

Rocío de Andrés Calle

Foundations of Economic Analysis
University of Salamanca
Salamanca, Spain

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Born: May 1, 1976—Segovia, Spain
Nationality: Spanish



Current position

Associate Professor of Foundations of Economic Analysis, University of Salamanca

Areas of specialization

Decision making . Social choice

Appointments held

- 2015-2017 Assistant Professor (Profesor Contratado Doctor de Universidad), Departamento de Economía e Historia Económica (Área de Fundamentos), Universidad de Salamanca
- 2010-2015 Assistant Professor (Profesor Ayudante Doctor de Universidad), Departamento de Economía e Historia Económica (Área de Fundamentos), Universidad de Salamanca
- 2006-2010 Assistant Professor (Profesor Ayudante), Departamento de Fundamentos del Análisis Económico e Historia e Instituciones Económicas (Área de Fundamentos), Universidad de Valladolid
- 2004-2006 Assistant Professor (Profesor Asociado), Departamento de Fundamentos del Análisis Económico e Historia e Instituciones Económicas (Área de Fundamentos), Universidad de Valladolid
- 2003-2004 Assistant Professor (Profesor Asociado), Departamento de Economía Aplicada (Matemáticas), Universidad de Valladolid

Education

- 2004-2009 EUROPEAN PH. D. in Economics, Facultad de Ciencias Económicas y Empresariales, Universidad de Valladolid (Spain). Advisors: José Luis García Lapresta and Luis Martínez López
- 2002-2004 M. Sc. in Economics, Facultad de Ciencias Económicas y Empresariales, Universidad de Valladolid (Spain)
- 1995-2000 B. Sc. in Economics, Facultad de Ciencias Económicas y Empresariales, Universidad de Valladolid (Spain)

Grants, honors & awards

- 2010 Outstanding Dissertation Award, University of Valladolid
- 2009 Valedictorian, University of Valladolid
- 2006 Outstanding Degree Award, University of Valladolid

Publications

	ResearcherID	h-Index	Cites
WOS	I-1029-2015	7	132
Scopus	55663558300	8	247

JOURNAL ARTICLES

- In Press *Preferences stability: A measure of preferences changes over time*, with J.M. Cascón and T. González-Arteaga in *Decision Support Systems*.
- 2019 *Reaching social consensus family budgets: The Spanish case*, with J.M. Cascón and T. González-Arteaga in *OMEGA*, Volume 89, pp. 28-41.
- 2018 *Managing interacting criteria: Application to environmental evaluation practices*, with T. González-Arteaga and L. Martínez in *Axioms*, Volume 7(1), 4.
- 2017 *The problem of collective identity in a fuzzy environment*, with J. C. Rodríguez Alcantud in *Fuzzy Sets and Systems*, Volume 315, pp. 57-75.
- 2017 *Preference stability along time: The time cohesiveness measure*, with T. González-Arteaga and M. Peral in *Progress in Artificial Intelligence*, Volume 6, Issue 3, pp 235-244.
- 2016 *A new consensus ranking approach for correlated ordinal information based on Mahalanobis distance*, with T. González-Arteaga and J. C. Rodríguez Alcantud in *Information Sciences*, pp. 546-564.
- 2016 *A new measure of consensus with reciprocal preference relations: The correlation consensus degree* with T. González-Arteaga and F. Chiclana in *Knowledge Based Systems* 107, pp. 104-116.
- 2016 *A cardinal dissensus measure based on the Mahalanobis distance*, with T. González-Arteaga and J. C. Rodríguez Alcantud in *European Journal of Operational Research* 251, pp. 575-585.
- 2016 *A segment-based approach to the analysis of project evaluation problems by hesitant fuzzy sets*, with J. C. Rodríguez Alcantud in *International Journal of Computational Intelligence Systems* 29, pp. 325-339.
- 2016 *Hesitant Fuzzy Worth: an innovative ranking methodology for hesitant fuzzy subsets*, with J. C. Rodríguez Alcantud and M. J. Muñoz Torrecillas in *Applied Soft Computing* 38, pp. 232-243.
- 2015 *Pairwise dichotomous cohesiveness measures*, with J. C. Rodríguez Alcantud and J. M. Cascón in *Group Decision and Negotiation* 24, pp. 833-854.

- 2013 *Consensus and the act of voting*, with J. C. Rodríguez Alcantud and J. M Cascón in *Studies in Microeconomics* 1, pp. 11-22.
- 2013 *On measures of cohesiveness under dichotomous opinions: some characterizations of Approval Consensus Measures*, with J. C. Rodríguez Alcantud and J. M Cascón in *Information Sciences* 240, pp. 45-55.
- 2013 *A 360-degree performance appraisal model dealing with heterogeneous information and dependent criteria*, with M. Espinilla, F. J. Martínez and L. Martínez in *Information Sciences* 222, pp. 459-471.
- 2013 *A unifying model to measure consensus in a society*, with J. C. Rodríguez Alcantud and J. M Cascón. *Mathematical and Computer Modelling* 57, pp. 1876-83.
- 2010 *An extended hierarchical linguistic model for managing integral evaluation*, with M. Espinilla and L. Martínez in *International Journal of Computational Intelligence Systems* 3, pp. 486-500.
- 2010 *An endogenous human resource selection model based on linguistic assessments* with J. L. García-Lapresta in *Neural Network World* 20, pp. 91-111.
- 2010 *Performance appraisal based on distance functions methods*, with J. L. García-Lapresta and J. González-Pachón in *European Journal of Operational Research* 207, pp. 1599-1607.
- 2010 *A multi-granular linguistic model for management decision-making in performance appraisal*, with J. L. García-Lapresta and L. Martínez in *Soft Computing* 14, pp. 21-34.
- 2005 *Selección endógena de expertos*, with J. L. García-Lapresta in *Cuadernos del CIMBAGE* 7, pp. 127-149.

CHAPTERS IN BOOKS (INTERNATIONAL EDITORIALS)

- 2017 *New approach to measure preference stability* with T. González-Arteaga in Fuzzy Systems (FUZZ-IEEE) 2017 IEEE International Conference. *Proceedings of the 2017 IEEE Conference on Fuzzy Systems (FUZZ-IEEE2017)*. pp. 1-6. IEEE.
- 2015 *A linguistic approach for self-perceived health state: a real study for diabetes diseases*, with T. González Arteaga, J.C. Rodríguez Alcantud and M. Peral. In: *Advances in Artificial Intelligence. Lecture Notes in Computer Science*. pp. 71 – 81. Springer.
- 2015 *New correlation coefficients for hesitant fuzzy sets*, with T. González Arteaga and J.C. Rodríguez Alcantud. In: *Advances in Artificial Intelligence. Lecture Notes in Computer Science*. pp. 71 – 81. Springer.
- 2012 *A fuzzy envelope for hesitant fuzzy linguistic term sets based on Choquet integral*, with T. Gonzalez Arteaga, R. Rodriguez and L. Martinez. In: *Uncertainty Modelling in Knowledge Engineering and Decision Making*. 7, pp. 52 -57. World Scientific.
- 2012 *Aggregation procedure based on Choquet integral for evaluating company's environmental practices*, with T. Gonzalez Arteaga. In: *Uncertainty Modelling in Knowledge Engineering and Decision Making*. 7, pp. 52 -57. World Scientific.
- 2011 *A MCDM approach for evaluating company's environmental practices*, with T. González Arteaga and L. Martínez. In: *Advances in Intelligent Systems Research* 1, pp. 912 – 919. Atlantis Press.
- 2011 *A heterogeneous Evaluation model for the assessment of sustainable energy policies*, with M. Espinilla, F. Martínez and L. Martínez. In: *Advances in Intelligent and Soft Computing* 107, pp. 206 – 220. Springer-Verlag.

- 2010 *A Linguistic EQ-5D Proposal*, with P. Gómez Costilla. In: *Computational Intelligence. Foundations and Applications* 4, pp. 1036 – 1041. World Scientific.
- 2010 *A New Methodology To Measure Consensus*, with J.C. Rodríguez Alcántud. In: *Intelligent Systems And Knowledge Engineering* 3, pp. 365 – 370. IEEE Press.
- 2009 *Performance Appraisal with multiple linguistic scales*, with M. Espinilla, L. Martínez and R. M. Rodríguez. In: *Intelligent System and Knowledge Engineering* (eds. S. Li, T. Li, Da Ruan). IEEE Press, Beijing, pp. 433-439.
- 2008 *A decision making procedure for designing human resources management*, with J. L. García-Lapresta and M. Jiménez. In: *Computational Intelligence in Decision and Control* (eds. D. Ruan, J. Montero, J. Lu, L. Martínez, P. D'hondt, E.E. Kerre). World Scientific, Singapore, pp. 799-804.
- 2008 *Performance Appraisal with heterogenous information*, with J. L. García-Lapresta, J. Liu and L. Martínez. In: *Intelligent System and Knowledge Engineering* (eds. S. Li, T. Li, Da Ruan). IEEE Press, Beijing, pp. 1409-1414.
- 2006 *A linguistic 360-degree performance appraisal evaluation model*, with J.L. García Lapresta and L. Martínez. In: *Applied Artificial Intelligence*, pp. 417 – 424. World Scientific.

BOOKS

- 2009 *Nuevos enfoques desde las Teorías de Subconjuntos Difusos y de la Decisión Multicriterio*, with J. L. García Lapresta. Lección del día del Doctor, Universidad de Valladolid. Universidad de Valladolid, 2009

Conferences and Seminar presentations

INTERNATIONAL CONFERENCES

- 2019 useR! 2019. Toulouse (France)
- 2018 17th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems (IMPU). Cádiz (Spain)
- 2017 2017 IEEE Conference on Fuzzy Systems. Naples (Italy)
- 2017 UseR!2017. Brussels (Belgium).
- 2015 2015 Conference of the International Fuzzy Systems Association and the European Society for Fuzzy Logic and Technology. Gijón (Spain)
- 2013 EUROFUSE' 2013, Workshop on Imprecision and Uncertainty in Preference Modeling and Decision Making. Oviedo (Spain)
- 2013 2013 Annual Meeting of the Association of South European Economic Theorists. Bilbao (Spain)
- 2012 10th International FLINS Conference on Computational Intelligence in Decision and Control, FLINS 2012. Istanbul (Turkey)
- 2011 EUROFUSE' 2011, Workshop on Imprecision and Uncertainty in Preference Modeling and Decision Making. Régua (Portugal)
- 2010 European Society for Fuzzy Logic and Technology. EUSFLAT 2011. Aix-Les-Bains (France) 20 International Conference on Intelligent Systems and Knowledge Engineering, ISKE 2010. Hangzhou (China)
- 2010 9th International FLINS Conference on Computational Intelligence in Decision and Control, FLINS 2010. Chengdu-Emei (China)
- 2010 8th European Conference on Health Economics, ECHE 2010. Helsinki (Finland)
- 2009 ISKE 2009 Intelligent System and Knowledge Engineering. Hasselt (Belgium)
- 2009 ISCAMI 2009. International Student Conference on Applied Mathematics and Informatics. Malenovice (Czech Republic)
- 2008 3rd International Conference on Intelligent System and Knowledge Engineering. Xiamen (China)

- 2008 8th International FLINS Conference on Computational Intelligence in Decision and Control. Madrid (Spain)
- 2008 MTISD 2008. Methods, Models and Information Technologies for Decision Support Systems. Lecce (Italy)
- 2007 XIV Congress of International Association for Fuzzy-Set Management and Economy. Poiana Brasov (Romania)
- 2006 7th International FLINS Conference on Applied Artificial Intelligence, Genova (Italy)
- 2006 7th Internacional Conference on MultiObjective Programming and Goal Programming (MOPGP'06). Tours (France)
- 2005 XII SIGEF Congress. Bahía Blanca (Argentina)
- 2004 International Conference on Modelling & Simulation – ICMS'04. Valladolid (Spain)
- 2004 Conference on Economic Design SED 2004. Palma de Mallorca (Spain)

NATIONAL CONFERENCES

- 2019 XXVII Jornadas de ASEPUMA. Santander, Spain
- 2018 XIX Conferencia de la Asociación Española para la Inteligencia Artificial, Granada, Spain
- 2016 XVII Conferencia de la Asociación Española para la Inteligencia Artificial, Salamanca, Spain XVIII Congreso Español sobre Tecnologías y Lógica Fuzzy, ESTYLF 2016. San Sebastián, Spain
- 2015 XVI Conferencia de la Asociación Española para la Inteligencia Artificial. Albacete, Spain
- 2015 IV Jornadas de Trabajo sobre Sistemas de Votación. Soria, Spain
- 2014 Conference on axioms, results and methods in normative Economics. Granada, Spain
- 2014 XX Aniversario del Departamento de Economía e Historia Económica. Salamanca, Spain
- 2014 XVII Congreso Español sobre Tecnologías y Lógica Fuzzy, ESTYLF 2014. Zaragoza, Spain
- 2013 X Meeting of the Spanish Network in Social Choice, REES 2013. Malaga, Spain
- 2013 III Jornadas de Trabajo sobre Sistemas de Votación. Soria, Spain
- 2012 IX Meeting of the Spanish Network in Social Choice, REES 2012. Salamanca, Spain
- 2012 XXXII Jornadas de Economía de la Salud. Bilbao, Spain
- 2012 XVI Congreso Español sobre Tecnologías y Lógica Fuzzy, ESTYLF 2012. Valladolid, Spain
- 2011 VIII Meeting of the Spanish Network in Social Choice, REES 2011. Bilbao, Spain
- 2001 Mathematical Modelling in Engineering and Human Behavior Conference. Valencia, Spain
- 2010 XXXII Congreso Nacional de Estadística e Investigación Operativa, SEIO 2010. A Coruña, Spain
- 2007 XXX Congreso Nacional de Estadística e Investigación Operativa. Valladolid, Spain
- 2007 II Congreso Español de Informática, Simposio sobre Lógica Fuzzy y Soft Computing. Zaragoza, Spain
- 2006 XIV Jornadas de ASEPUMA. Badajoz, Spain
- 2006 XIII Congreso Español sobre Tecnologías y Lógica Fuzzy, ESTYLF2006. Ciudad Real, Spain
- 2005 I Congreso Español de Informática, Simposio sobre Lógica Fuzzy y Soft Computing. Granada, Spain
- 2005 XIX Reunión Anual ASEPELT. Badajoz, Spain 2004
- 2004 XII Congreso Español sobre Tecnologías y Lógica Fuzzy, ESTYLF2004. Jaén, Spain
- 2004 XVIII Reunión Anual ASEPELT. León, Spain

Research Projects

DIRECTOR OF THE TEAM

- 2011-2011 Un nuevo modelo difuso de evaluación de hospitales para la mejora de la calidad del sistema sanitario basado en el sistema PATH. Consejería de Sanidad de la Junta de Castilla y León

MEMBER OF THE TEAM

- 2017-2019 Agregación de la información: Aplicaciones a la economía del bienestar y a las decisiones sociales. Ministerio de Economía y Competitividad
- 2013-2016 Diseño, análisis y caracterización de nuevos procedimientos de decisión colectiva. Consejería de Educación y Cultura de la Junta de Castilla y León
- 2013-2016 Decisiones colectivas y bienestar social. Ministerio de Ciencia e Innovación
- 2013-2016 Toma de decisiones estratégicas inteligentes en contextos de incertidumbre. Ministerio de Ciencia e Innovación
- 2010-2012 Red Española de Elección Social (REES). Ministerio de Ciencia e Innovación
- 2010-2012 Elección Social: decisiones colectivas, equidad y consenso. Ministerio de Ciencia e Innovación
- 2010-2012 Optimización del tratamiento del cáncer de pulmón no microcítico mediante caracterización de una red bayesiana y desarrollo de un sistema de ayuda a la toma de decisiones: modelización, simulación y validación. MAPFRE
- 2009-2011 Nuevas aportaciones al análisis de la decisión e implicaciones en la Economía y la Ciencia Política. Consejería de Educación y Cultura de la Junta de Castilla y León
- 2009-2010 Mundo Virtual sin Desigualdades. Junta de Andalucía
- 2008-2010 Elección colectiva, libertad y consenso. Consejería de Educación de la Junta de Castilla y León
- 2008-2009 Red Española de Elección Social (REES). Ministerio de Educación y Ciencia
- 2006-2009 Preferencias y Elección Social: caracterizaciones de sistemas de votación y análisis de la consistencia. Ministerio de Educación y Ciencia
- 2006-2006 Consistencia y representatividad en la toma de decisiones individuales y colectivas. Ministerio de Educación y Ciencia
- 2005-2007 Toma de decisiones individuales y colectivas: análisis de la consistencia y de la representatividad. Consejería de Educación y Cultura de la Junta de Castilla y León

Stays in International Research Centers

- 2010 University of Sheffield, Sheffield, UK. June-July 2010 (5 weeks)
- 2009 University of Sheffield, Sheffield, UK. November 2009 (3 weeks)
- 2009 Ulster University, Belfast, North Ireland, UK. October 2009 (4 weeks)
- 2009 Università Degli Studi di Trento, Trento, Italy. April 2009 (2 weeks)
- 2008 Università Degli Studi Federico II di Napoli, Naples, Italy. May 2008 (2 weeks)
- 2008 Ulster University Belfast, Belfast, North Ireland, UK. June-September 2008 (15 weeks)

Ph. D. Thesis

ADVISOR

- 2017 Teresa González Arteaga: *Cohesiveness in group decision making problems: Its measurement and its achievement*. International Doctorate Designation. Universidad de Salamanca. Co-advised by J.C. Rodríguez Alcantud.
- 2016 Francisco Martínez Mimblera: *Modelo lingüístico difuso para problemas de evaluación con información heterogénea considerando la posible dependencia entre criterios*. Aplicación a la evaluación del desempeño integral. Universidad de Jaén. Co-advised by M. Espinilla and L. Martínez.

MEMBER OF THE COMMITTEE

2019	Xia Liu. University of Granada
2019	Ru Xi Ding. University of Granada
2019	Xunjie Gou. University of Granada
2018	CongCong Li. University of Granada

Teaching

UNDERGRADUATE

2014-2016	Economic Statistics (Degree in Economics, University of Salamanca, Spain
2010-2019	Statistic II (Degree in Business Administration and Management, University of Salamanca, Spain
2010-2019	Statistic I (Degree in Economics and Degree in Business Administration and Management, University of Salamanca, Spain
2009-2010	Introduction to Economics (Degree in Economics and Degree in Business Administration and Management, University of Valladolid, Spain
2008-2010	International economics theory and policy (Degree in International trade and financial relations, University of Valladolid, Spain
2007-2008	International monetary economics (Degree in Economics, University of Valladolid, Spain
2006-2007	International economics (Degree in Economics, University of Valladolid, Spain
2005-2006	Macroeconomics (Degree in Economics, University of Valladolid, Spain
2004-2005	Introduction to Economics (Degree in Economics and Degree in Business Administration and Management, University of Valladolid, Spain
2004-2005	Introduction to Economics (Degree in Statistics, University of Valladolid, Spain
2003-2004	Mathematics o (Degree in Economics, University of Valladolid, Spain
2003-2004	Mathematical methods for economics (Degree in Economics, University of Valladolid, Spain

POSTGRADUATE

2009-2010	Economy (University Master in Secondary School Teaching, University of Valladolid, Spain
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PH.D LEVEL

20015-2016	Ph.D Course: R for beginners. University of Valladolid, Spain
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TEACHING INNOVATION PROJECTS (HEAD)

2018-2019	Elaboración de Materiales Didácticos Virtuales para un Curso Cero de Estadística y Probabilidad para las Titulaciones de la Facultad de Economía y Empresa. University of Salamanca, Spain
2013-2014	Implantación de metodologías activas de evaluación en Stadium: Grado en ADE y Economía. University of Salamanca, Spain
2012-2013	Una experiencia colaborativa para la evaluación de competencias en el grado de Economía. University of Salamanca, Spain

Referee

- Applied Mathematical Modelling
- Axioms
- European Journal of Operational Research
- Fuzzy Economic Review
- Fuzzy Sets and Systems
- IEEE Transactions on Fuzzy Systems
- Information Fusion
- Information Sciences
- International Journal of Computational Intelligence Systems
- International Journal of Uncertainty, Fuzziness and Knowledge-Based Systems
- Journal of Intelligent and Fuzzy Systems
- Knowledge-Based Systems
- Symmetry
- Social Sciences Research
- Soft Computing
- Investigaciones Europeas de Dirección y Economía de la Empresa