Xavier D'Haultfœuille CREST - ENSAE 5 avenue Henry Le Chatelier 91 120 Palaiseau, France.

Web: faculty.crest.fr/xdhaultfoeuille email: xavier.dhaultfoeuille(at)ensae.fr

## Current and past positions

Professor in economics at CREST-ENSAE, Sept 2011-now. Researcher on firms' strategies issues at INSEE, 2008-2011. Teaching Assistant in statistics and econometrics, ENSAE, 2005-2008. Researcher on data collection issues at the methodological unit of INSEE, 2000-2003.

## Education

"HDR" (habilitation to supervise PhD's) in Economics (Sciences Po), October 2014.PhD in Economics, Paris I and CREST, June 2009.M.Sc in Economics and Statistics, ENSAE, June 2005.M.Sc in Economics, Paris 1, June 2004.ENSAI (as a civil servant), June 1999.

### **Fields of interest**

Econometric theory, empirical industrial organization, labor economics.

#### Publications

"Difference-in-Differences Estimators of Intertemporal Treatment Effects" (with Clément de Chaisemartin), forthcoming at *Review of Economics and Statistics*.

"Partially Linear Models under Data Combination" (with Christophe Gaillac and Arnaud Maurel), forthcoming at *Review of Economic Studies*.

"Difference-in-Differences Estimators with Continuous Treatments and no Stayers" (with Clément de Chaisemartin and Gonzalo Vazquez-Bare), *AEA Papers & Proceedings*, **114** (2024).

"A Robust Permutation Test for Subvector Inference in Linear Regressions" (with Pujee Tuvaandorj), *Quantitative Economics*, **15** (2024).

"Testing and Relaxing the Exclusion Restriction in the Control Function Approach" (with Stefan Hoderlein and Yuya Sasaki), *Journal of Econometrics*, **240** (2024).

"Two-Way Fixed Effects and Differences-in-Differences with Heterogeneous Treatment Effects: A Survey" (with Clément de Chaisemartin, *Econometrics Journal*, **26** (2023).

"Two-way Fixed Effects Regressions with Several Treatments" (with Clément de Chaisemartin), *Journal of Econometrics*, **236** (2023).

"Fixed Effects Binary Choice Models with Three or More Periods" (with Laurent Davezies and Martin Mugnier), *Quantitative Economics*, **14** (2023).

"An alternative to synthetic control for models with many covariates under sparsity" (with Marianne Bléhaut, Jérémy L'Hour and Alexandre Tsybakov), in Belomestny, D. et al. (eds) Foundations of Modern Statistics. Springer (2023).

"Nonparametric Difference-in-Differences in Repeated Cross Sections with Continuous Treatments", (with Stefan Hoderlein and Yuya Sasaki), *Journal of Econometrics*, **234** (2023).

"The Marcinkiewicz-Ziegmund Law of Large Numbers for Exchangeable Arrays" (with Laurent Davezies and Yannick Guyonvarch), *Statistics and Probability Letters*, **188** (2022).

"Rationalizing Rational Expectations? Characterizations and Tests" (with Christophe Gaillac and Arnaud Maurel), *Quantitative Economics*, **12** (2021).

"Empirical Process Results for Exchangeable Arrays" (with Laurent Davezies and Yannick Guyonvarch), *Annals of Statistics*, **49** (2021).

"Segregsmall: A command to estimate segregation in the presence of small units", (with Lucas Girard and Roland Rathelot), *Stata Journal*, **21** (2021).

"Two-way fixed effects estimators with heterogeneous treatment effects", (with Clément de Chaisemartin), *American Economic Review*, **110** (2020).

"Estimating Selection Models without Instrument with Stata" (with Arnaud Maurel, Xiaoyun Qiu and Yichong Zhang), *Stata Journal*, **20** (2020).

"The Provision of Wage Incentives: A Structural Estimation Using Contracts Variation" (with Philippe Février), *Quantitative Economics*, **11** (2020).

"Automobile Prices in Market Equilibrium with Unobserved Price Discrimination" (with Isis Durrmeyer and Philippe Février), *Review of Economic Studies*, **86** (2019).

"Fuzzy Differences-in-Differences with Stata" (with Clément de Chaisemartin and Yannick Guyonvarch), *Stata Journal*, **19** (2019). The Stata command fuzzydid is available on the SSC repository.

"A Cautionary Tale on Instrument Vector Calibration for the Treatment of Unit Nonresponse in Survey" (with David Haziza and Eric Lesage), *Journal of the American Statistical Association*, **114** (2019).

"Fuzzy Differences-in-Differences" (with Clément de Chaisemartin), Review of Economic Studies, 85 (2018).

"Extremal Quantile Regression for Selection Models, and the Black-White Wage Gap" (with Arnaud Maurel and Yichong Zhang), *Journal of Econometrics*, **203** (2018).

"Identification of Additive and Polynomial Models of Mismeasured Regressors without Instruments" (with Arthur Lewbel and Dan Ben-Moshe), *Journal of Econometrics*, **200** (2017).

"Measuring Segregation on Small Units: A Partial Identification Analysis" (with Roland Rathelot), *Quantitative Economics*, **8** (2017).

"Disentangling Sources of Vehicle Emissions Reduction in France: 2003-2008" (with Isis Durrmeyer and Philippe Février), *International Journal of Industrial Organization*, **47** (2016).

"A Convenient Method for the Estimation of Multinomial Logit Model with Fixed Effects" (with Alessandro Iaria), *Economics Letters*, **141** (2016).

"Identification of Mixture Models Using Support Variation" (with Philippe Février), *Journal of Econometrics*, **189** (2015)

"Identification of Nonseparable Models with Endogeneity and Discrete Instruments" (with Philippe Février), *Econometrica*, **83** (2015).

"La régression quantile en pratique" (with Pauline Givord), Economie et Statistique, 471 (2014).

"The Environmental Effect of Green Taxation: The Case of the French "Bonus/Malus"" (with Pauline Givord and Xavier Boutin), *Economic Journal*, **124** (2014).

"Inference on an Extended Roy Model, with an Application to Schooling Decisions in France" (with Arnaud Maurel), *Journal of Econometrics*, **174** (2013).

"Another Look at Identification at Infinity of Sample Selection Models" (with Arnaud Maurel), *Econometric Theory*, **29** (2013).

"Le coût du bonus/malus écologique : que pouvait-on prédire ?" (with Isis Durrmeyer and Philippe Février), *Revue économique*, **62** (2011).

"On the Completeness Condition for Nonparametric Instrumental Problems", Econometric Theory, 27 (2011).

"A New Instrumental Method for Dealing with Endogenous Selection", Journal of Econometrics, 154 (2010).

"Identification of Peer Effects Using Group Size Variation" (with Laurent Davezies and Denis Fougère), *Econometrics Journal*, **12** (2009).

"Measuring the Evolution of Complex Indicators: Theory and Application to the Poverty Rate in France" (with Fabien Dell), *Annals of Economics and Statistics*, **90** (2008).

## Work in progress

"Identification and Estimation of average marginal effects in fixed effect logit models" (with Laurent Davezies and Louise Laage), under revision at *Review of Economic Studies*.

"Estimating the Gains (and Losses) of Revenue Management" (with Philippe Février, Ao Wang and Lionel Wilner), under revision at *Quantitative Economics*.

"Difference-in-Differences for Continuous Treatments and Instruments with Stayers" (with Clément de Chaisemartin, Félix Pasquier, Gonzalo Vazquez-Bare and Doulo Sow).

"Two-way Fixed Effects and Difference-in-Difference Estimators in Heterogeneous Adoption Designs without Stayers" (with Clément de Chaisemartin, Diego Cicca and Felix Knau).

"Under the null of valid specification, pre-tests cannot make post-test inference liberal" (with Clément de Chaisemartin).

"Linear Regressions with Combined Data" (with Christophe Gaillac and Arnaud Maurel).

"Analytic inference with two-way clustering" (with Laurent Davezies and Yannick Guyonvarch).

"Empirical MSE Minimization to Estimate a Scalar Parameter" (with Clément de Chaisemartin).

"Identification and Estimation of Games of Incomplete Information with Multiple Equilibria" (with Alessandro Iaria and Elia Lapenta).

"Price Discrimination and Online Sales in the Automobile Industry" (with Isis Durrmeyer, Jean-François Fournel and Alessandro Iaria).

"A New Characterization of Identified Sets in Partially Identified Models" (with Laurent Davezies).

#### Grants and awards

2023- : Principal investigator of the ANR project "Ricode" (Robust Inference with COmplex DEsigns).2019: Malinvaud Prize for the best paper published in 2018 by a young economist working in France (for "Fuzzy Differences", with Clément de Chaisemartin).

2017-2022: Principal investigator of the ANR project "Otelo" (On Treatment Effects estimation using LOngitudinal data).

2015: Dennis J. Aigner Award for the best applied paper published in Journal of Econometrics between 2013 and 2014 with "Inference on an Extended Roy Model, with an Application to Schooling Decisions in France" (with Arnaud Maurel).

#### Visits (one week or more)

Paris School of Economics, September 2020-August 2021. Yale University (Cowles Foundation), April 2018. Toulouse School of Economics, April-May 2015. Boston College, January – June 2013.

## **PhD Students Supervision**

Félix Pasquier, "Robust Evaluation of Public Policies to Heterogeneous Treatment Effects", September 2020-now (co-supervised with Arne Uhlendorff).

Martin Mugnier, "Nonlinear panel data models and high-dimensional statistics", September 2019-June 2023. Lucas Girard, "Data quality and identification" September 2017-December 2021.

Ao Wang, "High-dimensional statistics in empirical industrial organization", September 2016-June 2020.

Jérémy L'Hour, "Treatment Effects Evaluation with High-dimensional Data", September 2015-December 2019. Jérémy now works at INSEE.

Benjamin Walter, "Two essays on the market for Bitcoin mining and one essay on the fixed effects logit model with panel data", September 2015-August 2018. Benjamin now works at Credit Suisse.

# Teaching

Econometrics 1 (linear model) at ENSAE (graduate course), 2019-now.

Econometrics 1 at the Master in Economics (1st year), 2017-2019.

Lectures on semi and nonparametric econometrics at ENSAE (graduate course), 2009-now.

Econometrics 2 (nonlinear models) at ENSAE (graduate course), 2006-2009, 2014-2019.

Co-responsible of the unit "quantitative methods" of the Public Action Master at Ecole Nationale des Ponts et Chaussées, 2005-2006.

Teaching assistant in probability (2008-2009), measure theory and integration (2005-2008), statistics (2005-2006), advanced survey sampling (2005-2006), time series (2005-2006) at ENSAE.

Teaching assistant in survey sampling at CNAM (2003-2004).

# Administrative duties

Director of the Labex Ecodec, September 2019-June 2020. Deputy of the Labex Ecodec, September 2016-August 2019.

## **Editorial activities**

Managing editor of The Review of Economic Studies (2023-).

Past co-editor of Annals of Economics and Statistics (2013-2015).

Associate editor for *Quantitative Economics (2021-2024)*, *Econometrics Journal (2016-)*, *Econometric Theory (2017-)*, *Annals of Economics and Statistics (2016-)*, *The Review of Economic Studies (2016-2023)*.

Referee for American Economic Review, Annals of Statistics, Applied Economic Letters, Bernoulli, Econometrica, Economic Journal, Journal of Business and Economic Statistics, Journal of Applied Econometrics, Journal of Econometrics, Journal of the European Economic Association, Journal of Political Economy, Journal of the Royal Statistical Society (series B), Journal of the American Statistical Association, Macroeconomic Dynamics, Oxford Bulletin of Economics and Statistics, Political Analysis, Quarterly Journal of Economics, RevStat, Statistics and Probability Letters, The Rand Journal of Economics, The Review of Economics and Statistics.

Referee for the European Research Council, the Agence Nationale de la Recherche (France), the National Science Foundation (USA) and the Swiss National Science Foundation.

## Organization of workshops and conferences

2017: 9<sup>th</sup> French Econometric Conference (with L. Davezies).
2013: Stats in Paris (with P. Bertail, A. Chesher, P. Ebbes, E. Gautier, M. Patnam, A. Simoni).
2010: 2<sup>nd</sup> French Econometrics Conference (with P. Février and M. Visser).

#### **Scientific Committees**

2023: International Association for Applied Econometrics
2020-2021: European Economic Association Summer Meeting (for econometrics).
2017-2019: French Econometrics Conference.
2016-2019: European Meeting of the Econometric Society.