



# Asunción Jiménez-Cordero

## *Curriculum Vitae*

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### Personal Information

Name JIMÉNEZ CORDERO, M. Asunción  
Position Senior Lecturer (Profesora Permanente Laboral) at the Department of Mathematical Analysis, Statistics and Operations Research and Applied Mathematics. Area of research: Statistics and Operations Research. University of Málaga.  
Address Ada Byron Research Building, Calle Arquitecto Francisco Peñalosa, 18, 29010, Málaga, Spain.  
Telephone +34 951 95 29 25 / +34 951 95 34 21 / +34 952 13 18 96  
E-mail [asuncionjc@uma.es](mailto:asuncionjc@uma.es)  
Nationality Spanish  
ResearchGate [https://www.researchgate.net/profile/Asuncion\\_Jimenez-Cordero](https://www.researchgate.net/profile/Asuncion_Jimenez-Cordero)  
Google Scholar <https://scholar.google.es/citations?user=JegcEYwAAAAJ&hl=es&oi=ao>  
Github <https://github.com/asuncionjc>  
ORCID <https://orcid.org/0000-0001-6551-692X>

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## Education

- Feb 2019 **Ph.D. in Mathematics**, *University of Seville*, International Doctorate Mention.  
Title: Classification and Regression with Functional Data. A Mathematical Optimization Approach.  
Calification: Highest distinction (Suma Cum laude).  
Supervisors: Dr. Rafael Blanquero and Dr. Emilio Carrizosa.  
Outstanding Doctoral Thesis Award.
- Oct 2013 – **Master degree in Advanced Mathematics**, *University of Seville*, GPA – 9.25.  
Jul 2014
- Oct 2009 – **Bachelor in Mathematics (240 ECTS Credits)**, *University of Seville*, GPA– 8.8.  
Jul 2013 Degree Thesis with honours.  
Best Student in Bachelor in Mathematics

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## Fellowships, Contracts and Positions

- Since Oct 2024 **Senior Lecturer (Profesora Permanente Laboral)**, *Department of Mathematical Analysis, Statistics and Operations Research and Applied Mathematics*, Area of research: Statistics and Operations Research, University of Málaga.
- Jan 2022 – **Lecturer (Assistant Professor)**, *Department of Mathematical Analysis, Statistics and Operations Research and Applied Mathematics*, Area of research: Statistics and Operations Research, University of Málaga.  
Oct 2024
- Dec 2021 **Postdoctoral position Andalusia Regional Government (Junta de Andalucía)**.  
Renounce to take the lecturer position at the University of Málaga.
- Apr 2019 – **Post-doctoral research contract in the ERC project “Advanced Analytics to Empower the Small Flexible Consumers of Electricity (FlexAnalytics) (8.06.UE/33.8039)”**, *OASYS group (University of Málaga)*.  
Jan 2022
- Jul 2017 **Grant devoted to the Research Stays in Foreign Universities (Ayudas para Estancias Breves en Otras Universidades)**, *Research Office of the University of Seville (Vicerrectorado de Investigación de la Universidad de Sevilla)*.
- Mar 2017 **Grant of Project COST Action TD 1207**, *Optimization Training School Novi Sad Faculty of Technical Sciences*.
- Jun 2016 **Grant devoted to the International Movements of the Research Staff (Ayudas para Movilidad Internacional del Personal dedicado a la Investigación)**, *Research Office of the University of Seville (Vicerrectorado de Investigación de la Universidad de Sevilla)*.
- Jan 2016 – **Participation as researcher in the Project contract “Desarrollo de un algoritmo para la optimización de rutas de reparto”**, *FIUS (University of Seville)*.  
Apr 2016
- Sep 2015– **Spanish Ministry of Education PhD Fellowship (Formación del Profesorado Universitario - FPU)** , *Mathematical Research Institute of the University of Seville (IMUS) and Department of Statistics and Operations Research (University of Seville)*.  
Dec 2018
- Mar 2015 **Grant of Project COST Action TD 1207**, *Optimization Training School Tilburg University*.

- Jan 2015 – **Cámara Foundation PhD Fellowship**, *Mathematical Research Institute of the University of Seville (IMUS) and Department of Statistics and Operations Research (University of Seville)*.  
 Aug 2015 Renounce to take Spanish Ministry of Education, Science and Sports Grant
- Jan 2015 – **Grant of Project COST Action TD 1207**, *Stay in Budapest University of Technology and Economics (Hungary) with the Prof. Boglárka G. Tóth*.  
 Feb 2015
- Dec 2014 – **Participation as researcher in the project “Identificación de Modelos en Procesos con Reacción Química. Fase II”**, *(REPSOL-FIUS-IMUS)*.  
 Dec 2015
- Oct 2014 – **Research grant for PhD students (Beca de Iniciación a la Investigación Modalidad B)**, *Mathematical Research Institute of the University of Seville (IMUS)*.  
 Dec 2014
- Dec 2013 – **Project contract “Identificación de Modelos en Procesos con Reacción Química”**, *REPSOL - FIUS - IMUS*.  
 Aug 2014
- Oct 2013 – **Research grant for graduate students (Beca de Iniciación a la Investigación Modalidad A)**, *Mathematical Research Institute of the University of Seville (IMUS)*.  
 Nov 2013
- Oct 2012 – **Collaborator (alumna interna)**, *Department of Statistics and Operations Research, University of Seville*.  
 Jun 2013
- Oct 2012 – **Research collaboration grant**, *Spanish Ministry of Education, Science and Sports*.  
 Jun 2013
- Oct 2011 – **Collaborator (alumna interna)**, *Department of Mathematical Analysis, University of Seville*.  
 Jun 2012

## Publications

- [1] **Learning-Assisted Optimization for Transmission Switching**, *Salvador Pineda, Juan Miguel Morales, Asunción Jiménez-Cordero*, TOP - Transactions on Operations Research, 2024, <https://doi.org/10.1007/s11750-024-00672-0>.  
 Impact Factor: 1.5. Position: 72 out 106. Rank: Q3. Area: Operations Research and Management Science. Source: JCR 2023.
- [2] **Cost-driven Screening of Network Constraints for the Unit Commitment Problem**, *Álvaro Porras-Cabrera, Salvador Pineda, Juan Miguel Morales, Asunción Jiménez-Cordero*, IEEE Transactions on Power Systems, 2023, 38(1), 42-51, doi: 10.1109/TPWRS.2022.3160016.  
 Impact Factor: 6.5. Position: 40 out of 352. Rank: Q1. Area: Engineering, Electrical and Electronic. Source: JCR 2023.
- [3] **Warm-starting constraint generation for mixed-integer optimization: A Machine Learning approach**, *Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda*, Knowledge-Based Systems, 2022, 253, 109570, doi: 10.1016/j.knosys.2022.109570.  
 Impact Factor: 8.8. Position: 19 out 145. Rank: Q1. Area: Computer Science, Artificial Intelligence. Source: JCR 2022.

- [4] **A novel embedded min-max approach for feature selection in nonlinear Support Vector Machine classification**, *Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda*, European Journal of Operational Research, 2021, 293(1), 24-35, doi: 10.1016/j.ejor.2020.12.009.  
Impact Factor: 5.334. Position: 15 out of 84. Rank: Q1. Area: Operations Research and Management Science. Source: JCR 2021.
- [5] **Automatic Feature Scaling and Selection for Support Vector Machine Classification with Functional Data**, *Asunción Jiménez-Cordero, Sebastián Maldonado*, Applied Intelligence, 2021, 51, 161-184, doi: 10.1007/s10489-020-01765-6.  
Impact Factor: 5.086. Position: 35 out of 139. Rank: Q2 (T1). Area: Computer Science, Artificial Intelligence. Source: JCR 2020.
- [6] **Selection of Time Instants and Intervals with Support Vector Regression for Multivariate Functional Data**, *Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Belén Martín-Barragán*, Computers and Operations Research, 2020, 123, 105050, doi: 10.1016/j.cor.2020.105050.  
Impact Factor: 4.008. Position: 25 out of 84. Rank: Q2 (T1). Area: Operations Research and Management Science. Source: JCR 2020.
- [7] **Data-Driven Screening of Network Constraints for Unit Commitment**, *Salvador Pineda, Juan Miguel Morales, Asunción Jiménez-Cordero*, IEEE Transactions on Power Systems, 2020, 35(5), 3695 - 3705, doi: 10.1109/TPWRS.2020.2980212.  
Impact Factor: 6.663. Position: 26 out of 273. Rank: Q1 (D1). Area: Engineering, Electrical and Electronic. Source: JCR 2020.
- [8] **Variable Selection in Classification for Multivariate Functional Data**, *Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Belén Martín-Barragán*, Information Sciences, 2019, 481, 445-462, doi: 10.1016/j.ins.2018.12.060.  
Impact Factor: 5.91. Position: 9 out of 156. Rank: Q1 (D1). Area: Computer Science, Information Systems. Source: JCR 2019.
- [9] **Functional-bandwidth Kernel for SVM with Functional Data: an Alternating Optimization Algorithm**, *Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Belén Martín-Barragán*, European Journal of Operational Research, 2019, 275(1), 195-207, doi: 10.1016/j.ejor.2018.11.024.  
Impact Factor: 4.213. Position: 14 out of 83. Rank: Q1. Area: Operations Research and Management Science. Source: JCR 2019.
- [10] **A Global Optimization Method for Model Selection in Chemical Reactions Networks**, *Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, José Francisco Rodríguez*, Computers & Chemical Engineering, 93, 2016, 52-62, doi: 10.1016/j.compchemeng.2016.05.016.  
Impact Factor: 3.024. Position: 20 out of 105. Rank: Q1. Area: Computer Science and Interdisciplinary Applications. Source: JCR 2016.
- [11] **On Extreme Concentrations in Chemical Reaction Networks with Incomplete Measurements**, *Rafael Blanquero, Emilio Carrizosa, Oana Chis, Noemí Esteban, Asunción Jiménez-Cordero, José Francisco Rodríguez, M. Remedios Sillero-Denamiel*, Industrial & Engineering Chemistry Research, 2016, 55 (44), 11417-11430, doi: 10.1021/acs.iecr.6b00714.  
Impact Factor: 2.843. Position: 34 out of 135. Rank: Q2 (T1). Area: Engineering, Chemical. Source: JCR 2016.

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## Working Papers

- [1] **A Variable Neighborhood Search approach for solving the Rank Pricing Problem**, Asunción Jiménez-Cordero, Salvador Pineda, Juan Miguel Morales, Submitted, 2024.

Available at [https://www.researchgate.net/publication/380895098\\_A\\_Variable\\_Neighborhood\\_Search\\_approach\\_for\\_solving\\_the\\_Rank\\_Pricing\\_Problem](https://www.researchgate.net/publication/380895098_A_Variable_Neighborhood_Search_approach_for_solving_the_Rank_Pricing_Problem)

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## Awards, Recognitions and Qualifications

- Sep 2024 **Qualification Associate Professor (Acreditación Profesor Titular de Universidad)**, National Agency of Quality Evaluation and Accreditation (Agencia Nacional de Evaluación de la Calidad y Acreditación - ANECA).
- Nov 2021 **YoungWomen4OR Award**, EURO - The Association of European Operational Research Societies, WISDOM - Women in Science Doing Operational Research and Management.
- Jul 2021 **Outstanding Doctoral Thesis Award**, PhD in Mathematics, University of Seville.
- Dec 2020 **Qualification Senior Lecturer (Acreditación Contratado Doctor)**, National Agency of Quality Evaluation and Accreditation (Agencia Nacional de Evaluación de la Calidad y Acreditación - ANECA).
- Oct 2019 **Qualification Lecturer (Acreditación Ayudante Doctor)**, National Agency of Quality Evaluation and Accreditation (Agencia Nacional de Evaluación de la Calidad y Acreditación - ANECA).
- Mar 2018 **Elsevier Reviewer Recognition**, Association of European Operational Research Societies (EURO) and The International Federation of Operational Research Societies (IFORS).
- Oct 2014 **Extraordinary End-of-bachelor Award**, University of Seville.

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## Peer-Review

- Oct 2024 **Reviewer Computers and Operations Research (CAOR)**.
- Oct 2024 **Reviewer Applied Energy (APEN)**.
- Feb 2024 **Reviewer Information Sciences (IS)**.
- Sep 2022 **Reviewer European Journal of Operational Research (EJOR)**.
- Jul 2022 **Reviewer Computers and Operations Research (CAOR)**.
- Jul 2022 **Reviewer European Journal of Operational Research (EJOR)**.
- Jul 2021 **Reviewer European Journal of Operational Research (EJOR)**.
- Jun 2021 **Reviewer Artificial Intelligence Review**.
- Apr 2021 **Reviewer European Journal of Operational Research (EJOR)**.
- Jul 2020 **Reviewer IEEE Transactions on Power Systems**.
- Jul 2020 **Reviewer Advances in Data Analysis and Classification**.
- Apr 2020 **Reviewer IISE Transactions**.
- May 2019 **Reviewer European Journal of Operational Research (EJOR)**, (twice).
- Mar 2018 **Reviewer European Journal of Operational Research (EJOR)**.

## Stays

- Jun 2018 **Copenhagen Business School**, *Copenhagen, Denmark*, Prof. Dolores Romero Morales, 1 week.
- Sep 2017 **University of Chile (Universidad de Chile)**, *Santiago, Chile*, Prof. Richard Weber, 3 months.
- Oct 2016 **University of Edinburgh. Business School**, *Edinburgh, Scotland*, Prof. Belén Martín-Barragán, 1 week.
- Jan 2015 **Budapest University of Technology and Economics**, *Budapest, Hungary*, Prof. Boglárka G. Tóth, 1 month.

## Contribution to Congresses and Talks

- Sep 2024 **On solving the Rank Pricing Problem using a VNS-based approach**, *Mathematical Optimization and Statistics for Explainable and Fair Machine Learning (Edition 2024)*, Asunción Jiménez-Cordero, Salvador Pineda and Juan Miguel Morales, Seville, Spain.  
Invited talk
- Jul 2024 **A data-based approach for solving the Rank Pricing Problem**, *The 33rd European Conference on Operational Research (EURO 2024)*, Asunción Jiménez-Cordero, Salvador Pineda and Juan Miguel Morales, Copenhagen, Denmark.  
Invited talk
- Jul 2024 **Learning-Assisted Optimization for Transmission Switching**, *The 33rd European Conference on Operational Research (EURO 2024)*, Salvador Pineda, Juan Miguel Morales and Asunción Jiménez-Cordero, Copenhagen, Denmark.  
Invited talk
- Nov 2023 **Machine-Learning-aided Optimal Transmission Switching**, *XL National Conference of Statistics and Operations Research (XL Congreso Nacional de Estadística e Investigación Operativa, SEIO 2023)*, Salvador Pineda, Juan Miguel Morales and Asunción Jiménez-Cordero, Elche, Spain.  
Invited talk
- Jun 2023 **A novel machine learning approach for solving optimal transmission switching**, *3rd EUROYoung Workshop*, Salvador Pineda, Juan Miguel Morales and Asunción Jiménez-Cordero, Cergy, Paris, France.  
Invited talk
- Sep 2022 **Solving mixed-integer programs with warm-starting constraint generation methods via machine learning tools**, *3rd Spanish Young Statisticians and Operational Researchers Meeting (SYSORM)*, Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda, Elche, Spain.  
Invited talk
- Jul 2022 **Feature Selection in (Functional) SVM via Bilevel Optimization**, *The 32nd European Conference on Operational Research (EURO 2022)*, Asunción Jiménez-Cordero, Espoo, Finland.  
Invited talk

- Jul 2022 **A novel machine-learning-aided approach for warm-starting constraint generation methods in MILPs**, *The 32nd European Conference on Operational Research (EURO 2022)*, Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda, Espoo, Finland.  
Invited talk
- Jul 2022 **Data-driven screening of network constraints for Unit Commitment**, *2022 IEEE Power & Energy Society General Meeting (GM)*, Salvador Pineda, Juan Miguel Morales, Asunción Jiménez-Cordero, Denver, USA.  
Invited talk
- Jun 2022 **On warm-starting constraint generation methods via machine learning tools for solving mixed-integer programs**, *XXXIX National Conference of Statistics and Operations Research (XXXIX Congreso Nacional de Estadística e Investigación Operativa, SEIO 2022)*, Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda, Granada, Spain.  
Invited talk
- May 2022 **On selecting features in (functional) SVM with bilevel optimization tools**, *WISDOM Webinar on Bilevel Optimization*, Asunción Jiménez-Cordero, Online.  
Invited talk
- Dec 2021 **Classifying (functional) data from a mathematical optimization perspective. Application to real-life problems**, *Outstanding Doctoral Thesis Award Seminar (IMUS)*, Asunción Jiménez-Cordero, Seville, Spain.  
Invited talk
- Nov 2021 **An offline-online strategy to improve MILP performance via Machine Learning tools**, *Workshop "New Bridges between Mathematics and Data Science"*, Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda, Valladolid, Spain.  
Invited talk
- Oct 2021 **Machine learning-aided optimization applied to mixed integer linear programming**, *Seminar "Operations Research"*, Antonio Elías-Fernández, Asunción Jiménez-Cordero, Málaga, Spain.  
Talk
- Jul 2021 **Improving the performance of machine learning in the solution of MILPs**, *The 31st European Conference on Operational Research (EURO 2021)*, Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda, Online.  
Invited talk
- Jul 2021 **Cost-aware constraint screening for the unit commitment problem**, *The 31st European Conference on Operational Research (EURO 2021)*, Álvaro Porras Cabrera, Salvador Pineda, Juan Miguel Morales, Asunción Jiménez-Cordero, Online.  
Invited talk
- Jul 2021 **Data-driven screening of network constraints for Unit Commitment**, *IEEE PowerTech Conference*, Salvador Pineda, Juan Miguel Morales, Asunción Jiménez-Cordero, Online.  
Talk

- Jun 2021 **A novel embedded min-max approach for feature selection in nonlinear Support Vector Machine classification**, *SEIO 2021*, Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda, Online.  
Talk
- Feb 2021 **Feature selection in nonlinear SVM using a novel minmax approach**, *Young Online Seminar Series Machine Learning NeEDS Mathematical Optimization*, Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda, Online.  
Talk
- Nov 2020 **Interpretable Learning in Power Systems Operations**, *Inform's 2020 Annual Meeting*, Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda, Online.  
Invited talk
- Nov 2020 **Data-driven Screening of Network Constraints for Unit Commitment**, *Inform's 2020 Annual Meeting*, Salvador Pineda, Juan Miguel Morales, Asunción Jiménez-Cordero, Online.  
Talk
- Oct 2020 **A novel min-max approach to select features in nonlinear SVM classification**, *Autumn School on Bilevel Optimization 2020*, Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda, Online.  
Talk
- Jan 2020 **A min-max approach to feature selection for nonlinear SVM classification**, *V Conference of Young Researchers RSME 2020*, Asunción Jiménez-Cordero, Juan Miguel Morales, Salvador Pineda, Castellón, Spain.  
Invited talk
- Sept 2018 **On Variable Selection in Supervised Learning for Functional Data**, *Workshop on Data Science*, Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Sebastián Maldonado, Belén Martín-Barragán, Seville, Spain.  
Talk
- Jul 2018 **Feature Selection with SVM and SVR for Functional Data**, *16th Workshop on Advances in Continuous Optimization (EUROPT 2018)*, Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Sebastián Maldonado, Belén Martín-Barragán, Almería, Spain.  
Talk
- Jul 2018 **Some improvements of SVM and SVR for Functional Data**, *29th European Conference on Operational Research (EURO 2018)*, Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Belén Martín-Barragán, Valencia, Spain.  
Invited talk
- Jun 2018 **Mejoras en SVM y SVR con datos funcionales**, *XXXVII Congreso Nacional de Estadística e Investigación Operativa*, Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Belén Martín-Barragán, Oviedo, Spain.  
Talk



- Nov 2017 **Improving SVM-classification with Functional Data**, *XII Chilean Congress of Operational Research (XII Congreso Chileno de Investigación Operativa - Optima 2017)*, Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Belén Martín-Barragán, Viña del Mar, Chile.  
Talk
- Sep 2017 **On SVM-classification with Functional Data**, *XVI Spanish Biometric Conference (CEB 2017)*, Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Belén Martín-Barragán, Seville, Spain.  
Talk
- Jul 2017 **On Support Vector Machines for Functional Data**, *15th EUROPT Workshop on Advances in Continuous Optimization*, Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Belén Martín-Barragán, Montreal, Canada.  
Talk
- Jul 2017 **Some improvements in the SVM-Classification with Functional Data**, *Summer School: Optimization, Big Data and Applications*, Rafael Blanquero, Emilio Carrizosa, Asunción Jiménez-Cordero, Belén Martín-Barragán, Veroli, Italy.  
Talk
- Jan 2017 **Model Selection and Missing Data in Processes Governed by ODEs**, *Workshop Recent Advances in PDEs: Analysis, Numerics and Control*, Rafael Blanquero, Emilio Carrizosa, Oana Chís, Noemí Esteban, Asunción Jiménez Cordero, José Francisco Rodríguez, M. Remedios Sillero Denamiel, Seville, Spain.  
Poster
- Jan 2017 **Design of an APP-based System for VRP with Time Windows**, *Avances en problemas de logística y problemas de rutas. Modelos con uno o varios objetivos*, Rafael Blanquero, Emilio Carrizosa, M. Asunción Jiménez Cordero, Seville, Spain.  
Talk
- Sep 2016 **Model Selection and Missing Data in Chemical Reactions Networks. A Global Optimization Approach.**, *XXXVI Congreso Nacional de Estadística e Investigación Operativa (SEIO)*, Rafael Blanquero, Emilio Carrizosa, Oana Chis, Noemí Esteban, M. Asunción Jiménez Cordero, José Francisco Rodríguez, M. Remedios Sillero Denamiel, Toledo, Spain.  
Talk
- July 2016 **A MINLP to Parameters Inference in Chemical Reactions Networks**, *The 28th European Conference on Operational Research (EURO)*, Rafael Blanquero, Emilio Carrizosa, José Luis Ferrín, M. Asunción Jiménez Cordero, José Francisco Rodríguez, Jerónimo Rodríguez, Boglárka G. Tóth, Poznan, Poland.  
Talk
- July 2016 **Global Optimization Tools to Discriminate Models in Chemical Reaction Networks**, *The 14th Workshop on Advances in Continuous Optimization (EUROPT)*, Rafael Blanquero, Emilio Carrizosa, M. Asunción Jiménez Cordero, José Francisco Rodríguez, Warsaw, Poland.  
Talk

- June 2016 **Automatic Identification of Kinetic Models in Industrial Reaction Systems**, *The 19th European Conference on Mathematics for Industry (ECMI 2016)*, Gabriel Álvarez, Marta Benítez, Alfredo Bermúdez, Rafael Blanquero, Emilio Carrizosa, Oana Chis, Oscar Crego, Manuel Cremades, Noemí Esteban, José Luis Ferrín, M. Asunción Jiménez Cordero, Francisco Pena, Diego Rodríguez, Jerónimo Rodríguez, José Francisco Rodríguez, M. Remedios Sillero Denamiel, Santiago de Compostela, Spain.  
Talk
- June 2016 **Parameters Inference in Chemical Reactions Networks. Model Selection and Missing Data**, *The 19th European Conference on Mathematics for Industry (ECMI 2016)*, Rafael Blanquero, Emilio Carrizosa, Oana Chis, Noemí Esteban, M. Asunción Jiménez Cordero, José Francisco Rodríguez, M. Remedios Sillero Denamiel, Santiago de Compostela, Spain.  
Talk
- Nov 2015 **A Dispersion Model in ODEs**, *VI International Workshop on Locational Analysis and Related Problems*, Rafael Blanquero, Emilio Carrizosa, M. Asunción Jiménez Cordero, Boglárka G. Tóth, Barcelona, Spain.  
Talk
- Sep 2015 **Global Optimization for Model Discrimination with ODEs**, *CORAL (Combinatorial Optimization, Routing and Location)*, Rafael Blanquero, Emilio Carrizosa, M. Asunción Jiménez Cordero, Boglárka G. Tóth, Salamanca, Spain.  
Talk
- Jan 2015 **Global Optimization Methods for Inferring Stoichiometric Matrices in Chemical Reaction Networks**, *Institute of Informatics at the University of Szeged*, Rafael Blanquero, Emilio Carrizosa, M. Asunción Jiménez Cordero, Boglárka G. Tóth, Szeged, Hungary.  
Talk
- Nov 2014 **An Optimization Problem in Chemical Reaction Networks**, *PhD Seminar of Mathematical Research Institute of the University of Seville (IMUS)*, Rafael Blanquero, Emilio Carrizosa, M. Asunción Jiménez Cordero, Boglárka G. Tóth, Seville, Spain.  
Talk
- Nov 2014 **MINLP Problems in Inference of Chemical Reaction Networks**, *Informatics Annual Meeting 2014*, Rafael Blanquero, Emilio Carrizosa, M. Asunción Jiménez Cordero, Boglárka G. Tóth, San Francisco, USA.  
Talk
- Sep 2014 **Global Optimization in Inference of Chemical Reaction Networks**, *XII International Workshop on Global Optimization 2014*, Rafael Blanquero, Emilio Carrizosa, M. Asunción Jiménez Cordero, Boglárka G. Tóth, Málaga, Spain.  
Talk

- Jul 2014 **Computing Stoichiometric Matrices in Chemical Reactions. An MINLP Problem**, *20th Conference of the International Federation of Operational Research Societies*, Rafael Blanquero, Emilio Carrizosa, M. Asunción Jiménez Cordero, Boglárka G. Tóth, Barcelona, Spain.  
Talk
- May 2014 **Inferencia en Reacciones Químicas Mediante Métodos de Optimización Entera**, *VI Congreso Internacional en Formación y Modelización en Ciencias Básicas*, Rafael Blanquero, Emilio Carrizosa, M. Asunción Jiménez Cordero, Boglárka G. Tóth, Medellín, Colombia.  
Talk

## Courses and Congresses

- Sep 2024 **Mathematical Optimization and Statistics for Explainable and Fair Machine Learning (Edition 2024)**, *Seville, Spain*.
- Jul 2024 **The 33rd European Conference on Operational Research (EURO 2024)**, *Copenhagen, Denmark*.
- Nov 2023 **XL National Conference of Statistics and Operations Research (XL Congreso Nacional de Estadística e Investigación Operativa, SEIO 2023)**, *Elche, Spain*.
- Jun 2023 **3rd EUROYoung Workshop**, *Cergy, Paris, France*.
- Nov 2022 **Workshop on Quasi-Newton Methods**, *Edinburgh, United Kingdom*, (Online attendance).
- Sep 2022 **The FlexAnalytics Symposium on Data-driven Decision Making via Mathematical Optimization and Statistics**, *Málaga, Spain*.
- Sep 2022 **3rd Spanish Young Statisticians and Operational Researchers Meeting (SYSORM)**, *Elche, Spain*.
- Jul 2022 **The 32nd European Conference on Operational Research (EURO 2022)**, *Espoo, Finland*.
- Jun 2022 **XXXIX National Conference in Statistics and Operations Research (XXXIX Congreso Nacional de Estadística e Investigación Operativa, SEIO 2022)**, *Granada, Spain*.
- Nov 2021 **Workshop “New Bridges between Mathematics and Data Science”**, *Valadolid, Spain*.
- Jul 2021 **31st European Conference on Operational Research (EURO 2021)**, *Online*.
- Jun 2021 **Spanish Conference of Statistics and Operations Research (SEIO 2021)**, *Online*.
- Jun 2021 **Spring School on MINLPs and Bilevel Problems 2021**, *Online*, Research group: Polyhedra and Combinatorial Optimization, Martin Schmidt and Yasmine Beck.
- Jun 2021 **High Performance Computing for IAMAT cluster**, *Online*, 16 hours.
- Dec 2020 **Georgia Tech Virtual Workshop on Energy Systems and Optimization**, *Online*.
- Nov 2020 **Informa 2020 Annual Meeting**, *Online*.
- Oct 2020 **Autumn School on Bilevel Optimization 2020**, *Online*.

- Jan 2020 **V Conference of Young Researchers RSME**, *Castellón, Spain.*
- Jun 2019 **Workshop Design and Simulation of Deep Neural Networks using Keras and Tensorflow in Python**, *University of Málaga, Catalin Stoean and Ruxandra Stoean, Málaga, Spain.*
- Sep 2018 **An Introduction to Arc Routing**, *Mathematical Research Institute of the University of Seville (IMUS), Gilbert Laporte, Seville, Spain.*
- Sep 2018 **Workshop on Data Science**, *Seville, Spain.*
- Jul 2018 **16th Workshop on Advances in Continuous Optimization (EUROPT 2018)**, *Almería, Spain.*
- Jul 2018 **29th European Conference on Operational Research (EURO 2018)**, *Valencia, Spain.*
- Jun 2018 **XXXVII Congreso Nacional de Estadística e Investigación Operativa (SEIO)**, *Oviedo, Spain.*
- May 2018 **Equilibrium Analysis for Hierarchical Stochastic Models and Applications**, *Mathematical Research Institute of the University of Seville (IMUS), Lina Mallozzi, Seville, Spain.*
- Mar 2018 **Version Control Systems for Mathematical Researchers**, *Mathematical Research Institute of the University of Seville (IMUS), Pedro V. Gómez Sánchez, Seville, Spain.*
- Sep 2017 **XII Chilean Congress of Operational Research (XII Congreso Chileno de Investigación Operativa - Optima 2017)**, *Viña del Mar, Chile.*
- Jul 2017 **Summer School: Optimization, Big Data and Applications**, *University of Florence, Veroli, Italy.*
- Apr 2017 **The complexity of simple modes - a study of worst and typical hard cases of the StQP**, *Mathematical Research Institute of the University of Seville (IMUS), Immanuel Bomze, Seville, Spain.*
- Jan 2017 **Workshop Recent Advances in PDEs: Analysis, Numerics and Control.**, *Mathematical Research Institute of the University of Seville (IMUS), Seville, Spain.*
- Jan 2017 **Avances en problemas de logística y problemas de rutas. Modelos con uno o varios objetivos**, *Mathematical Research Institute of the University of Seville (IMUS), Seville, Spain.*
- Dec 2016 **Doc Course Optimization**, *Mathematical Research Institute of the University of Seville (IMUS), Victor Blanco Izquierdo, Ángel Corberán Salvador, Alfredo Marín Pérez, Juan Francisco Monge Ivars, Miguel A. Pozo and Antonio Rodríguez Chía, Seville, Spain.*
- Nov 2016 **Análisis de Big Data: retos y oportunidades**, *Mathematical Research Institute of the University of Seville (IMUS), Daniel Peña Sánchez de Rivera, Seville, Spain.*
- Sep 2016 **XXXVI Congreso Nacional de Estadística e Investigación Operativa (SEIO)**, *Toledo, Spain.*
- Jul 2016 **The 28th European Conference on Operational Research (EURO)**, *Poznan, Poland.*

- Jul 2016 **The 14th Workshop on Advances in Continuous Optimization (EUROPT)**, Warsaw, Poland.
- Jun 2016 **The 19th European Conference on Mathematics for Industry (ECMI 2016)**, Santiago de Compostela, Spain.
- May 2016 **Máquinas de Vectores Soporte**, *Mathematical Research Institute of the University of Seville (IMUS)*, Luis González Abril, Seville, Spain.
- Dec 2015 **Workshop on Mathematical Technology transfer: CTA-IMUS-Math-in**, Seville, Spain.
- Dec 2015 **II Pre-Doc Course on Operations Research 2015 (2nd part)**, *Mathematical Research Institute of the University of Seville (IMUS)*, Alberto Muñoz García and Victor Blanco Izquierdo, Seville, Spain.
- Nov 2015 **VI International Workshop on Locational Analysis and Related Problems**, Barcelona, Spain.
- Oct 2015 **Técnicas Predictivas en Estadística: Aplicaciones en Kaggle**, *Mathematical Research Institute of the University of Seville (IMUS)*, José Antonio Guerrero Durán, Seville, Spain.
- Sep - Oct 2015 **CORAL (Combinatorial Optimization Routing and Location)**, Salamanca, Spain.
- Sep 2015 **Uncertainty in Discrete Location**, *Mathematical Research Institute of the University of Seville (IMUS)*, Elena Fernández, Seville, Spain.
- Jun 2015 **II Pre-Doc Course on Operations Research 2015**, *Mathematical Research Institute of the University of Seville (IMUS)*, Alfredo Marín, Dolores Romero Morales and Pepa Ramírez Cobo, Seville, Spain.
- May 2015 **IX Reunión del Grupo Español de Decisión Multicriterio**, *Grupo Español de Decisión Multicriterio*, Seville, Spain.
- Mar 2015 **MINO/COST Spring School Course on Mixed Integer Nonlinear Optimization and Applications**, *Tilburg University*, Tilburg, Netherlands.
- Nov 2014 **Cooperative Game Theoretic Models: Applications to railway systems and collection and disposal of urban solid waste**, *Mathematical Research Institute of the University of Seville (IMUS)*, Domenico Fragnelli, Seville, Spain.
- Oct - Nov 2014 **Doc Course Optimization**, *Mathematical Research Institute of the University of Seville (IMUS)*, Martine Labbé, Elena Fernández, Francisco Saldanha, and Jörg Kalcsics, Seville, Spain.
- Oct 2014 **International Workshop on Locational Analysis and Related Problems 2014**, *Spanish Location Network and Location Group GELOCA (SEIO) and Mathematical Research Institute of the University of Seville (IMUS)*, Seville, Spain.
- Oct 2014 **Network Design in Phylogenetics**, *Mathematical Research Institute of the University of Seville (IMUS)*, Martine Labbé, Seville, Spain.
- Sep 2014 **XII International Workshop on Global Optimization 2014**, *University of Málaga*, Málaga, Spain.
- Jul 2014 **Algebraic and Geometric Techniques in Optimization**, *Mathematical Research Institute of the University of Seville (IMUS)*, Jesús Antonio de Loera, Seville, Spain.

- Dec 2013 **Pre-Doc Course on Operations Research**, *Mathematical Research Institute of the University of Seville (IMUS)*, Dolores Romero Morales and Boglárka G. Tóth, Seville, Spain.
- Oct 2013 **Metaheurísticas**, *Mathematical Research Institute of the University of Seville (IMUS)*, José Andrés Moreno Pérez, Seville, Spain.
- Apr 2012 **Segunda Escuela Taller de Análisis Funcional y Aplicaciones**, *Red de Análisis Funcional y sus Aplicaciones*, La Manga del Mar Menor, Murcia, Spain.
- Mar 2012 **Competencias informacionales para alumnos internos de la Facultad de Matemáticas**, *Mathematics Faculty*, Seville, Spain.

## Participation in Research Projects

### As Principal Investigator

- May 2021 - *MLO-MILP: "Machine Learning-aided Optimization applied to Mixed Integer Linear Programming"*. Ref. B1-2020-15, 2021-2023, 4000 €. University of Málaga.

### As Member of the Research Team

- Since Sep 2021 *"Data-driven Optimization Under a Dynamic Context" (DYCON)* Ref.: PID2020-115460GB-I00, (1/09/2021 - 31/08/2024), 96.800 €. Spanish Ministry of Innovation and Science. Principal Investigators: Juan Miguel Morales González and Salvador Pineda Morente.
- Jun 2021 - *"Mathematical Optimization Methods for Decision Making using Contextual Information" (MOMIC)* Ref.: P20-00153, (23/06/2021 - 31/12/2022), 66.000 €. Council for Economic Transformation, Industry, Knowledge and Universities (Andalusia Regional Government). Principal Investigator: Juan Miguel Morales González.
- Apr 2019 - *FlexAnalytics: "Advanced analytics to empower the small flexible consumers of electricity"*. Ref. 0806250180, (1/02/2018 - 31/01/2023), 1.203.125 €. European Research Council Starting Grant. Principal Investigator: Juan Miguel Morales González.
- Apr 2019 - *"Mathematical Methods for Data-driven Power Systems" (PowerMath)* Ref. Sep 2021 ENE2017-83775-P, 2018-2021 (4 years), 52.030€ (+ FPI grant). Spanish Ministry of Economy, Industry and Competitiveness. Principal Investigator: Juan Miguel Morales González.
- Jan 2016 - *"Mathematical Optimization for Data Visualization and Decision Making"*. Ref. Jan 2020 MTM2015-65915-R. 2016 - 2020. Spanish Ministry of Economy, Industry and Competitiveness. Principal Investigators: Rafael Blanquero Bravo and Emilio Carrizosa Priego.
- Jun 2015 - *"Optimización Global. Nuevos Algoritmos y Aplicaciones"* Ref. P11-FQM-7603, Mar 2018 2015-2018. Junta de Andalucía. Principal Investigator: Emilio Carrizosa Priego.
- Jan 2015 - *"Mathematical Programming: Models, Methods and Applications"*, Ref. Dec 2015 MTM2012-36163-C06-03, 2015. Spanish Ministry of Economy, Industry and Competitiveness. Principal Investigator: Emilio Carrizosa Priego.

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## Organization of Conferences, Seminars and Courses

- Sep 2022 Chair of session. The 3rd Spanish Young Statisticians and Operational Researchers Meeting (SYSORM).
- Jul 2022 Chair of session: "Machine Learning and Mathematical Optimization: challenges and real-world applications". The 32nd European Conference on Operational Research (EURO 2022).
- Jul 2021 Chair of sessions "Machine Learning and Optimization: new challenges, applications and objectives (I and II)". 31st European Conference on Operational Research (EURO 2021)
- Mar 2018 Coorganizer of "Version Control Systems for Mathematical Researchers". Mathematical Research Institute of the University of Seville (IMUS). University of Seville. Seville, Spain
- Dec 2015 Coorganizer of "II Pre-Doc Course on Operations Research 2015 (2nd part)". Mathematical Research Institute of the University of Seville (IMUS). University of Seville. Seville, Spain
- Sep 2015 - Coorganizer of the "PhD Seminar". Mathematical Research Institute of the University  
Sep 2017 of Seville (IMUS). University of Seville. Seville, Spain
- Jun 2015 Coorganizer of "II Pre-Doc Course on Operations Research 2015". Mathematical Research Institute of the University of Seville (IMUS). University of Seville. Seville, Spain

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## Evaluation Committees

- Jul 2022 Secretary of the evaluation committee for the recruitment of a postdoctoral researcher in the OASYS Group.
- Jun 2022 Secretary of the evaluation committee for the recruitment of a postdoctoral researcher in the OASYS Group.
- Nov 2021 Secretary of the evaluation committee for the recruitment of a postdoctoral researcher in the OASYS Group.
- Oct 2020 Secretary of the evaluation committee for the recruitment of a research assistant in the OASYS Group.
- Sep 2020 Secretary of the evaluation committee for the recruitment of a postdoctoral researcher in the OASYS Group.
- Mar 2020 Secretary of the evaluation committee for the recruitment of a technic in the OASYS Group.

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## Membership of Societies and Groups

- Since Nov 2019 Member of the research group TEP - 967 of the University of Málaga
- Since Feb 2018 Member of the Spanish Society of Statistics and Operations Research (SEIO)
- Jul 2014 - Member of the research group FQM - 329 of the University of Seville  
May 2019

## Other Training Courses

- Jun 2024 **Accreditation Workshop: Science (Taller sobre acreditación: ciencias)**, *University of Málaga*, Online, 2 hours.
- Apr 2024 **New law on universities, regulatory challenges in the promotion of internationalization (Nueva ley de universidades, retos regulatorios en la promoción de la internacionalización)**, *University of Málaga*, Online, 10 hours.
- Apr 2024 **Stress management techniques. Breathing and mindfulness (Técnicas de gestión del estrés. Respiración y mindfulness)**, *University of Málaga*, Online, 1.5 hours.
- Jan 2024 **Effective communication for conflict management (Comunicación eficaz para la gestión de conflictos)**, *University of Málaga*, Online, 1.5 hours.
- Oct 2023 **Workshop on APC (Article Process Charges) management (Taller sobre Gestión de APC (Article Process Charges))**, *University of Málaga*, Online, 1.5 hours.
- Oct 2023 **Vancouver Standard - Workshop for the Elaboration of Citations and Bibliographical References (Norma Vancouver - Taller para la Elaboración de Citas y Referencias Bibliográficas)**, *University of Málaga*, Online, 1.5 hours.
- Apr 2023 **Formative Evaluation in Higher Education (Evaluación Formativa en Educación Superior)**, *University of Málaga*, Málaga, Spain, 20 hours.
- Apr 2023 **Gender Equality as a University Principle: Towards the I+ Label (La Igualdad de Género como Principio Universitario: hacia el Distintivo I+)**, *University of Málaga*, Málaga, Spain, 15 hours.
- Nov 2022 **APA Standard - Workshop for the Elaboration of Citations and Bibliographical References (Norma APA - Taller para la Elaboración de Citas y Referencias Bibliográficas)**, *University of Málaga*, Online, 1.5 hours.
- Oct 2022 **Workshop on Visibility of Scientific Production (Taller sobre Visibilidad de la Producción Científica)**, *University of Málaga*, Online, 1.5 hours.
- Oct 2022 **Workshop on Open Research Data (Taller sobre Datos Abiertos de Investigación)**, *University of Málaga*, Online, 1.5 hours.
- Feb 2022 **Workshop on Creating a Research Data Management Plan (Taller sobre Creación de un Plan de Gestión de Datos de Investigación)**, *University of Málaga*, Online, 2.5 hours.
- Abr 2021 **Open Science Global Mini Symposium**, *Imfahe Foundation and the Doctoral school of the University of Valladolid*, Online.
- April 2020 **Citation Booster: Enhancing the reach, readership and visibility of your publication**, *Charlesworth Author Services*, Online.



## Teaching Experience

- Feb 2024 - **Fundaments of Probability and Statistics (Fundamentos de Probabilidad y Estadística)**, *1st year Bachelor in Mathematics - 2nd year Bachelor in Mathematics and Computer Science - 2nd year Bachelor in Mathematics and Telecommunications Engineering*, Sciences Faculty, University of Málaga.  
Jun 2024  
Subject coordinator  
6 ECTS Credits  
Theory and Practice
- Sep 2023 - **Operations Research (Investigación Operativa)**, *4th year Bachelor in Mathematics*, Sciences Faculty, University of Málaga.  
Jan 2024  
Subject coordinator  
6 ECTS Credits  
Theory and Practice
- Feb 2023 - **Introduction to Probability and Statistics (Introducción a la Probabilidad y a la Estadística)**, *1st year Bachelor in Mathematics - 2nd year Bachelor in Mathematics and Computer Science - 2nd year Bachelor in Mathematics and Telecommunications Engineering*, Sciences Faculty, University of Málaga.  
Jun 2023  
Subject coordinator  
6 ECTS Credits  
Theory and Practice
- Sep 2022 - **Operations Research (Investigación Operativa)**, *4th year Bachelor in Mathematics*, Sciences Faculty, University of Málaga.  
Jan 2023  
Subject coordinator  
6 ECTS Credits  
Theory and Practice
- Feb 2022 - **Introduction to Probability and Statistics (Introducción a la Probabilidad y a la Estadística)**, *1st year Bachelor in Mathematics - 2nd year Bachelor in Mathematics and Computer Science - 2nd year Bachelor in Mathematics and Telecommunications Engineering*, Sciences Faculty, University of Málaga.  
Jun 2022  
Subject coordinator  
6 ECTS Credits  
Theory and Practice
- Oct 2018 - **Statistics (Estadística)**, *Bachelor of Labour Relations and Human Resources (Grado en Relaciones Laborales y Recursos Humanos)*, Labour Sciences Faculty, University of Seville.  
Feb 2019  
3 ECTS Credits  
Theory and Practice
- Oct 2018 - **Statistics applied to Biology (Estadística aplicada a la Biología)**, *Bachelor of Biology*, Biology Faculty, University of Seville.  
Feb 2019  
1.2 ECTS Credits  
Practice
- Feb 2018 - **Introduction to Statistics (Introducción a la Estadística)**, *Bachelor of Law, Management and Public Administration (Doble Grado en Derecho y Gestión y Administración Pública)*, Law Faculty, University of Seville.  
June 2018  
3 ECTS Credits  
Theory and Practice

- Feb 2018 - **Statistics applied to Biochemistry (Estadística aplicada a la Bioquímica)**,  
 June 2018 *Bachelor of Biochemistry*, Biology Faculty, University of Seville.  
 0.7 ECTS Credits  
 Practice
- Feb 2018 - **Statistics (Estadística)**, *Bachelor of Informatics Engineering*, Informatics Faculty,  
 June 2018 University of Seville.  
 1.8 ECTS Credits  
 Practice
- Feb 2017 - **Introduction to Statistics (Introducción a la Estadística)**, *Bachelor of Law,*  
 June 2017 *Management and Public Administration (Doble Grado en Derecho y Gestión y Administración Pública)*, Law Faculty, University of Seville.  
 3 ECTS Credits  
 Theory and Practice
- Feb 2017 - **Statistics applied to Biochemistry (Estadística aplicada a la Bioquímica)**,  
 June 2017 *Bachelor of Biochemistry*, Biology Faculty, University of Seville.  
 0.7 ECTS Credits  
 Practice
- Sep 2016 - **Statistics applied to Biology (Estadística aplicada a la Biología)**, *Bachelor of*  
 Feb 2017 *Biology*, Biology Faculty, University of Seville.  
 2.5 ECTS Credits  
 Practice
- Feb 2016 - **Statistical Data Analysis (Análisis de Datos Estadísticos)**, *Bachelor of Man-*  
 June 2016 *agement and Public Administration (Grado en Gestión y Administración Pública)*,  
 Law Faculty, University of Seville.  
 3 ECTS Credits  
 Theory and Practice

## Bachelor Thesis Supervisor

- Jun 2024 **Feature Selection for Support Vector Machine**, *Antonio Luis Gómez Cuevas*,  
 Bachelor in Mathematics, University of Málaga.  
 The Spanish version of the document is available at: <https://riuma.uma.es/xmlui/handle/10630/31791>  
 Calification: 9 (out of 10).
- Sep 2023 **Valid Inequalities in Integer Programming. Application to the Knapsack Problem**, *Lourdes Albacete Maza*, Bachelor in Mathematics, University of Málaga.  
 The Spanish version of the document is available at: <https://riuma.uma.es/xmlui/handle/10630/27697>  
 Calification: 9.5 (out of 10) with honours.
- Sep 2022 **Supervised Learning: Methods, Properties and Applications**, *Gema Valenzuela González*, Bachelor in Mathematics, University of Málaga.  
 The Spanish version of the document is available at: <https://riuma.uma.es/xmlui/handle/10630/25147>  
 Calification: 8.5 (out of 10).

## Teaching Courses Received

- Nov 2022 - **Novel22 (Training Program for New Teachers)**, *Teacher Training and Innovation Service of the University of Málaga (Servicio de Formación e Innovación Docente de la Universidad de Málaga)*, Málaga, Spain.  
Jul 2024 450 hours
- Mar 2023 - **Formative evaluation in higher education (Evaluación formativa en educación superior)**, *Teacher Training and Innovation Service of the University of Málaga (Servicio de Formación e Innovación Docente de la Universidad de Málaga)*, Málaga, Spain.  
Apr 2023 20 hours
- Nov 2021 **New Virtual Campus Tool for Plagiarism Detection (Nueva Herramienta de Campus Virtual para la Detección de Plagio)**, *Teacher Training and Innovation Service of the University of Málaga (Servicio de Formación e Innovación Docente de la Universidad de Málaga)*, Online format.  
3 hours
- Nov 2020 **Microsoft Teams for Teaching (Microsoft Teams para la Docencia)**, *Teacher Training and Innovation Service of the University of Málaga (Servicio de Formación e Innovación Docente de la Universidad de Málaga)*, Online format.  
6 hours
- Mar 2020 **Scientific Research and Methodology, beyond the Master thesis (Investigación y Metodología Científica, Más Allá del TFM)**, *Higher Institute of Psychological Studies (Instituto Superior de Estudios Psicológicos - ISEP)*, Rafael Bisquerra, Barcelona, Spain (Online format).  
3 hours

## Scientific Dissemination Activities

- Apr 2024 **Night in the classrooms (La noche en las aulas)**, *Algorithmic adventure: Exploring coding processes with the help of Asunción*, Secondary school "Isaac Albéniz" and "Maristas", Málaga, Spain.  
Invited researcher
- Apr 2024 **Recording a podcast**, *Workshop on scientific-engineering professions to make female referents more visible*, Primary school "Flor de Azahar", Cártama, Málaga, Spain.  
Talk
- Feb 2024 **Educathon 24 - Girls in Science**, *International Day of Women and Girls in Science*, University of Málaga, Málaga, Spain.  
Invited researcher
- Feb 2023 **Educathon 23 - Girls in Science**, *International Day of Women and Girls in Science*, University of Málaga, Málaga, Spain.  
Invited researcher
- Feb 2019 **An Introduction to Mathematical Reasoning with Applications to Induction and Contradiction Proofs**, *Karumi, M. Asunción Jiménez Cordero*, Madrid, Spain.  
Talk

Nov 2018 **Science Week 2018**, *Mathematical Research Institute of the University of Seville (IMUS)*. University of Seville., Seville, Spain.  
Participant

## Other Merits

Sep 2017 Collaborator of the Apache Spark project "Roma. A sentiment analysis tool based on SVM". Available at <https://github.com/pedrovgs/Roma>, <https://pedrovgs.github.io/Roma/> and <http://blog.karumi.com/a-story-of-tweets-and-sentiments/>

## Languages

Spanish Native  
English B2 level. Certificate by Official Languages School of Seville (Escuela Oficial de Idiomas de Sevilla). June 2010  
French B2 level. Certificate by Official Languages School of Seville (Escuela Oficial de Idiomas de Sevilla). June 2012  
German B2 level. Certificate by Official Languages School of Seville (Escuela Oficial de Idiomas de Sevilla). June 2017

## Computational Skills

○ Cinderella	○ Fortran
○ Git	○ Github
○ Haskell	○ LaTeX
○ Mathematica	○ Matlab
○ Python	○ R
○ Sage	○ Scilab
○ SPSS	○ Xpress

## Research Interests

Mixed integer nonlinear programming, Inverse problems, Combinatorial problems, Model selection, Feature selection, Classification, Regression, Functional Data Analysis, Bilevel optimization