

# Angela Caro Navarro

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## Education

- 2016–2020 **Ph.D in Business Economics and Quantitative Methods**, *Statistics Department, Carlos III University of Madrid, Madrid (Spain).*
- 2014–2016 **Master in Business Economics and Quantitative Methods**, *Carlos III University of Madrid, Madrid (Spain).*
- 2010–2014 **Degree in Business Administration and Management**, *University of Malaga, Malaga (Spain).*

## Academic training and professional training

- 2020 **Flipped classroom y SPOC**, Carlos III University of Madrid, Getafe.
- 2018 **Use and management of information sources for research in digital environments**, Carlos III University of Madrid, Getafe.
- 2018 **Topics in Computational Statistics**, *Statistics Department, Carlos III University of Madrid, Getafe.*
- 2018 **How to write and publish your papers in high-impact journals, Charlesworth Knowledge**, Carlos III University of Madrid, Getafe.
- 2018 **Web Of Science – medium and high level**, Carlos III University of Madrid, Getafe.
- 2017 **Short course on Robust Statistics using FSDA Matlab Toolbox**, *Statistics Department, Carlos III University of Madrid, Getafe.*
- 2017 **An Introduction to Le Cam's Asymptotic Theory of Statistical Experiments**, *Statistics Department, Carlos III University of Madrid, Getafe.*

## International stays

- 2019 **London School of Economics and Political Science**, *Statistics Department, London (United Kingdom).*
- 2017 **Vrije University of Amsterdam**, *Econometrics and Data Science Department, Amsterdam (The Netherlands).*

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## Master tesis

Title *A Chronological Analysis of the Business Cycle Synchronization in the Euro Area and the Effects of the Financial Crisis.*

Supervisors Maximo Camacho Alonso and German Lopez Buenache

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## Teaching experience

- 2019–2020 **Econometrics I, Degree in Finance and Accounting**, *Carlos III University of Madrid.*
- 2018–2019 **Econometrics I, Degree in Finance and Accounting**, *Carlos III University of Madrid.*
- 2017–2018 **Econometrics I, Degree in Finance and Accounting**, *Carlos III University of Madrid.*
- 2017–2018 **Statistical methods for social sciences: Prevision techniques, Dual Bachelor in International Studies - Law**, *Carlos III University of Madrid.*
- 2016–2017 **Econometrics II, Degree in Finance and Accounting**, *Carlos III University of Madrid.*
- 2014–2014 **Econometrics I, Degree in Finance and Accounting**, *Carlos III University of Madrid.*
- 2014–2014 **Statistics I, Degree in Business Administration and Management**, *Carlos III University of Madrid.*

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## Scholarships and grants

- 2019–2020 **Mobility grant for short stays of FPU 2018 beneficiaries**, *Spanish Ministry of Education, Culture and Sport*, London School of Economics and Political Sciences, London (United Kingdom).  
Statistics department
- 2016–2020 **Aid for the training of university teachers (FPU)**, *Spanish Ministry of Education, Culture and Sport*, Carlos III University of Madrid.  
Statistics department
- 2014–2015 **Support for university master's study**, *Carlos III University of Madrid*, Getafe.  
Statistics department
- 2013–2014 **Erasmus Programm**, *Spanish Ministry of Education, Culture and Sport*, Leuphana University, Lunenburg (Germany).
- 2012 **Assistance to participate in English language immersion courses organized by the UIMP**, *Spanish Ministry of Education, Culture and Sport*, Menéndez Pelayo International University, La Coruña.
- 2011 **Language learning aids, MEC**, *Spanish Ministry of Education, Culture and Sport*, Bristol (United Kingdom).
- 2010-2014 **General scholarship for university students**, *Spanish Ministry of Education, Culture and Sport*, University of Malaga, Spain.

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## Research projects

- Title: "Big data" and Complex Data in Business and Finance.  
Financing entity: Ministry of Economy and Competitiveness  
Responsible researcher: Juan Romo Urroz

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## Publications

- Caro, A. and Peña, D. (2020) Predicción de series temporales económicas con datos masivos: perspectiva, avances y comparaciones. FUNCAS.
- Caro, A. and Peña, D. (2020) A test for the number of factors in Dynamic Factor Models. Submitted.
- Camacho, M., Caro, A. & Lopez-Buenache, G. The two-speed Europe in business cycle synchronization. *Empir Econ* 59, 1069–1084 (2020).  
<https://doi.org/10.1007/s00181-019-01730-4>
- Caro, A. and Peña, D. (2018) Estimation of the common component in Dynamic Factor Models. UC3M Working Papers. Statistics and Econometrics 18-03. ISSN: 2387-0303.  
<http://hdl.handle.net/10016/27047>

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## Congress and Workshop attendance

- Workshop: Modelling Economic and Financial Time series, Carlos III University of Madrid, Madrid, June 2019
- Workshop: Big Data en finanzas, FUNCAS, Madrid, April 2019
- Workshop: XV Conference on Applied Economics teaching, ALdE, Madrid, March 2019
- Workshop: 30 years of Cointegration and its future with Big Data, FUNCAS, Madrid, February 2019
- Congress: Statistical Methods for Big Data (SMBD2018), UC3M, Madrid, June 2018
- Congress: I Simposio Gadea Ciencia "Big Data and Data Science for learning in the digital worl", Fundacion Gadea por la Ciencia, Madrid, June 2018
- Congress: The twenty-eight *EC*<sup>2</sup> conference on Time-varying Parameter Models, Vrije University of Amsterdam, Amsterdam, December 2017
- Workshop: Brown Bag seminar, Vrije Universiteit of Amsterdam, Amsterdam.  
Title of the contribution: "The Two-Speed Europe in terms of Business Cycle Synchronization", October 2017
- Workshop: XX Encuentro de Economía Aplicada, ALdE, Universidad Católica de Valencia.  
Title of the contribution: "The Two-Speed Europe in terms of Business Cycle Synchronization", June 2017
- Workshop: New developments in Econometrics and Time Series, IFiBiD, Madrid, October 2016
- Workshop: Bayesian Econometrics, Carlos III University of Madrid, June 2016

## Research interest

- Time series Econometrics
- Dynamic Factor Models (DFM)
- DFM with cluster structure
- Macroeconomics
- Forecasting
- Machine Learning
- Energy economics

## Languages

Spanish	<b>Native</b>
English	<b>Advanced</b>
German	<b>Basic</b>

## Computer skills

Languages	<b>R, Mathematica, MATLAB, <math>\text{\LaTeX}</math></b>
Softwares	<b>Rstudio, STATA, Eviews, Gretl</b>