

Part A. PERSONAL INFORMATION

CV date

30/09/2019

First and Family name	María Concepción Ausín Olivera	
Researcher codes	WoS Researcher ID (*)	Y-9443-2019
	SCOPUS Author ID(*)	6507347350
	Open Researcher and Contributor ID (ORCID) **	0000-0003-0904-6542

(*) At least one of these is mandatory

(**) Mandatory

A.1. Current position

Name of University/Institution	Universidad Carlos III de Madrid		
Department	Department of Statistics		
Address and Country	Calle Madrid, no 126, 28905, Getafe, Madrid, Spain		
Phone number	34+916245852	E-mail	concepcion.ausin@uc3m.es
Current position	Associate Profesor	From	April 2011
Key words	Bayesian statistics; copulas; time series; risk prediction		

A.2. Education

	University	Year
PhD. Mathematical Engineering	Universidad Carlos III de Madrid	2004

A.3. JCR articles, h Index, thesis supervised...

Number of research periods (sexenios) with positive evaluation: 2

Date of the last research period (sexenio) with positive evaluation: 2016

Number of supervised doctoral thesis: 5

Number of JCR articles: 26

Number of publications: 24 (Web of Science) 26 (Scopus) 74 (Google Scholar)

Total citations: 306 (Web of Science) 354 (Scopus) 615 (Google Scholar)

Average citations per year during the last five years: 41.1 (Web of Science) 46.2 (Scopus) 64.6 (Google Scholar)

h Index: 10 (Web of Science) 11 (Scopus); 13 (Google scholar).

Total number of publications in the first quartile (Q1): 10

Part B. CV SUMMARY (max. 3500 characters, including spaces)

I obtained my BSc degree in Mathematics in 1997 at the Universidad Complutense de Madrid. After this, I was enrolled in the doctoral program in Mathematical Engineering at the Universidad Carlos III de Madrid. In 2004, I obtained my PhD degree in the area of Statistics.

I am Associate Professor in the Department of Statistics at Universidad Carlos III since 2011. Before this, I had been Assistant Professor in the same department since 2009. From 2007 to 2008, I was working as *Ayudante Doctor* in the Department of Statistics and Operational Research at the Universidad Complutense de Madrid. From 2005 to 2007, I was a Postdoctoral Researcher of the Xunta Galicia Parga Pondal in the Department of Mathematics at the Universidade da Coruña. Previously, I had been working as Teaching Assistant at the Department of Statistics of the Universidad Carlos III since 1998.

My main research lines include Bayesian inference; climate change; copulas; nonparametric models; financial time series; insurance and financial risk, among others. I have 24 papers in JCR indexed journals, some of them with very high impact factor like *Science Advances*, *Nature Scientific Reports*, *Water Resources Research*, *Stochastic Environmental Research and Risk Assessment* and *Journal of Business and Economic Statistics*, among others. Also, I have written five invited book chapters published by *Wiley*, *Oxford University Press* and *Risk Books*.



I have co-supervised five doctoral theses: (1) Two of them together with Pedro Galeano on different Bayesian analysis of multivariate financial time series; (2) Two of them together with Michael Wiper on nonparametric copulas both from the classical and Bayesian perspective; (3) One with Carmen Domínguez, from the Universidad de Salamanca, on the use of parametric copulas for the study of glaciers in the Antarctica.

In addition to these collaborations, I have also worked with: (1) Hedibert F. Lopes, Full Professor at Insperring Institution in Brasil and University of Chicago in financial time series; (2) Fabrizio Ruggeri, Director at the Italian National Research Council in Milan in hospital management problems; (3) Ali Sarhadi, Postdoctoral Fellow at the Standford University in climate change problems; (4) Donald H. Burn, Professor at the University of Waterloo in drought and flood risk; (5) Noah S. Diffenbaugh, Professor at the Standford University in climate change problems; (6) Pulak Ghosh Professor in the Indian Institute of Management in Bangalore on the nonparametric estimation of financial time series; (7) Gabriel Núñez-Antonio, Professor at the Universidad Autónoma Metropolitana de México in circular data; (8) Ricardo Cao, Full Professor at the Universidade da Coruña in insurance ruin probabilities ; (9) Miguel A. Villegas, Full Professor at the Universidad Complutense de Madrid in multiple hypothesis testing for microarrays.

I have made two postdoctoral research stays in the University of Chicago Booth School of Business, one predoctoral stay in the IMATI Institute of the Consiglio Nazionale delle Ricerche in Milan, a short-term research stay at the Trinity College in Dublin and a teaching stay in the Universidad Nacional San Antonio Abad del Cusco in Peru. I have contributed in 24 international and 8 national conferences. I have been invited to give 11 seminars in various departments, four of them in international universities.

I have participated in 14 research projects of the Spanish Government, Autonomous Community of Madrid, Xunta de Galicia and Banco Santander. I am a member of the group "Dependence and Copulas" of the ERCIM (European Consortium for Informatics and Mathematics) Working Group on Computational and Methodological Statistics. I am a member of the International Society for Bayesian Analysis and the Spanish Society of Statistics and Operation Research.

Part C. RELEVANT MERITS

C.1. Publications (the 10 most relevant).

1. A. Sarhadi, M.C. Ausín, M.P. Wiper, D. Touma, N.S. Diffenbaugh (2018). Multi-dimensional risk in a non-stationary climate: joint probability of increasingly severe warm and dry conditions. *Science Advances*, vol 4, no. 11.
2. M. Gómez, M.C. Ausín, M.C. Domínguez, (2018). Vine copula models for predicting water flow discharge at King George Island, Antarctica. *Stochastic Environmental Research and Risk Assessment*, 32, 2787–2807.
3. M. Gómez, M.C. Ausín, M.C. Domínguez, (2017). Seasonal copula models for the analysis of glacier discharge at King George Island, Antarctica. *Stochastic Environmental Research and Risk Assessment*, 31, 1107-1121.
4. A. Sarhadi, M. C. Ausín, M. P. Wiper, (2016). A New Time-varying Concept of Risk in a Changing Climate. *Nature Scientific Reports*, 6, Article number: 35755.
5. A. Sarhadi, D. H. Burn, M. C. Ausín, M. P. Wiper (2016). Time-varying nonstationary multivariate risk analysis using a dynamic Bayesian copula. *Water Resources Research*, 52, 2327–2349.
6. A. Virbickaite, M.C. Ausín, and P. Galeano (2015) Bayesian inference methods for univariate and multivariate GARCH models: a survey. *Journal of Economic Surveys*, 29, 76-96.



7. M.C. Ausín, P. Galeano and P. Ghosh (2014) A semiparametric Bayesian approach to the analysis of financial time series with applications to Value at Risk estimation. *European Journal of Operational Research*, 232, 350-358.
8. J.A. Carnicero, M.C. Ausín and M.P. Wiper (2013) Non-parametric copulas for circular-linear and circular-circular data: an application to wind directions. *Stochastic Environmental Research and Risk Assessment*, 27, 1991-2002.
9. M. C. Ausín, J.M. Vilar, R. Cao, C. González-Fragueiro (2011). Bayesian analysis of aggregate loss models. *Mathematical Finance*, 21, 257-279.
10. P. Galeano, M. C. Ausín (2010). The Gaussian Mixture Dynamic Conditional Correlation Model: Parameter Estimation, Value at Risk calculation and portfolio selection. *Journal of Business and Economic Statistics*, 28, 559 – 571.

C.2. Research projects and grants

1. **Big data y datos complejos en Economía y Empresa.** Ministerio de Economía y Competitividad. Universidad Carlos III de Madrid. Desde 01/2016 hasta: 12/2019. Investigadores responsables: Daniel Peña Sánchez de Rivera y Juan Romo Urroz. Número de doctores participantes: 19.
2. **Análisis de datos de muy alta dimensión en economía y empresa.** Entidad financiadora: Ministerio de Ciencia e Innovación. Universidad Carlos III de Madrid. Desde: 01/2012 hasta: 12/2014. Investigador responsable: Juan Romo Urroz. Número de doctores: 14
3. **Inferencia estadística no paramétrica: Aplicaciones en análisis térmico, riesgo de crédito, malherbología y genómica.** Ministerio de Ciencia e Innovación. Universidade da Coruña Desde: 01/2009 hasta: 12/2011 Investigador responsable: Ricardo Cao Abad Número de doctores: 15.