauphine, France*
- 2021- **Associated Researcher** in the Climate Economics Chair, *Université Paris-Dauphine, France.*
- 2017- **Associated Researcher** in the Chair of the Economics of Natural Gas, *Paris Dauphine-PSL University, IFP School, Mines Paris Tech-PSL University, and Toulouse School of Economics. The German Institute for Economic Research (DIW).*

EDUCATION

- 2017 - 2020 **PhD in economics**, Nantes University, France
Title: “The Econometrics of Energy Demand: Identification and Forecast”, under the supervision of Benoît Sévi (Nantes-University) and Olivier Massol (IFP School and City, University of London)
Committee: K. Abadir (Imperial College London, referee), D. Bunn (London Business School), D. Korobilis (University of Glasgow, referee), O. Massol (IFP School and City, University of London, supervisor), V. Mignon (Université Paris-Nanterre, chairman), B. Sévi (Nantes University, supervisor)
- 2014 - 2017 **M.Sc. in Statistics**, École Nationale de la Statistique et de l'Analyse de l'Information (ENSAI), France
- 2012 – 2014 **Preparatory classes (MP)**, Lycée Henry Poincaré (Nancy), France

PUBLICATIONS

Thomas A., Massol O., Sévi B. (2022), How are Day-ahead Prices Informative for Predicting the Next Day's Consumption of Natural Gas? Evidence from France, *The Energy Journal*, vol. 43, n°5

WORKING PAPERS

- Fries Sébastien, Arthur Thomas and Gilles De Truchis (2024). Forecasting extreme trajectories using semi-norm representations.
- Fries Sébastien, Arthur Thomas and Gilles De Truchis (2024). Multivariate α -stable moving averages, stable aggregates, and path prediction (2024)
- Gilles De Truchis, Elena Dumitrescu, Sébastien Fries and Arthur Thomas (2024). Bet on a bubble asset? An optimal portfolio allocation strategy. *Submitted*
- Zakaria Moussa, Arthur Thomas (2024). Identifying Oil Supply News Shocks and Their Effects on the Global Oil Market, USAEE Working Paper No. 21-490, Jun. 26, 2023. *Submitted*
- Paul Bardon, Olivier Massol, Arthur Thomas (2024). Greening aviation: What do we expect from Sustainable Aviation Fuels (SAF). *Submitted*

Zakaria Moussa, Benoît Sévi, Arthur Thomas (2021). Real-time demand in U.S. natural gas price forecasting: the role of temperature data, USAEE Working Paper No. 21-507, 21 Sep 2021.

ONGOING WORK

Elena Dumitrescu, Arthur Thomas (2024). Learning the predictive density of mixed-causal ARMA processes.

Yannick Le Pen, Zakaria Moussa, Arthur Thomas (2024). Regime Switching for Dynamic EquiCorrelation.

Marie Bruguët, Ronan Le Saout, Arthur Thomas (2024). Weather Effects in Energy Seasonal Adjustment : An Application to France Energy Consumption.

REFEREE REPORTS

20 reports since 2018 in the following journals: *Annals of Economics and Statistics*; *Empirical Economics*; *The Energy Journal*; *Energy Economics*; *Journal of Times Series Analysis*; *Journal of Banking and Finance*; *Nature Energy*; *Resource and Energy Economics*; *Revue Economique*; *Revue Française d'Economie*; *Revue Française d'Economie Politique*.

ACADEMICS RESPONSIBILITIES

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| 2023 - 2024 | Organizer of the LEDa seminar, Dauphine -PSL |
| 2023 | Member of the working group on causality, CEREMADE, LAMSADE, LEDa, Dauphine-PSL |
| 2023 | Organizer of the Journée portes ouvertes (JPO) du LEDa, Dauphine -PSL |
| 2023 | Organizers of the Annual Doctoral Conference of the Association for the Development of Research in Economics and Statistics (ADRES), Dauphine-PSL |
| 2023 | Organizer of a LEDa cross-disciplinary seminar on theoretical quantitative techniques (Econometrics seminar link), Dauphine-PSL |
| 2020 | Organizer of the 43rd IAEE International Conference, Paris, France. |
| 2020 | Organizers of the 37th International Conference of the French Finance Association (AFFI), Nantes, France. |
| 2018 - | Member of the "Les Jeunes Economètres" working group |

SELECTED CONFERENCES AND WORKSHOPS

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| 2024. | 4th Italian Workshop of Econometrics and Empirical Economics Maastricht Econometric Seminars <i>Department of Quantitative Economics at Maastricht University, School of Business and Economics, Netherland</i> Internal seminar LEDa, University Paris Dauphine-PSL, France 6th edition of QFFE 2024, AMSE, Marseille, France 44th International Symposium on Forecasting, Dijon France |
| 2023. | Workshop on noncausal models, Maastricht University, Netherland CREST Finance seminar, ENSAE, France |

17th International Conference on Computational and Financial Econometrics, HTW Berlin, University of Applied Science, Germany, invited session.

22ème Journée d'Économétrie – Développements Récents de l'Econométrie Appliquée à la Finance, Nanterre, France

2022. **FiME Summer School on “Big Data and Finance”**, University Paris Dauphine, CREST, Institut Louis-Bachelier, France

Internal seminar LEDa, University Paris Dauphine-PSL, France

Big Data and Econometrics seminar, AMSE, France

16th International Conference on Computational and Financial Econometrics, King's College London, UK

21ème Journée d'Économétrie – Développements Récents de l'Econométrie Appliquée à la Finance, Nanterre, France

Séminaire de recherche du LEO, Orléans, France

4th edition of QFFE 2022, AMSE, Marseille, France

Research seminar of the ACSS-PSL Institute

2021. **7th RCEA Times series workshop**, University of Milano-Bicocca.

PHD STUDENTS

2023 – **Marie Bruguet (PhD student at Dauphine, co-supervised with A. Creti) “Measuring and evaluating sufficiency and efficiency in French residential energy consumption”, COFRA funded by the French Ministry of Ecological Transition.**

SUPERVISED MASTER STUDENTS (SINCE 2022)

2023. Lux, Boudon (M2-QEA), research assistant funded by Dauphine -PSL Graduate Program, jointly with F. Tripier (Univ. Dauphine) and Z. Moussa (Univ. Nantes), *Noncausality, monetary shocks, prices, wages, and profits*.

Janna Bengouirah (M2-QEA), *Noncausal portfolio optimization*.

Eddy Darragi (M2-QEA), *estimating residential consumption elasticities prices under subsidies in time of crisis*, jointly with M. Bruguet.

REINHARC Simon, RAFATJAH Matthieu and BRUNET Charles (M1-MIDO) *Study of available bootstrap methods for estimating $MAR(p,q)$ mixed-causal models by (quasi-) maximum likelihood*.

BEAUVARLET Quentin and BLASCO Anaïs (M1-MIDO). *Study of available methods for forecasting $MARMA(p,q,r,s)$ models with α -stable distribution*.

2022. Anastasia Schenckery, Axel Sauvaget and Mathieu Navarro (M1-MIDO), *Study of the predictive density of causal and non-causal ARMA models using machine learning approaches*.

Karen Arban and Axelle Roques (M1-IEF), *Speculative bubbles*

Iannis Reuter (M2-AID), *Measuring the temperature sensitivity of energy consumption* jointly with R. Le Saout (CREST).

MEMBER OF PHD COMMITTEES

2023. Francesco Giancaterini (Univ. Maastricht), *Essays on Univariate and Multivariate Noncausal Processes*.

COMPUTER SKILLS

Julia (expert), EViews (expert), Gretl, LaTeX, MATLAB (expert), Python (expert), R (expert), SAS (expert), Shiny (advanced), SPARK, STATA, Parallel Computing.

TEACHING

- **Computer Science Project (Master 2 Digital Economics, in English, 2023-)**
- **Topics in Advanced Economic Analysis (Master 1 QEA in English, 2023-)**
- **Machine Learning for Quantitative Finance (Master 2 272 IEF, 2022-)**
- **Applied Time Series (Master 1 IEF and Master 1 AID, 2022-)**
- PSL-WEEK : Machine Learning and AI for Economics and Finance (2022)