

## PERSONAL/CONTACT INFORMATION

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Date of Birth: April 5th, 1993. Gender: Female. Nationality: Spanish.

### ADDRESS

Applied Economics Department, Universidad de Málaga  
Faculty of Economics and Business Studies  
Plaza de El Ejido, 29071 Málaga (Spain)

### CONTACT

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Personal website: [ana.uborzz.es](http://ana.uborzz.es)

## EDUCATION

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2017 – 2022	PhD in Economics, Business, Finance and Computer Science (Universidad de Huelva and Universidad Internacional de Andalucía), with International Mention Thesis title: <b>Self-Employment at the Macro Level: Drivers, Inhibitors and Fluctuations</b> ( <a href="#">Download Thesis</a> ) Supervisors /Advisers: Máximo Camacho (Universidad de Murcia) and Emilio Congregado (Universidad de Huelva) Date: 30 September 2022. Committee (Examiners): Javier J. Pérez (BdE), Begoña Cueto (Universidad de Oviedo), André van Stel (Trinity College Dublin) Grade Excellent - Cum Laude.
2015 – 2016	MSc. in Economics, Finance and Computer Science (Universidad Internacional de Andalucía and Universidad de Huelva). Field: Business Analytics Grade 8,96/10 Master's thesis: <b>“What has changed after the Great Recession on the European cyclical patterns?”</b> Supervisor: Máximo Camacho (Universidad de Murcia) <a href="#">Award for the best Master Thesis (Maximum grade with honours-10)</a>
2011 – 2015	Bachelor in Tourism Management (Universidad de Huelva) Grade 8,6/10 <a href="#">Award for the best academic record</a>
2010 – 2015	Bachelor in Business Administration (Universidad de Huelva) Grade 8,55/10

## EVALUATION PROGRAMMES / ACCREDITATION

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- Accredited by the ANECA (Spanish Agency of Accreditation) as Assistant Professor. February 2023.
- Accredited by the DEVA (Andalusian Agency of Accreditation) as Associate Professor (Profesora Contratada Doctora) and as Assistant Professor (Profesora Ayudante Doctora). December 2022.

## **RESEARCH**

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### **FIELDS OF RESEARCH**

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- Applied Macroeconomics and Labour Economics.
- Bayesian econometrics, time series analysis, finite mixture models and Markov-Switching models.
- Self-employment/entrepreneurship.

### **PUBLISHED PAPERS IN INTERNATIONAL INDEXED JOURNALS**

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- Congregado, E., **Rodriguez-Santiago, A.**, and Roman, C. (2024). Is employment protection legislation a driver or an inhibitor of entrepreneurship? The interaction between stringency and enforcement. *International Journal of Manpower*, 45(10), 115-143, doi: 10.1108/IJM-11-2023-0705.
- Camacho, M., Congregado, E., and **Rodriguez-Santiago, A.** (2024). An inquiry into the drivers of an entrepreneurial economy: A Bayesian clustering approach. *Journal of Evolutionary Economics*, doi: 10.1007/s00191-024-00863-9.
- **Rodriguez-Santiago, A.** (2022). Re-evaluating the relationship between economic development and self-employment, at the macro-level: a Bayesian Model Averaging approach. *International Journal of Interactive Multimedia and Artificial Intelligence*, doi: 10.9781/ijimai.2022.01.007.
- Lopez-Perez, E., **Rodriguez-Santiago, A.**, and Congregado, E. (2020). Persistence in Self-Employment Rates before the Great Lockdown: The Case of the UK. *Sustainability*, 12(16), 6429. doi: 10.3390/su12166429.
- **Rodriguez-Santiago, A.** (2019). What has Changed After the Great Recession on the European Cyclical Patterns? *Journal of Business Cycle Research*, 1-26. doi: 10.1007/s41549-019-00038-7.

### **PAPERS IN PROGRESS**

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- Rodriguez-Santiago, A., Congregado, E., and Carmona, M. Procyclical and countercyclical components in aggregate self-employment dynamics: labour market performance vs. business confidence index.
- Congregado, E., Garcia-Clemente, J., Rodriguez-Santiago, A., and Rubino, N. Exploring the determinants and drivers of involuntary part-time employment with a European country panel.
- Carmona, M., Garcia-Clemente, J., and Rodriguez-Santiago, A. Marketing orientation and opportunity-based entrepreneurship: evidence at the micro and macro levels.

### **SCHOLARSHIPS**

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Oct. 2017 – Oct. 2022      Scholarship of research and educational training (FPU) by the Spanish Ministry of Education, Culture and Sports.

Sep. 2020 – Mar. 2021      Additional scholarship for temporary stays (FPU) by the Spanish Ministry of Education, Culture and Sports

### **RESEARCH STAYS**

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Feb. 2023 – May. 2023      Guest researcher in the Economics and Research Department of Bank of Portugal.

Sep. 2020 – Mar. 2021 Guest researcher in the Department of Economics of the Vienna University of Economics and business. Invitation by Prof. Crespo Cuaresma.

## RESEARCH GROUPS MEMBERSHIP

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Since Oct. 2017 *Spanish Entrepreneurship Research Group –SERG– (SEJ487)*  
Andalusian Research, Development and Innovation Plan  
Principal: Mónica Carmona (Universidad de Huelva)

## RESEARCH PROJECTS

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- 2021 – 2024 *El gran confinamiento como acelerador de las nuevas formas de empleo: cuestiones de género, sostenibilidad y resiliencia*  
Principal researchers: Concepción Román, Emilio Congregado  
Amount: 54.450 €  
Type of solicitation: National  
Funder: Spanish Ministry of Science, Innovation and Universities, PID2020-115183RB-C22
- 2021 – 2022 *Plataformas digitales y autoempleo como catalizadores del cambio en el mercado laboral*  
Principal researcher: Concepción Román  
Type of solicitation: Regional  
Amount: 30.254,84 €  
Funder: Junta de Andalucía, P20-00733
- 2020 – 2022 *Trabajo mediado por plataformas y conciliación de la vida laboral y familiar desde una perspectiva de género*  
Principal researcher: Mónica Carmona  
Type of solicitation: University of Huelva  
Amount: 10.000 €  
Funder: University of Huelva, 6452020
- 2020 – 2022 *Hacia un sector TIC consolidado, competitivo e integrador: un análisis de la brecha digital en Andalucía en perspectiva comparada.*  
Principal researcher: José María Millán Tapia  
Type of solicitation: Regional  
Amount: 15.306,12 €  
Funder: Junta de Andalucía, UHU-1265299
- 2018 – 2021 *Repensando el papel del autoempleo en mercados de trabajo escleróticos: Lecciones extraídas de la Gran Recesión.*  
Principal researcher: Concepción Román  
Type of solicitation: National  
Amount: 19.965 €  
Funder: Spanish Ministry of Economy and Competitiveness, ECO2017-86402-C2-2-R
- 2017 – 2019 *The cyclicity of the labour force participation. The added/discouraged worker effect analysis.*  
Principal researcher: Ewa Galecka-Burdziak

Type of solicitation: National  
Funder: National Science Centre, Poland, UMO-2016/21/D/HS4/02808

## SEMINARS INSTRUCTION

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- Jun. 2023      *Gestión de la bibliografía con Mendeley*  
                  8th Doctoral Workshop in Big Data & Labor Economics, Huelva
- Jun. 2018      *Bayesian Mixture Models*  
                  II Doctoral Workshop in Economics, Big Data and Computer Science, Huelva

## CONFERENCES PRESENTATIONS

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- Jul. 2024      *Exploring the determinants and drivers of involuntary part-time employment with a European country panel*  
                  XVI Labour Economics Meeting, Barcelona
- May. 2024      *Marketing orientation and opportunity-based entrepreneurship: evidence at the micro and macro levels*  
                  7th Paper Development Seminar, Sevilla
- Jan. 2023      *Is employment protection legislation a driver or an inhibitor of entrepreneurship? The interaction between stringency and enforcement*  
                  6th ASTRIL Conference, Rome (Italy)
- Jul. 2022      *The interaction between employment protection legislation stringency in determining the differences in national self-employment rates across OECD countries*  
                  XV Labour Economics Meeting, Albacete
- Jun. 2022      *The role of labour market institutions as a driver of self-employment in OECD countries: a Bayesian approach*  
                  8th International Conference on Time Series and Forecasting, Gran Canaria
- Jun. 2022      *Procylical and countercyclical components in aggregate self-employment dynamics: labour market performance vs. business confidence index*  
                  XXIV Applied Economics Meeting, Palma
- Jun. 2021      *The determinants of self-employment in OECD countries: A Bayesian approach*  
                  XIV Labour Economics Meeting, Online
- Jun. 2019      *Cyclical behaviour and shock-persistence of the labour force participation: the Spanish case*  
                  XIII Labour Economics Meeting, Huelva
- Jun. 2019      *The new dynamics of Self-Employment: labour market performance vs. business confidence index*  
                  XIII Labour Economics Meeting, Huelva
- Nov. 2018      *The new dynamics of Self-Employment: labour market performance vs. business confidence index*  
                  XX Seminario Hispano-Luso de Economía Empresarial, Huelva

Abr. 2018      *The new dynamics of Self-Employment: labour market performance vs. business confidence index*  
Global Workshop on Freelancing & Self-employment Research, London (United Kingdom)

Jun. 2017      *What has changed after the Great Recession on the European cyclical patterns?*  
XVIII Conference on International Economics, La Rábida (Huelva)

## SPECIALIZATION COURSES AND SEMINARS

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- Modelización, computación y calibración macroeconómica. Instructor: José Luis Torres (UMA). Escuela de Doctorado de la Universidad de Huelva. July 2024.
- Econometric Analysis Under Model Uncertainty. Instructor: Jesús Crespo-Cuaresma (WU). Universidad Internacional de Andalucía. September 2022.
- Introduction to Synthetic control Methods with Stata. Instructors: Antonio Di Paolo (UB) and Raúl Ramos (UB). Asociación Española de Economía del Trabajo. June 2022.
- Importancia y técnicas de presentación para el procesado de series temporales: aplicación a diferentes áreas de estudio y/o trabajo. Instructor: Juan Moreno (UCLM). Universidad de Huelva. April 2022.
- Kalman filter and real-time forecasting. Instructor: Máximo Camacho (Universidad de Murcia). Universidad de Huelva and Universidad Internacional de Andalucía. December 2021.
- Análisis empírico de conflictos y desigualdad. Instructor: Marcos Sansó (Universidad de Zaragoza). Universidad de Huelva and Universidad Internacional de Andalucía. July 2021.
- LaTeX course. Instructor: Julia Feria (Universidad de Huelva). Universidad de Huelva and Universidad Internacional de Andalucía. July 2021.
- Experimental approach in labour and development economics. Instructor: Mónica Martínez Bravo (CEMFI). Asociación Española de Economía del Trabajo. June 2021.
- Topics in macroeconomics: Model uncertainty. Instructor: Jesús Crespo-Cuaresma (WU). Vienna University of Economics and business. January 2021.
- Bayesian Econometrics II. Instructor: Sylvia Frühwirth-Schnatter (WU). Vienna University of Economics and business. January 2021.
- Big data applications for real-time policy analysis in central Banks. Instructor: Javier Pérez (BdE). Universidad Internacional de Andalucía and Universidad de Huelva. December 2020.
- Time series with Stata 16 (Stata Specialization School 2020). Instructor: Antonio Jesús Sánchez (UCM). Timberlake Consulting S.L. and Universidad Internacional de Andalucía. November 2020.
- Machine learning with Stata 16 (Stata Specialization School 2020). Instructor: Achim Ahrens (ETH-Zurich). Timberlake Consulting S.L. and Universidad Internacional de Andalucía. October 2020.
- Money supply for a utility cryptocurrency. Instructor: Gonzalo Fernández de Córdoba (UMA). PhD. program in Economics, Business, Finance and Computer Science, Universidad de Huelva and Universidad Internacional de Andalucía. July 2020.
- Haciendo interpretable el aprendizaje automático. Algunos ejemplos. Instructor: Emilio J. Carrizosa (US). PhD. program in Economics, Business, Finance and Computer Science, Universidad de Huelva and Universidad Internacional de Andalucía. July 2020.
- Data management with Stata. Instructor: David Troncoso (US). PhD. program in Economics, Business, Finance and Computer Science, Universidad de Huelva and Universidad Internacional de Andalucía. November 2019.
- Machine learning and Gaussian processes: An introduction. Instructor: Teodoro Álamo (US). PhD. program in Economics, Business, Finance and Computer Science, Universidad de Huelva and Universidad Internacional de Andalucía. November 2019.

- Topics in Advanced Methods for Labour Economics: Decomposition methods in Labour Economics. Instructors: Paulo M.M. Rodrigues (BdP), Hugo Reis (BdP) and P. Raposo (UCL). XIII Jornadas de Economía Laboral, Huelva. June 2019.
- Introduction to ESDA and Spatial Econometrics using Stata. Instructor: Raúl Ramos (UB). Universidad Internacional de Andalucía. June 2018.
- Experiential Economics. Instructor: Giovanni Ponti (UA). PhD. program in Economics, Business, Finance and Computer Science, Universidad de Huelva and Universidad Internacional de Andalucía. May 2017.

## OTHERS

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Member of the organizing committee of the events:

- Specialization courses within the Cátedra Extenda of Universidad de Huelva, December 2019.
- XIII Labour Economics Meeting, Huelva, June 2019.
- XVIII Conference on International Economics, Huelva, June 2017.

## TEACHING

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### TEACHING EXPERIENCE

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Since. May 2024	<i>PhD Assistant Professor</i> Applied Economics (Statistics and Econometrics). Universidad de Málaga Current subjects: Statistics (Bachelor in Economics & in Tourism)
2023 – 2024	<i>Temporary Substitute Professor</i> Department of Economics. Universidad de Sevilla Subjects: Maths (Bachelor in Business) and Statistics (Bachelor in Economics)
2022 – 2024	<i>Professor</i> Faculty of Commerce and Management. Universidad Internacional de la Rioja Subjects: Descriptive statistics (Bachelor in Business, in Finance & in HHRR), World Economics (Bachelor in Business)
2017 – 2021	<i>Granted with FPU fellowship (18 credits)</i> Department of Economics. Universidad de Huelva Subjects: Monetary Macroeconomics, Macroeconomics, Microeconomics, Introduction to micro and macroeconomics, and mathematics (Bachelor in Business & in Finance)
2015 – 2016	<i>Temporary Substitute Professor (8,5 credits)</i> Department of Economics. Universidad de Huelva Subjects: Design and evaluation of labour projects (Bachelor in Industrial Relations), Spanish Economy (Bachelor in Business & in Finance), and Labour market, territory and strategies for social and labour insertion (Bachelor in Social Work)

## TEACHING INNOVATION PROJECTS

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2024 – 2025	<i>Diseño de una experiencia basada en el modelo flipped classroom para la enseñanza de técnicas avanzadas de análisis de datos</i> Principal researcher: Ana Rodriguez-Santiago Type of solicitation: University Funder: Universidad Internacional de Andalucía
2022 – 2023	<i>Generación de videos para programas de doctorado</i> Principal researcher: Mónica Carmona Type of solicitation: University Funder: Universidad de Huelva

## TEACHING COURSES

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- Cómo mejorar el clima emocional en las aulas universitarias. Vicerrectorado de Innovación y Empleabilidad, Universidad de Huelva. March 2022.
- M-learning: una herramienta para la mejora del proceso enseñanza-aprendizaje en Educación Superior. Universidad de Huelva. February 2022.
- Curso básico de docencia virtual. Vicerrectorado de Innovación y Empleabilidad, Universidad de Huelva. February 2022.
- Introducción a la comunicación y género y su aplicación al ámbito académico. Vicerrectorado de Innovación y Empleabilidad, Universidad de Huelva. October 2021.
- Videoconferencias desde Moodle ¿Cómo usar Zoom para el aprendizaje en línea? Vicerrectorado de Innovación y Empleabilidad, Comunicaciones e Infraestructuras, Universidad de Huelva. May 2020.
- Planning your class in English: Syllabus and resources. Vicerrectorado de Innovación y Empleabilidad, Universidad de Huelva. April 2019.
- Sistemas de comunicación web: Adobe Connect y otras soluciones. Vicerrectorado de Informática, Comunicaciones e Infraestructuras, Universidad de Huelva. January 2018.
- Gestión de archivos multimedia. Vicerrectorado de Informática, Comunicaciones e Infraestructuras, Universidad de Huelva. November 2017.

## SUPERVISION OF MASTER AND BACHELOR THESES

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2023 – 2024	<i>9 Business Plans (FeelEat; Centro formativo de metodología BIM; Consultoría de transformación digital para PYMES; Vehículos de alquiler en Tenerife; Boutique Hotel Arena Blanca; Destinos cautivadores; Mimic. Gafas impresas en 3D; Ecoruralia; Marketplace de productos ecológicos agrícolas en Andalucía)</i> Degree: Bachelor in Business Administration, UNIR.
2021 – 2022	<i>Análisis del comportamiento del gasto en estudios superiores en los hogares españoles.</i> Student: Blanco Pérez, Ana Degree: Bachelor in Business Administration, Universidad de Huelva.
2016 – 2017	<i>Aplicación de aprendizaje automático en dos casos de política española.</i> Student: Perea El Khalifi, David Degree: MSc. in Economics, Finance and Computer Science, Universidad de Huelva. Grade: 9 (Excellent)

## **CONTRIBUTIONS TO TEACHING CONFERENCES**

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- Feb. 2023      *Trabajos de fin de grado basados en datos*  
XIX Jornadas sobre Docencia de Economía Aplicada, Asociación Libre de Economía, Madrid
- Feb. 2022      *El uso de métodos numéricos en la enseñanza de macroeconomía aplicada*  
XVIII Jornadas sobre Docencia de Economía Aplicada, Asociación Libre de Economía, Madrid
- Feb. 2018      *Evaluando estrategias de enseñanza alternativas: el uso de programación y métodos numéricos en macroeconomía aplicada*  
XIV Jornadas sobre Docencia de Economía Aplicada, Asociación Libre de Economía, Madrid.
- Feb. 2018      Poster of supervised Master's Thesis (Student David Perea):  
*Aplicación de aprendizaje automático en dos casos de política española*  
XIV Jornadas sobre Docencia de Economía Aplicada, Madrid
- Feb. 2017      Poster of Degree's final work:  
*¿Adelanta el turismo al crecimiento económico de las CC.AA.?*  
XIII Jornadas sobre Docencia de Economía Aplicada, Madrid

## **TEACHING AWARDS AND MERITS**

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- 2018      *Mención especial a la Innovación Docente.* Evaluando estrategias de enseñanza alternativas: el uso de programación y métodos numéricos en macroeconomía aplicada.  
XIV Jornadas sobre Docencia de Economía Aplicada.  
Asociación Libre de Economía. Madrid.

## **MANAGEMENT POSITIONS**

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- Since 2024      Coordinator of the MSc. In Economics, Finance and Computer Science, Universidad Internacional de Andalucía
- Since 2024      Member of the Board of the Spanish Association of Labour Economics (AEET, Asociación Española de Economía del Trabajo)
- 2017 – 2022      Member of the Commission for the Guarantee of Quality, PhD. in Economics, Business, Finance and Computer Science. Universidad de Huelva and Universidad Internacional de Andalucía
- 2017 – 2021      Member of the Commission for the Guarantee of Quality, Faculty of Business Administration and Tourism. Universidad de Huelva
- 2017 – 2021      Member of the Commission for the Guarantee of Quality, MSc. in Economics, Finance and Computer Science. Universidad de Huelva and Universidad Internacional de Andalucía
- 2017 – 2021      Member of the Board of the Department of Economics. Universidad de Huelva

## **PERSONAL SKILLS**

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### **LANGUAGES**

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Spanish: Native.

English: Fluent. C1 level certificated by the British Council.

German: Basic.

### **ECONOMETRIC SOFTWARE**

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- Proficient in Matlab, Gauss and Stata.
- Intermediate in E-views, R and Gretl.
- Intermediate in database language SQL (Oracle) and programming language Python.

### **REFERENCES**

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Dr. Máximo Camacho, Universidad de Murcia, [mcamacho@um.es](mailto:mcamacho@um.es)

Dr. Emilio Congregado, Universidad de Huelva, [congregado@uhu.es](mailto:congregado@uhu.es)

Dr. Concepción Román, Universidad de Huelva, [concepcion.roman@dege.uhu.es](mailto:concepcion.roman@dege.uhu.es)