Arthur Thomas Novembre 2023

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EMPLOYMENT

2022- **Assistant Professor (Maître de Conférences)**, *Université Paris-Dauphine, France*

2024 Visiting Professor, *Department of Quantitative Economics at Maastricht University, School of Business and Economics, Netherland*

2021- **Associated Researcher** in the Climate Economics Chair, *Université Paris-Dauphine, France.*

2020- **Affiliated Member** *CREST-ENSAE, 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 (2023). Path prediction of aggregated α-stable moving averages using semi-norm representations. Previous version by Sébastien Fries available here

Gilles De Truchis, Elena Dumitrescu, Sébastien Fries and Arthur Thomas (2023). Bet on a bubble asset? An optimal portfolio allocation strategy (2023).

Zakaria Moussa, Arthur Thomas (2023). Identifying Oil Supply News Shocks and Their Effects on the Global Oil Market, USAEE Working Paper No. 21-490, Jun. 26, 2023.

Paul Bardon, Olivier Massol, Arthur Thomas (2023). Greening aviation: What do we expect from Sustainable Aviation Fuels (SAF).

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 (2023). Learning the predictive density of mixed-causal ARMA processes.

Yannick Le Pen, Zakaria Moussa, Arthur Thomas (2023). Regime Switching for Dynamic EquiCorrelation.

Marie Bruguet, Arthur Thomas (2023). 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; Revue Economique; Revue Française d'Economie; Revue Française d'Economie Politique.

ACADEMICS RESPONSIBILITIES

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- **Creation of a new 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 Econometres" working group**

SELECTED CONFERENCES AND WORKSHOPS

2024. **4th Italian Workshop of Econometrics and Empirical Economics**: "Climate and Energy Econometrics", Bolzano – Bozen, Italy, *Italian Econometric Association (SIdE-IEA), in collaboration with the Rimini Center for Economic Analysis (RCEA)*

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.

Internal Friday Lunch meeting, Chaire Economie du Climat, Paris, France

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

2022 – **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 Econometrics (PhD Program, 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)