# Paul Labonne

Email: labonnepaul@gmail.com Website: https://paullabonne.github.io Github: https://github.com/paullabonne

Time series predictive modelling & Software development for machine learning applications

#### Education

	King's College London
2022	PhD Economics, scholarship from ESCoE
	University of Warwick
2016	MSc Economics
	Paris School of Economics
2015	MA Economics
	University Paris 1 Panthéon-Sorbonne
2014	BSc Econometrics

#### Work experience

2025 -	Department of Computing, Imperial College London Research Associate
2020	Department of Economics, BI Norwegian Business School
2021 - 2025	Postdoc
	Office for National Statistics
2017 - 2021	Researcher - Secondee from ESCoE
	King's College London
2018 - 2020	Teaching Assistant
	National Institute of Economic and Social Research (NIESR)
2017	Research internship
	European Investment Bank
2017	Graduate internship, Economics Department

## Scientific programming and software development

 $\bf R$  - created Bayes MultiMode, available on CRAN /  $\bf Python$  with JAX, NumPy, pand as, PyTorch /  $\bf C++$  with Rcpp and CppAD /  $\bf Git$  / AWS and GCP / Unit testing /  $\bf Docker$  see my Github for a full overview

## Machine learning

Regression analysis / Forecasting / Nowcasting / Big data (PCA, Ridge / LASSO) / Filtering (Kalman & score driven) / Risk & uncertainty / Bootstrap, Monte Carlo / Maximum likelihood / Bayesian analysis / Backpropagation with automatic differentiation / NLP (word2vec) / Trend and seasonality / Temporal disaggregation

# Languages

French (native), English (fluent)

# Academic Annex - Paul Labonne

#### **Publications**

- BayesMultiMode: Bayesian mode inference in R
   with Nalan Basturk, Jamie Cross, Peter de Knijff, Lennart Hoogerheide and Herman K. van Dijk
   Journal of Statistical Software, accepted
- Asymmetric uncertainty: nowcasting using skewness in real-time data International Journal of Forecasting, 2024
- Bayesian mode inference for discrete distributions in economics and finance with Jamie Cross, Lennart Hoogerheide and Herman K. van Dijk Economics Letters, 2024
- Temporal disaggregation of overlapping noisy quarterly data: Estimation of monthly output from UK Value Added Tax data with Martin Weale

  Journal of the Royal Statistical Society A, 2020
- The financial foundations of the productivity puzzle with Jagjit S. Chadha and Amit Kara National Institute Economic Review, 2017

## Working papers

- Risky news and credit market sentiment with Leif Anders Thorsrud
- Flexible Negative Binomial Mixtures for Credible Mode Inference in Heterogeneous Count Data from Finance, Economics and Bioinformatics with Jamie Cross, Lennart Hoogerheide and Herman K. van Dijk R&R Journal of Econometrics

# Peer-review activity

International Journal of Forecasting, Oxford Bulletin of Economics and Statistics