CV Date	12/11/2026

Part A. PERSONAL INFORMATION

First Name	Patrizia		
Family Name	Pérez Asurmendi		
Sex	Female	Date of Birth	14/11/1981
ID number Social Security, Passport	72705801H		
URL Web	https://www.ucm.es/fundamentos-analisis-economico2/pap		
Email Address	patrizip@ucm.es		
Open Researcher and Contributor ID (ORCID)	0000-0002-2626-4456		

A.1. Current position

Job Title	Titular de Universidad		
Starting date	2023		
Institution	Universidad Complutense de Madrid		
Department / Centre	Análisis Económico y Economía Cuantitativa / Facultad de Ciencias Económicas y Empresariales		
Country	Spain	Phone Number	(0034) 91 394 2598 - 2598
Keywords	Decision theory		

A.3. Education

Degree/Master/PhD	University / Country	Year
Programa Oficial de Doctorado en Economía	Universidad de Valladolid	2014
Master Oficial en Economía y Finanzas	Universidad de Navarra	2006
Licenciatura en Economía	Universidad Pública de Navarra	2005

Part B. CV SUMMARY

My research focuses on two main areas: Social Choice Theory and the construction of composite indicators.

In Social Choice Theory, I investigate the consistency of collective decision-making rules from theoretical and applied perspectives, considering crisp, reciprocal and linguistic models of individual preferences. My work examines the conditions under which different voting rules produce consistent collective decisions, contributing to the understanding of majority rules and collective rationality. I have also extended this research towards applied electoral analysis, including ecological inference, the comparison of voting intentions and electoral outcomes, and the study of voter consistency and electoral behaviour using data from different European countries. These developments involve methodological approaches based on mixture models, network analysis and statistical measures of agreement.

My second research area concerns the construction of composite indicators through complementary methodological approaches. One strand explores the Choquet integral as an aggregation function that accounts for interactions between dimensions, with applications to sustainability and human development. This work is developed within a research project funded by the Ramón Areces Foundation. A complementary strand uses distance-based methods: I have developed a Mahalanobis distance-based approach to measure the homogeneity of gender equality gaps across European countries, published in Social Indicators Research (2026) as “A Distance-Based Gender Equality Homogeneity Index: Application to European Union Data”.

Main research achievements:

Seven articles in WoS-JCR journals: five in Q1 (two in the first decile), one in Q3 and one in Q4.

Three book chapters published by Springer.

Publication of a scientific paper in the peer-reviewed proceedings of the MDAI conference (Type C).

More than 30 contributions to national and international scientific conferences.

Two research seminars delivered at universities in France and Spain.

Research stay at De Montfort University (Leicester, UK), working with Professor Francisco Chiclana (September–December 2012).

Reviewer for three WoS-JCR journals.

Principal Investigator of a project funded by the Ramón Areces Foundation (18th National Competition for Research Grants in the Social Sciences).

Researcher in seven projects funded by the Spanish Ministry of Education and Science and two complementary research-support initiatives.

International PhD in Economics, awarded the Extraordinary Doctoral Prize by the Faculty of Economics and Business, University of Valladolid (2013–2014).

Organization of the Spanish Social Choice Network meetings in 2008 and 2025.

Manuscripts under revision or review:

Llamazares, B., & Pérez-Asurmendi, P. (2026). "2-additive capacities in practice: Models based on orness and correlations". Manuscript under revision.

Pérez-Asurmendi, P., & de Andrés Calle, R. (2026). "Separating node-strength concentration from relational organisation in weighted two-layer state-transition networks". Submitted to Social Networks.

Pérez-Asurmendi, P., & de Andrés Calle, R. (2026). "Theoretical orderings and their finite-sample recovery for chance-corrected agreement coefficients in paired nominal data". Submitted to Statistical Methods & Applications.

Research impact: 65 citations in Web of Science, 68 in Scopus and 88 in Google Scholar.

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (nº x / nº y): position / total authors. If applicable, indicate the number of citations

1 **Scientific paper**. Patrizia Pérez-Asurmendi; Rocío de Andrés Calle. 2026. A Distance-Based Gender Equality Homogeneity Index: Application to European Union Data. Social Indicators Research. Springer. 184-46. https://doi.org/10.1007%2Fs11205-026-03937-2

2 **Scientific paper**. José Manuel Pavía; Rocío de Andrés Calle; Patrizia Pérez-Asurmendi. 2026. Simulating Electoral Behaviour with Mixture Models. Journal of Advanced Computational Intelligence and Intelligent Informatics. Fuji Technology Press.

3 **Scientific paper**. Patrizia Pérez-Asurmendi; Mostpha Diss. 2016. Consistent collective decisions under majorities based on difference of votes. Theory and Decision. Springer. 80, pp.473-194. https://doi.org/10.1007%2Fs11238-015-9501-4

4 **Scientific paper**. Mostpha Diss; Patrizia Pérez-Asurmendi. 2016. Probabilities of Consistent Election Outcomes with Majorities Based on Difference in Support. Group Decision and Negotiation. Elsevier. 25-5, pp.967-994. https://doi.org/10.1007%2Fs10726-015-9467-1

5 **Scientific paper**. Bonifacio Llamazares Rodríguez; Patrizia Pérez-Asurmendi. 2015. Triple-acyclicity in majorities based on difference in support. Information Sciences. Elsevier. 299, pp.209-220. https://doi.org/10.1016%2Fj.ins.2014.11.049

6 **Scientific paper**. Patrizia Pérez-Asurmendi; Francisco Chiclana. 2014. Linguistic majorities with difference in support. Applied Soft Computing. Elsevier. 18, pp.196-208. https://doi.org/10.1016%2Fj.asoc.2014.01.010

7 **Scientific paper**. Bonifacio Llamazares Rodríguez; Patrizia Pérez-Asurmendi; José Luis García Lapresta. 2013. Collective transitivity in majorities based on difference in supportference in support. Fuzzy Sets and Systems. Elsevier. 216, pp.3-15. https://doi.org/10.1016%2Fj.fss.2012.04.015

8 **Book chapter**. José Manuel Pavía; Patrizia Pérez-Asurmendi; Rocío de Andrés Calle. 2025. Ecological Inference for Electoral Analysis: A Computational Perspective on Human Decision-Making. Modeling Decisions for Artificial Intelligence (Lecture Notes in Computer Science). Springer Nature Link. 15957, pp.15-26. https://doi.org/10.1007%2F978-3-032-00891-6_2

9 **Book chapter**. Mostpha Diss; Patrizia Pérez-Asurmendi; Abdelmonaim Tlidi. 2021. The Effect of Closeness on the Election of a Pairwise Majority Rule Winner. Evaluating Voting Systems with Probability Models: Essays by and in Honor of William Gehrlein and Dominique Lepelley. Springer Cham. pp.75-95. https://doi.org/10.1007%2F978-3-030-48598-6_4

10 **Book chapter**. Patrizia Pérez-Asurmendi; Francisco Chiclana. 2013. Social Choice Voting with Linguistic Preferences and Difference in Support. Aggregation Functions in Theory and in Practise. Springer, Berlin. pp.249-260. https://doi.org/10.1007%2F978-3-642-39165-1_26

C.2. Conferences and meetings

1 Rocío de Andrés Calle; José Manuel Pavía; Patrizia Pérez-Asurmendi. La dinámica intención-voto en estudios electorales de panel: Un enfoque basado en la teoría de la información. XLII Congreso Nacional de Estadística, Investigación Operativa y Ciencia de Datos. Universidad de Santiago de Compostela. 2026. Spain.

2 José Manuel Pavía; Patrizia Pérez-Asurmendi; Rocío de Andrés Calle. An information-theoretic framework for comparing intention–vote dynamics in electoral panels. 26th International Conference on Group Decision and Negotiation (GDN 2026). University of Economics in Katowice. 2026. Poland.

3 Rocío de Andrés Calle; José Manuel Pavía; Patrizia Pérez-Asurmendi. A Computational Entropy-Based Approach to Intention-Vote Transitions. 21st International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IPMU 2026). Sapienza University of Rome. 2026. Italy.

4 José Manuel Pavía; Patrizia Pérez-Asurmendi; Rocío de Andrés Calle. Ecological Inference for Electoral Analysis: A Computational Perspective on Human Decision- Making. The 22nd International Conference on Modeling Decisions for Artificial Intelligence (MDAI 2025). MDAI Conference. 2025. Spain.

5 José Manuel Pavía; Patrizia Pérez-Asurmendi; Rocío de Andrés Calle. DE LA AGREGACIÓN AL INDIVIDUO: EVALUACIÓN EMPÍRICA DE LA INFERENCIA ECOLÓGICA CON ENCUESTAS ELECTORALES DEL CIS (ESPAÑA, 2015-2016). XXXVIII Congreso Internacional ASEPELT. Unversidad de Alcalá de Henares. 2025. Spain.

6 Rocío de Andrés Calle; Patrizia Pérez-Asurmendi. Insights on gender inequality in large populations. The 16th FLINS Conference on Computational Intelligence in Decision and Control – The 19th ISKE Conference on Intelligence Systems and Knowledge Engineering. Universidad Complutense de Madrid. 2024. Spain.

7 Patrizia Pérez-Asurmendi; Rocío de Andrés Calle. Understanding the relationship between information, perceptions, and electoral behavior in large-scale populations. The 16th FLINS Conference on Computational Intelligence in Decision and Control – The 19th ISKE Conference on Intelligence Systems and Knowledge Engineering. Universidad Complutense de Madrid. 2024. Spain.

8 Bonifacio Llamazares; Patrizia Pérez-Asurmendi. Choquet integral and 2-additive capacities in the construction of composite indices. VI Congreso Español de Informática, XX Spanish Congress on Fuzzy Technologies and Logic. Universidad de Málaga. 2021. Spain.

C.3. Research projects and contracts

1 **Project**. 022-139469NBI00, Nuevas metodologías y sus aplicaciones la la toma de decisiones colectivas. Ministerio de Ciencia e Innovación. Bonifacio Llamazares Rodríguez. (Universidad de Valladolid). 01/09/2023-31/08/2027. 52.125 €.

2 **Project**. Diseño e implementación de índices compuestos: una propuesta en el ámbito de la sosteniblidad. Fundación Ramón Areces. Patrizia Pérez Asurmendi. (Universidad Complutense de Madrid). 25/10/2019-30/04/2026. 36.000 €.

3 **Project**. Agregación de la información: aplicaciones a la economía del bienestar y a las decisiones sociales. Ministerio de Economía y Competitividad. José Luis García Lapresta. (Universidad de Valladolid). 30/12/2016-29/12/2019. 50.820 €.

4 **Project**. ECO2015-65031, Decisiones racionales y bienestar social: Fundamentos y Aplicaciones. Ministerio de Economía y Competitividad. Ricardo Arlegui Pérez. (Universidad Pública de Navarra). 01/01/2016-30/06/2019. 15.246 €. Team member.

5 **Project**. ECO2012-32178, Decisiones colectivas y bienestar social. Ministerio de Economía y Competitividad. José Luis García Lapresta. (Universidad de Valladolid). 01/01/2013-31/12/2015. 52.065 €.

6 **Project**. ECO2012-34202, Elección social y valores individuales: fundamentos y aplicaciones. Ministerio de Economía y Competitividad. Jorge Nieto Vázquez. (Universidad Pública de Navarra). 01/01/2013-31/12/2015. 54.405 €. Team member.

7 **Project**. ECO2009-07332, Elección social: decisiones colectivas, equidad y consenso. Ministerio Educación y Ciencia. José Luis García Lapresta. (Universidad de Valladolid). 01/01/2010-31/12/2012. 74.536 €.

8 **Project**. ECO2010-09449, Red Española en Elección Social (REES). MINISTERIO DE EDUCACION Y CIENCIA. Jordi Massó Carreras. (Universitat Autònoma de Barcelona). 01/01/2010-31/12/2012. 30.000 €.

9 **Project**. ECO2009-12836, Social choice and individual values: theory and applications. Ministerio de Economía y Competitividad. Jorge Nieto Vázquez. (Universidad Pública de Navarra). 01/01/2010-31/12/2012. 107.085,01 €. Team member.

10 **Project**. SEJ2007-30297, Red Española en Elección Social (REES). MINISTERIO DE EDUCACION Y CIENCIA. Jordi Massó Carreras. (Universitat Autònoma de Barcelona). 01/01/2008-31/12/2009. 20.000 €.

11 **Project**. SEJ2006-11510, Social choice, individual values and sustainable development. Ministerio de Economía y Competitividad. Jorge Nieto Vázquez. (Universidad Pública de Navarra). 01/01/2007-31/12/2009. 147.232,8 €. Team member.

12 **Contract**. Social Choice, Individual Values and Sustainable Development MINISTERIO DE EDUCACION Y CIENCIA. Jorge Nieto Vázquez. From 01/05/2007. 18.000 €.