

# João António Mendes da Cruz

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**Nationality:** Portuguese

**Date of Birth:** 15/09/1994



## Education

### OCTOBER 2019-JUNE 2024 (PROSPECTIVE):

MRes+PhD in Economics at the University of Surrey, MRes concluded with *Distinction*

MRes dissertation supervised by Prof. João Santos Silva and Prof. Jo Blanden: "Intergenerational Income Mobility in the US: A Study using Mixtures"

PhD dissertation supervised by Dr. Federico Martellosio and Prof. João Santos Silva: "Efficient Estimation and Inference with Binary Response Dyadic Regression" and "Penalized Quantile Regression Based on Moments"

### SEPTEMBER 2015-DECEMBER 2017:

- Master's Degree in Applied Econometrics and Forecasting at ISEG, Universidade de Lisboa (GPA: 18 out of 20)

Dissertation supervised by Prof. João Nicolau: "Structural Changes in Duration of Bull and Bear Markets and their Connection with Business Cycles" (score: 19 out of 20)

### SEPTEMBER 2012- JULY 2015:

- Undergraduate Degree in Mathematics Applied to Economics & Management at ISEG, Universidade de Lisboa (GPA: 15 out of 20)

### SCHOLARSHIPS:

- Bolsa de Estudo Fundação Económicas – Prémio Excelência
- FASS Postgraduate Research Scholarship at the University of Surrey

## Work Experience

### SEPTEMBER 2017- AUGUST 2019:

- Assistant Professor at ISEG, Universidade de Lisboa – Mathematics Department

### OCTOBER 2017- MARCH 2018:

- Internship at the Bank of Portugal – Financial Stability Department

### FEBRUARY 2017- AUGUST 2017:

- Internship at the Portuguese National Communication Authority (ANACOM) – Research Area

### SEPTEMBER 2015- JUNE 2016:

- Tutor of Econometrics, Statistics and Accounting at Centro de Explicações AEISEG

## Modules Taught

### AT THE UNIVERSITY OF SURREY

Econometrics II, International Trade, Mathematics for Economics, Principles of Microeconomics, and Quantitative Methods

### AT ISEG, UNIVERSIDADE DE LISBOA

Data Analysis in Finance, Descriptive Statistics, Econometrics, Econometrics II, Statistics I, and Statistics II

## Research Fields

Econometrics, Statistics, Machine Learning, Trade, Market Cycles, Wages, Gender Pay Gap

## Works in Progress

- Efficient Estimation and Inference with Binary Response Dyadic Regression
- Penalized Quantile Regression Based on Moments

## Working Papers

- Cruz, J., Bastos, A., Casaca, S. F., & Proença, I. The Gender Pay Gap in STEM – An Empirical Analysis for Portugal (at a submission process to the International Labour Review)

## Publications

- Amaro, F., Bastos, A., Cruz, J., & Proença, I. (2023). Mind the Gap: The Effects of Eliminating the Gender Pay Gap on Income and Poverty. *Journal of Poverty*, 1-19.
- Cruz, J., Nicolau, J., & Rodrigues, P. M. (2021). Structural Changes in the Duration of Bull Markets and Business Cycle Dynamics. *Asia-Pacific Financial Markets*, 28(3), 333-352.

## Book Chapters

- Casaca, S. F., Amaro, M. F., Bastos, A., Cruz, J., Perista, H., & Proença, I., (2022). Desigualdades entre mulheres e homens no mercado de trabalho. In N. Simões & N. Crespo (Eds.), *Mercado de Trabalho em Portugal – do Salário Mínimo ao Teletrabalho*. Almedina.

## Other Projects and Research

- Participation in a study on the social and economic benefits of equal pay between women and men. Project website at <https://genderpaygap-elimination.pt/en/>
- Participation in a study on the gender pay gap in Portugal for the International Labour Organization. Available at [https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-lisbon/documents/genericdocument/wcms\\_836145.pdf](https://www.ilo.org/wcmsp5/groups/public/---europe/---ro-geneva/---ilo-lisbon/documents/genericdocument/wcms_836145.pdf)
- Data analysis for several company gender audits under coordination of SOCIUS – Centro de Investigação em Sociologia Económica e das Organizações and CESIS – Centro de Estudos para a Intervenção Social

## Skills

### SOFTWARE:

- Advanced knowledge in R, Stata, SPSS, TSP, LaTeX & Office
- Maintainer of ‘penppml’, an R-package for penalized Poisson Pseudo-Maximum Likelihood estimation

### LANGUAGES:

- Portuguese (native)
- English (fluent)

## Volunteering

### APRIL 2018-JULY 2018

- Tutor of Mathematics to 7<sup>o</sup>, 8<sup>o</sup> and 9<sup>o</sup> grade children at Centro Cultural e Recreativo das Crianças do Cruzeiro e Rio-Seco

### AUGUST 2016-APRIL 2017

- Volunteer at ReFood Portugal