

# Arthur Thomas



INSTITUT  
POLYTECHNIQUE  
DE PARIS



## Personal Information

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Website: [www.arthurthomas.fr](http://www.arthurthomas.fr)  
Email: [arthur.thomas@univ-nantes.fr](mailto:arthur.thomas@univ-nantes.fr)  
Num: +33 6 45 50 97 27

**ENSAE Paris**  
Bureau 3098  
5 avenue Henry le Chatelier  
TSA 26644 - 91764 PALAISEAU Cedex

## Academic positions

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### Teaching Fellow for Computer Science in ENSAE Paris

Sept 2020 - École Nationale de la Statistique et de l'Administration Économique (ENSAE), France

### CREST-ENSAE Affiliated Member

Mai 2021

### Associated researcher in the Climate Economics Chair

Mai 2021

### Associated researcher in the Chair of the Economics of Natural Gas

Oct 2017

## Research interests

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Bayesian Econometrics; Noncausal Econometrics; Structural Econometrics; Energy economics; Forecasting; Machine Learning

## Education

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### PhD in Economics

16 Oct 2017 - 14 Dec 2020

LEMNA, Université de Nantes, EDGE, France

- Title: *The Econometrics of Energy Demand: Identification and Forecast*
- Advisors: Benoît Sévi (Professeur, Université de Nantes)
- Co-Advisors: Olivier Massol (Associate professor, City, University of London & IFP School)  
Committee::
  - Karim Abadir (Professor of Financial Econometrics, Imperial College London, External Reviewer)
  - Derek Bunn (Professor of Decision Sciences, London Business School)
  - Dimitris Korobilis (Professor of Econometrics, University of Glasgow, External Reviewer)
  - Valérie Mignon (Professeure des Universités, Université Paris Nanterre)

**Master of Science in Statistics** 2014-2017  
*Diplôme d'ingénieur - France's Grandes écoles", ENSAI (RENNES) - National School for Statistics and Data Analysis*

**Preparatory classes (MP)** 2012-2014  
*Lycée Henry Poincaré (Nancy)*

## **Research activity**

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### **Publications:**

**How are day-ahead prices informative for predicting the next day's consumption of natural gas? Evidence from France, *The Energy Journal* (HCERES: A, CNRS: 1)** 2021  
avec Olivier Massol et Benoît Sévi

### **Working paper:**

**A Structural Non-causal VAR Model of the Global Oil Market: the Role of Oil Supply News Shocks** 2020  
avec Zakaria Moussa

**Considering real-time demand to forecast the U.S. natural gas price in real-time: The role of temperature data** 2020  
avec Benoît Sévi and Zakaria Moussa

**The role of expectations in predicting the real prices of oil: a non-causal analysis** 2020

**Production intermittence in spot electricity markets: a behavioral simulations approach** 2019  
avec Albert Banal-Estanol, Olivier Massol et Augusto Ruperez Micola

### **Communications**

*2020*

- Thé des économètres, Paris, France.
- 37<sup>th</sup> International Conference of the French Finance Association (AFFI), Nantes, France.
- 19<sup>ème</sup> Journée d'Économétrie, Développements Récents de l'Econométrie Appliquée à la Finance, EconomiX, Nanterre, France (présentation et discussions).
- 2nd International Conference Environmental Economics: A Focus on Natural Resources, University of Orleans.

*2019*

- Discutant junior invité au Séminaire doctorant, Université Paris Nanterre, France.

- 13<sup>th</sup> International Conference on Computational and Financial Econometrics, London, UK.
- INFORMS Annual meeting 2019, Seattle, USA.
- 13<sup>th</sup> Annual Trans-Atlantic Infraday Conference, Washington, USA.
- 18<sup>ème</sup> Journée d'Économétrie, Développements Récents de l'Econométrie Appliquée à la Finance, EconomiX, Nanterre, France (présentation et discussions).
- Séminaire CREST-ENSAI 2019, Rennes, France.
- Thé des économètres, Orléans, France.
- Workshop in Financial Econometrics, Nantes, France.
- The 3<sup>rd</sup> Commodity Markets Winter Workshop-Leibniz University, Hannover, Germany.
- Workshop EDGE 2019, Rennes, France.
- The 2<sup>nd</sup> International Conference The Economics of Natural Gas, University Paris-Dauphine, Paris, France.

*2018*

- 12<sup>th</sup> International Conference on Computational and Financial Econometrics, Pisa, Italy.
- 41<sup>st</sup> edition of the IAEE international conference, Groningen, Netherland.
- FAEE summer workshop, Mines ParisTech, Paris, France (présentation et discussions).
- 29<sup>th</sup> European Conference On Operational Research. Valencia, Spain.
- INFORMS 2018 Annual Meeting Phoenix, USA.
- 11<sup>th</sup> Annual Trans-Atlantic Infraday Conference, Washington, USA.
- Commodities and Energy Market Organization in the Energy Transition Context, IFP Energies nouvelles, Rueil-Malmaison, France.

### **Refereeing activities**

*Annals of economics and statistics , Energy Journal, Energy Economics*

### **Other research activities**

- Conference organization:
  - 43<sup>rd</sup> IAEE International Conference, Paris, France.
  - 37<sup>th</sup> International Conference of the French Finance Association (AFFI), Nantes, France

- **Junior researcher associated in "Les Jeunes Economètres"**

Les Jeunes Economètres is a working group created in September 2016 on time series econometrics. Its aim is to bring together young econometricians (doctoral students at the end of their thesis, post-doctoral fellows and young Associate professors) from the Paris region in order to encourage scientific collaboration and the setting up of funded projects. The group meets monthly at a seminar entitled "Thé des économètres" for presentations and discussions on theoretical and applied econometric issues. It currently includes 27 members from the Universities of Panthéon-Sorbonne, Paris Dauphine, Paris Nanterre, Paris 8, Paris 13, Orléans, Cergy, Nantes, ENSAE (CREST), ESSEC Business School and Paris School of Economics

## **References**

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### **Benoît Sévi**

Professeur des Universités  
Director of LEMNA (EA 4272),  
Université de Nantes  
[benoit.sevi@univ-nantes.fr](mailto:benoit.sevi@univ-nantes.fr)  
Tel: +33 (0) 2 40 14 17 96  
LEMNA EA 4272, Université de Nantes  
Chemin de la Censive du Tertre  
Bâtiment Tertre, BP 52231  
44322 Nantes cedex 3  
Website:  
<https://sites.google.com/site/benoitsevi/>

### **Olivier Massol**

Associate Professor in Economics  
IFP School  
Center for Economics and Management  
228-232 avenue Napoléon Bonaparte,  
92852 Rueil-Malmaison Cedex, France.  
[olivier.massol@ifp.fr](mailto:olivier.massol@ifp.fr)

### **Karim Abadir**

Professor of Financial Econometrics  
Imperial College  
3.03 53 Prince's Gate  
South Kensington Campus  
London, UK  
E-mail : [k.m.abadir@imperial.ac.uk](mailto:k.m.abadir@imperial.ac.uk)  
Website:  
<https://www.imperial.ac.uk/people/k.m.abadir>

### **Dimitris Korobilis**

Professor of Econometrics  
Adam Smith Business School  
University of Glasgow  
[Dimitris.Korobilis@glasgow.ac.uk](mailto:Dimitris.Korobilis@glasgow.ac.uk)  
Tel: +44 (0) 141 330 2950  
University Avenue  
G12 8QQ, Glasgow, UK  
<https://sites.google.com/site/dimitriskorobilis/>

## **Teaching activities**

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**Teaching assistant**

**Deep Learning: Models and Optimization (6h)**  
*M2-ENSAE*

Janv 2021

**Lecturer:**

**Time series econometrics (18h)**  
*M2-EEET Université Paris-Saclay*

Janv 2021

**Lecturer: Introduction to Python (6h)**  
*M2- ENSAE*

2020

**Lecturer: Introduction to R (6h)**  
*M2 -ENSAE*

2020

**Teaching assistant: Econometrics (30h)**  
*Pantheon-Sorbonne Master In Economics*  
Université Paris 1 Panthéon Sorbonne

2019

**Teaching assistant: Time series modelling (40h)**  
*Université Paris-Descartes*

2017

## **Miscellaneous**

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*Languages*      Français (Native)  
                  English - TOEIC: 890/990  
                  German- level A2

*Software*      Java, C++ and C#

*Statistical software*      Stata, SAS, R, Python, Matlab and Julia, GPU