

Part A. PERSONAL INFORMATION

		CV date	26/09/2022
First and Family name	Wenceslao González Manteiga		
Social Security, Passport, ID number	32618861P	Age	66
Researcher numbers	Researcher ID	E-4253-2012	
	Orcid code	0000-0002-3555-4623	

A.1. Current position

Name of University/Institution	University of Santiago de Compostela		
Department	Statistics, Mathematical Analysis and Optimization Faculty of Mathematics		
Address and Country	Rúa Lope Gómez de Marzoa s/n 15782 Santiago de Compostela - Spain		
Phone number	E-mail	wenceslao.gonzalez@usc.es	
Current position	Full Professor	From	1992
UNESCO Code	1209; 120906; 120909; 120910; 120911; 120913; 120914		
Keywords	Curve estimation, Time series, Neural Networks, Bootstrap, Spatial data analysis, Survival data analysis, Finite populations, Small areas, Biostatistics, Financial Econometrics, Environmental and Industrial Applications, Functional data, Goodness of fit tests for regression models.		

A.2. Education

PhD	University	Year
BSc in Mathematics (extraordinary award)	Faculty of Mathematics. University of Santiago de Compostela (USC)	1979
PhD in Mathematics (extraordinary award)	Faculty of Mathematics. University of Santiago de Compostela (USC)	1982

A.3. JCR articles

h Index: 26 (Web of Science de Thomson Reuters), 40 (Scholar Google)

Number of thesis supervised (in the last ten years): 9 (dates of lecture: 19/02/2021, 23/02/2018, 28/04/2017, 05/02/2016, 06/03/2015, 12/12/2014, 04/07/2014, 04/04/2013, 16/09/2011).

Total number of citations: 2470 (Web of Science de Thomson Reuters), 5966 (Scholar Google)

Average citations per year (past 5 years, not included 2022): 22,6 (Web of Science de Thomson Reuters)

Average per item: 15,34

Number of publications in the Q1 quartile (JCR): 35 (Web of Science de Thomson Reuters)

Part B. CV SUMMARY

Wenceslao González Manteiga is Full Professor of Statistics at the University of Santiago de Compostela (USC). He is the chair of a big school in Nonparametric Inference in Galicia (Spain). Starting alone in this field in his University in the year 1980, since then he was the advisor of 33 students in 39 years (1982-2021). Many of them are now good researchers and leaders in the field of nonparametric curve estimation with applications in different topics as Environmental Sciences, Finance and Health. He was co-author of many papers with different Spanish or international researchers (more than 200 papers in refereed journals, 13 book chapters, and guest editor of special thematic issues in the journals, *Environmetrics* (2011), *CSDA* (2007)). He has 6 six-year periods of recognition and 1 six-year period of recognition of transfer.

He was coordinator of important networks in Mathematics (such as Consulting and Computing in Mathematics (2006-10); Cochair of the Ercim WG on Computing & Statistics in statistics for functional data; Main researcher of the scientific group in Statistics at the USC; Partner of the IAP network in Europe: "Statistical Analysis of Association and Dependence in Complex Data" (2007-11) and "Developing crucial Statistical methods for Understanding major complex Dynamic Systems in natural, biomedical and social sciences" (2012-17).

In the last years, he was editor (Test (1996-01)) and AE in different international journals (Test (1992-96, 2002-); Estadística Española (1990-94); La Gaceta de la RSME (1998-2001); Computational Statistics (2001-2012); Statistical Inference for Stochastic Processes (2003-); Annals of Institute Mathematical Statistics (2006-); Brazilian Journal of Probability and Statistics (2013-2019), REVSTAT (2014 -)); ALEA (2019-) and JASA (2020-).

He was the organizer of many workshops or international conferences (International Seminar on Functional Estimation (1993), International Seminar on Bootstrap (1993), International Seminar in Nonparametric Inference (2000), ISI international conference on Environmental Statistics and Health (2003), International Workshop on Spatio-Temporal Modelling V (2010) (All of them in Santiago de Compostela).

Organizer of the Invited session IPM 08: Recent Advances in Spatial Statistics with Environmental Applications, (ISI; Lisbon, 2007); invited session IPM4: Semi and Non-Parametric Statistics (ISI; Durban, South Africa, 2009); invited paper session IV On Goodness of fit in the EMS conference (Toulouse, 2009).

Member organizer of the II International Workshop on Functional and Operatorial Statistics in Santander, 2011, III Int. Workshop on Functional and Operatorial Statistics in Stresa (Italy), 2014 and the II Int. Society for Nonparametric Statistics in Cádiz, 2014. He also was scientific member in other international conferences.

Professional Membership: IMS, Bernoulli Society (member of the EU Regional Committee 1998-02), ISI, Spanish and Galician Statistical Societies. Fellow of IMS (since 2017). Member of the Galician Science Academic - Real Academia Galega de Ciencias (RAGC) (since 2017). SEIO Medal (2020), SEIO-Fundación BBVA Award (2020) for the Best Methodological Contribution in the field of Statistics. [National Statistics Award](#) (2021 National Institute of Statistics).

Chair of the department of Statistics and Operational Research (SOR) 2003-08. He is a member of the academic committees of the master's and the doctorate programmes in SOR of the 3 Galician universities (coordinator 2000–07). Web page: <http://eamo.usc.es/pub/wences>

Part C. RELEVANT MERITS

C.1. Publications since 2011

- 1) Fuentes-Santos, I., González-Manteiga, W., Mateu, J. (To appear). **Testing similarity between first-order intensities of spatial point processes. A comparative study** *Communications in Statistics-Simulation and Computation*
- 2) Febrero-Bande, M., González-Manteiga, W., Oviedo, M (To appear). **Prediction Models with Functional Data for Variables related with Energy Production.** *Mathematics inspired by Applications. The European Consortium for Mathematics in Industry.* Springer
- 3) González-Manteiga, W., Martínez Miranda, María Dolores, Van Keilegom, I. (To appear). **Goodness-of-fit tests in proportional hazards models with random effects.** *Biometrical Journal*
- 4) González-Manteiga, W., Crujeiras, R.M., García-Portugués, Eduardo (To appear). **A review of goodness-of-fit tests for models involving functional data.** *TRENDS IN MATHEMATICAL, INFORMATION AND DATA SCIENCES: A TRIBUTE TO LEANDRO PARDO*
- 5) Pérez González, Ana, Cotos-Yáñez, T.R., González-Manteiga, W., Crujeiras, R.M. (2021). **Goodness-of-fit tests for quantile regression with missing responses.** *Statistical Papers.* 62. pp. 1231-1264. Springer. ISSN: 0932-5026
- 6) Fuentes-Santos, I., González-Manteiga, W., Zubelli, J. (2021). **Nonparametric spatiotemporal analysis of violent crime. A case study in the Rio de Janeiro metropolitan area.** *Spatial Statistics.* 42. pp. 100431. Elsevier. ISSN: 2211-6753
- 7) García-Portugués, Eduardo, Álvarez-Liébaná, J., Álvarez-Pérez, G., González-Manteiga, W. (2021). **A goodness-of-fit test for the functional linear model with functional response.** *Scandinavian Journal of Statistics.* 48. pp. 502–528
- 8) Fanjul Hevia, A., Pardo Fernández, Juan Carlos, González-Manteiga, W. (2021). **A non-parametric test for comparing conditional ROC curves.** *Computational Statistics and Data Analysis.* 157. pp. 107146. ELSEVIER. ISSN: 0167-9473
- 9) Conde Amboage M., Van Keilegom, I., González-Manteiga, W. (2021). **A new lack-of-fit test for quantile regression with censored data.** *Scandinavian Journal of Statistics.* 48. pp. 655-688. Wiley-Blackwell Publishing, Inc. ISSN: 0303-6898

- 10) López Pérez, A.M., Febrero-Bande, M., González-Manteiga, W. (2021). **Parametric Estimation of Diffusion Processes: A Review and Comparative Study.** *Mathematics*. 9. pp. 859. ISSN: 2227-7390
- 11) Freijeiro González, L., Febrero-Bande, M., González-Manteiga, W. (2021). **A critical review of LASSO and its derivatives for variable selection under dependence among covariates** *International Statistical Review*. Wiley. ISSN: 0306-7734
- 12) Borrajo, M.I., González-Manteiga, W., Martínez Miranda, María Dolores (2020). **Bootstrapping kernel intensity estimation for non-homogeneous point processes with spatial covariates.** *Computational Statistics & Data Analysis*. 144. pp. 10687. Elsevier
- 13) González-Manteiga, W., Heuchenne, C., Sánchez Sellero, C., Beretta, A. (2020). **Goodness-of-fit tests for censored regression based on artificial data points.** *TEST*. 29. pp. 599-615. Springer. ISSN: 1133-0686
- 14) Borrajo, M.I., González-Manteiga, W., Martínez Miranda, María Dolores (2020). **Testing for significant differences between two spatial patterns using covariates.** *Spatial Statistics*. Elsevier. ISSN: 2211-6753
- 15) Borrajo, M.I., González-Manteiga, W., Martínez Miranda, María Dolores (2020). **Bootstrapping kernel intensity estimation for inhomogeneous point processes with spatial covariates** *Computational Statistics and Data Analysis*. ISSN: 0167-9473
- 16) Bianco, A., Boente, G., González-Manteiga, W., Pérez González, Ana (2020). **Robust location estimators in regression models with covariates and responses missing at random.** *Journal of Nonparametric Statistics*. 12. pp. 915-939
- 17) García-Portugués, Eduardo, Álvarez-Liébana, J., Álvarez-Pérez, G., González-Manteiga, W. (2020). **Goodness-of-fit tests for functional linear models based on integrated projections.** *Functional and High-Dimensional Statistics and Related Fields*. pp. 107-114. Springer
- 18) Cuesta-Albertos, JA, García-Portugués, Eduardo, Febrero-Bande, M., González-Manteiga, W. (2019). **Goodness-of-fit tests for the functional linear model based on randomly projected empirical processes.** *Annals of Statistics*. 47, N° 1. pp. 439-467. IMS. ISSN: 0090-5364
- 19) Bianco, A., Boente, G., González-Manteiga, W., Pérez González, Ana (2019). **Plug-in marginal estimation under a general regression model with missing responses and covariates.** *TEST*. 28 (1). pp. 106-146. Springer. ISSN: 1133-0686
- 20) Febrero-Bande, M., Galeano, P., González-Manteiga, W. (2019). **Estimation, imputation and prediction for the functional linear model with scalar response with responses missing at random.** *Computational Statistics and Data Analysis*. 131. pp. 91--103. Elsevier. ISSN: 0167-9473
- 21) Febrero-Bande, M., González-Manteiga, W., Oviedo, M (2019). **Variable selection in Functional Additive Regression Models.** *Computational Statistics*. 34. pp. 469-487. Springer. ISSN: 0943-4062
- 22) Fuentes-Santos, I., González-Manteiga, W., Mateu, J. (2018). **A first-order ratio based nonparametric separability test for spatiotemporal point processes.** *Environmetrics*. 29 (1). pp. e2482. John Wiley & Sons Ltd. ISSN: 1180-4009
- 23) Fanjul Hevia, A., González-Manteiga, W. (2018). **A comparative study of methods for testing the equality of two or more ROC curves.** *Computational Statistics*. 33. pp. 357-377. Springer Berlin Heidelberg. ISSN: 0943-4062
- 24) García-Portugués, Eduardo, Crujeiras, R.M., González-Manteiga, W. (2018). **Smoothing-Based Tests with Directional Random Variables.** *Studies in Systems, Decision and Control. The Mathematics of the Uncertain A Tribute to Pedro Gil*. 142. pp. 175-184. Springer
- 25) González-Manteiga, W., Febrero-Bande, M., Piñeiro-Lamas, M. (2018). **Semiparametric prediction models for variables related with energy production.** *Journal of Mathematics in Industry*. 8 (7). pp. 1--16. SpringerOpen. ISSN: 2190-5983
- 26) Conde Amboage M., González-Manteiga, W., Sánchez Sellero, C. (2018). **Quantile regression: estimation and lack-of-fit tests.** *Boletín de Estadística e Investigación Operativa (BEIO)*. 32. pp. 97-116. SEIO. ISSN: 2387-1725
- 27) González-Manteiga, W., Iglesias Patiño, Carlos Luis (2018). **Utilidad de los descriptores aplicativos y su estimación en la estadística oficial.** *Estadística Española*. 60, número 196. pp. 185-217. INE
- 28) Febrero-Bande, M., Galeano, P., González-Manteiga, W. (2017). **Functional Principal Component Regression and Functional Partial Least-squares Regression: An Overview and a Comparative Study.** *International Statistical Review*. 85(1). pp. 61-83.

- 29) Monsalve-Cobis, Abelardo E., González-Manteiga, W., Stute, W. (2017). **The statistical impact of inflation on interest rates.** *Communications in Statistics-Theory and Methods.* 46(14). pp. 6754-6763. ISSN: 0361-0926
- 30) Conde Amboage M., González-Manteiga, W., Sánchez Sellero, C. (2017). **Predicting trace gas concentrations using quantile regression models** *Stochastic Environmental Research and Risk Assessment.* 31. pp. 1359-1370. Springer. ISSN: 1436-3240
- 31) González-Manteiga, W., Febrero-Bande, M., Piñeiro-Lamas, M. (2017). **Semiparametric Prediction Models for Variables Related with Energy Production.** *Progress in Industrial Mathematics at ECMI 2016.* pp. 3-15. Springer. ISBN 978-3-319-63082-3
- 32) González-Manteiga, W., Zubelli, J., Monsalve-Cobis, Abelardo E., Febrero-Bande, M. (2017). **Goodness of Fit Test for Stochastic Volatility Models.** pp. 89-104. From Statistics to Mathematical Finance. Festschrift in Honour of Winfried Stute. Springer
- 33) Fuentes-Santos, I., González-Manteiga, W., Mateu, J. (2017). **A nonparametric test for the comparison of first order structures of spatial point processes.** *Spatial Statistics.* 22. pp. 240-260. Elsevier. ISSN: 2211-6753
- 34) Borrajo, M.I., González-Manteiga, W., Martínez Miranda, María Dolores (2017). **Bandwidth selection for kernel density estimation with length-biased data.** *Journal of Nonparametric Statistics.* 29 (3). pp. 636-668. Taylor & Francis Ltd. ISSN: 1048-5252
- 35) Febrero-Bande, M., González-Manteiga, W., Oviedo, M (2017). **Variable selection in Functional Additive Regression Models.** *Functional Statistics and Related Fields.* pp. 113-122. Springer, Cham. ISSN: 978-3-319
- 36) Fuentes-Santos, I., González-Manteiga, W., Mateu, J. (2016). **Consistent smooth bootstrap kernel intensity estimation for inhomogeneous spatial Poisson point processes.** *Scandinavian Journal of Statistics.* 43(2). pp. 416-435. Wiley-Blackwell Publishing, Inc. ISSN: 0303-6898
- 37) González-Manteiga, W., Martínez Miranda, María Dolores, Van Keilegom, I. (2016). **Goodness-of-fit Test in Parametric Mixed Effects Models based on Estimation of the Error Distribution.** *Biometrika.* 103 (1). pp. 133-146
- 38) Boubeta-Martínez, M., Lombardía, M. J., González-Manteiga, W., Marey Pérez, Manuel F. (2016). **"Burned area prediction with semiparametric models".** *International Journal of Wildland Fire.* 25. pp. 669-678. ISSN: 1049-8001
- 39) Cotos-Yáñez, T.R., Pérez González, Ana, González-Manteiga, W. (2016). **Model checks for nonparametric regression with missing data: A comparative study.** *Journal of Statistical Computation and Simulation.* 86. Taylor & Francis Ltd. ISSN: 0094-9655
- 40) García-Portugués, Eduardo, Van Keilegom, I., Crujeiras, R.M., González-Manteiga, W. (2016). **Testing parametric models in linear-directional regression** *Scandinavian Journal of Statistics.* 43. pp. 1178-1191. Wiley-Blackwell Publishing, Inc. ISSN: 0303-6898
- 41) Inácio, V., De Carvallho, m., Alonzo, T.A., González-Manteiga, W. (2016). **Functional partial area under the curve regression with an application to metabolic syndrome diagnosis.** *Annals of Applied Statistics.* 10(3). pp. 1472-1495. ISSN: 1932-6157
- 42) Bianco, A., Boente, G., González-Manteiga, W., Pérez González, Ana (2015). **Robust inference in partially linear models with missing responses.** *Statistics and Probability Letters.* 97. pp. 88-98. Elsevier. ISSN: 0167-7152
- 43) Ojeda, J. L., González-Manteiga, W., Cristóbal Cristóbal, José Antonio (2015). **Testing regression models with selection--biased data.** *Annals of the Institute of Statistical Mathematics.* 67 (3). pp. 411-436. Springer Heidelberg. ISSN: 0020-3157
- 44) García-Portugués, Eduardo, Crujeiras, R.M., González-Manteiga, W. (2015). **Central limit theorems for directional and linear random variables with applications.** *Statistica Sinica.* 25. pp. 1207-1229. Statistica Sinica. ISSN: 1017-0405
- 45) Saavedra-Nieves, P., González-Manteiga, W., Rodríguez-Casal, A. (2015). **A comparative simulation study of data-driven methods for estimating density level sets.** *Journal of Statistical Computation and Simulation.* 86. pp. 236-251. Taylor & Francis Ltd. ISSN: 0094-9655
- 46) Conde Amboage M., Sánchez Sellero, C., González-Manteiga, W. (2015). **A lack-of-fit test for quantile regression models with high-dimensional covariates.** *Computational Statistics and Data Analysis.* 88. pp. 128-138. Elsevier Science Bv. ISSN: 0167-9473
- 47) González-Manteiga, W., Crujeiras, R.M. (2015). **Discussion on the paper "Analysis of spatio-temporal mobile phone data: a case study in the metropolitan area of Milan" by P. Secchi, S. Vantini and V. Vitelli.** *Statistical Methods & Applications.* 24. pp. 325-327. Springer Berlin Heidelberg. ISSN: 1618-2510

- 48) Boente, G., González-Manteiga, W., Rodríguez, D. (2014). **Goodness-of-fit test for directional data**. *Scandinavian Journal of Statistics*. 41(1). pp. 259–275. Wiley-Blackwell Publishing, Inc. ISSN: 0303-6898
- 49) García-Portugués, Eduardo, Barros, A. M. G., Crujeiras, R.M., González-Manteiga, W., Pereira, J. M. C. (2014). **A test for directional-linear independence, with applications to wildfire orientation and size**. *Stochastic Environmental Research and Risk Assessment*. 28. pp. 1261-1275. Springer. ISSN: 1436-3240
- 50) García-Portugués, Eduardo, González-Manteiga, W., Febrero-Bande, M. (2014). **A goodness-of-fit test for the functional linear model with scalar response**. *Journal of Computational and Graphical Statistics*. 23. pp. 761-778. Elsevier Science Bv. ISSN: 0377-0427
- 51) Saavedra-Nieves, P., González-Manteiga, W., Rodríguez-Casal, A. (2014). **Level Set Estimation**. In Akritas, M.G. et al., editors, **Topics in Nonparametric Statistics: Proceedings of the First Conference of the International Society for Nonparametric Statistics**. 74. pp. 299-307. Springer. ISSN: 2194-1009
- 52) García-Portugués, Eduardo, Crujeiras, R.M., González-Manteiga, W. (2013). **Exploring wind direction and SO₂ concentration by circular-linear density estimation**. *Stochastic Environmental Research and Risk Assessment*. 27. pp. 1055-1067. Springer. ISSN: 1436-3240
- 53) Boente, G., Cao, R., González-Manteiga, W., Rodríguez, D. (2013). **Testing in generalized partially linear models: A Robust approach**. *Statistics & Probability Letters*. 83. pp. 203-212. Elsevier Science Bv. ISSN: 0167-7152
- 54) Febrero-Bande, M., González-Manteiga, W. (2013). **Generalized Additive Models for Functional Data** *TEST*. 22, 2. pp. 278-292. Springer. ISSN: 1133-0686
- 55) González-Manteiga, W., Crujeiras, R.M. (2013). **"An updated review of Goodness-of-Fit tests for regression models"**. *TEST*. 22. pp. 361-447. Springer Verlag. ISSN: 1133-0686
- 56) García-Portugués, Eduardo, Crujeiras, R.M., González-Manteiga, W. (2013). **Kernel density estimation for directional-linear data**. *Journal of Multivariate Analysis*. 121. pp. 152-175. Elsevier Inc. ISSN: 0047-259X
- 57) González-Manteiga, W., Lombardía, M. J., Martínez Miranda, María Dolores, Sperlich, S. (2013). **Kernel Smoothers and Bootstrapping for Semiparametric Mixed Effects Models**. *Journal of Multivariate Analysis*. 114. pp. 288-302. Elsevier Inc. ISSN: 0047-259X
- 58) Fuentes-Santos, I., Marey Pérez, Manuel F., González-Manteiga, W. (2013). **Forest fires Spatial patterns analysis in Galicia (NW Spain)**. *Journal of Environmental Management*. 15. pp. 30-42. Elsevier
- 59) Fernández, G., Barreal, M.L., Pombo, M.B., Ginzo-Villamayor, M.J., González-Manteiga, W., Prieto, A., Díaz, J.M., Lago, N., González-Palencia, J. (2013). **Evolución da etiología das mamites bovinas en galicia**. *Afriga*. 104. pp. 46-52
- 60) Fernández, G., Barreal, M.L., Pombo, M.B., Ginzo-Villamayor, M.J., González-Manteiga, W., Prieto A., Lago, N., González-Palencia, J. (2013). **Comparison of the epidemiological behavior of mastitis pathogens by applying time-series analysis in results of milk samples submitted for microbiological examination**. *Veterinary Research Communications*. 37. pp. 259-267
- 61) Pardo Seco, J, Amigo, J., González-Manteiga, W., Salas A. (2013). **A generalized model to estimate the statistical power in mitochondrial disease studies involving 2xk tables**. *PLoS ONE*. 8(9). Public Library of Science. ISSN: 1932-6203
- 62) González-Manteiga, W., Lombardía, M. J., Martínez Miranda, María Dolores, Sperlich, S. (2013). **Kernel Smoothers and Bootstrapping for Semiparametric Mixed Effects Models**. *Journal of Multivariate Analysis*. 114. pp. 288-302. Elsevier Inc. ISSN: 0047-259X
- 63) Ferraty F, González-Manteiga, W., Martínez Calvo, Adela, Vieu, Philippe (2012). **Presmoothing in functional linear regression** *Statistica Sinica*. 22. pp. 69-94. *Statistica Sinica*. ISSN: 1017-0405
- 64) González-Manteiga, W., Crujeiras, R.M. (2012). **Recent advances in spatio-temporal stochastic modelling**. *Environmetrics*. 23. pp. 1-2. John Wiley & Sons Ltd. ISSN: 1180-4009
- 65) Inácio, V., González-Manteiga, W., Febrero-Bande, M., Gude-Sampedro, F., Alonzo, T.A., Cadarso Suárez, Carmen María (2012). **Extending induced ROC methodology to the functional context**. *Biostatistics*. 13 (4). pp. 594-608. Oxford Journals. ISSN: 1465-4644
- 66) González-Manteiga, W., Henry, G., Rodríguez, D. (2012). **Partly linear models on Riemannian manifolds**. *Journal of Applied Statistics*. 39(8). pp. 1797-1809
- 67) González-Manteiga, W., Porcu, E. (2012). **Discussion of the paper: Optimun design of experiments for statistical inference**. *Journal of The Royal Statistical Society Series C-*

Applied Statistics. 61, Part 3. pp. 345-401. Wiley-Blackwell Publishing, Inc. ISSN: 0035-9254

- 68) Chernick, Michael R., González-Manteiga, W., Crujeiras, R.M., Barrios, Erniel B. (2011). **Bootstrap methods**. *International Encyclopedia of Statistical Science*. pp. 169-174. Springer
- 69) González-Manteiga, W., Pardo Fernández, Juan Carlos, Van Keilegom, I. (2011). **ROC curves in nonparametric location-scale regression models**. *Scandinavian Journal of Statistics*. 38. pp. 169-184. Wiley-Blackwell Publishing, Inc. ISSN: 0303-6898
- 70) Martínez Calvo, Adela, González-Manteiga, W. (2011). **Bootstrap in functional linear regression**. *Journal of Statistical Planning and Inference*. 141. pp. 453-461. Elsevier Science Bv. ISSN: 0378-3758
- 71) Bianco, A., Boente, G., González-Manteiga, W., Pérez González, Ana (2011). **Asymptotic behaviour of robust estimators in partially linear models with missing responses: The effect of estimating the missing probability on the simplified marginal estimators**. *TEST*. 20(3), 524-548. Springer. ISSN: 1133-0686
- 72) González-Manteiga, W., Crujeiras, R.M. (2011). "A general view of the goodness-of-fit tests for statistical models". *Modern Mathematical Tools and Techniques in Capturing Complexity*. pp. 3-17. Springer Series in Synergetics
- 73) Monsalve-Cobis, Abelardo E., González-Manteiga, W., Febrero-Bande, M. (2011). **Goodness-of-fit test for interest rate models: An approach based on empirical processes**. *Computational Statistics & Data Analysis*. 55 (12). pp. 3073–3092. Elsevier Science Bv. ISSN: 0167-9473
- 74) González-Manteiga, W., Vieu, Philippe (2011). **Methodological Richness of Functional Data Analysis**. In: *Learning and Data Science*. (Editors: Bottou, L. et al). Chapman&Hall

C.2. Monographs since 2011

- **From Statistics to Mathematical Finance: Festschrift in Honour of Winfried Stute**, 1st ed. 2017 Edition, Switzerland. Springer / D Ferger; Wenceslao González Manteiga editors (ISBN: 3319845381).
- **Nonparametric Statistics: 2nd Conference of the International Society for Nonparametric Statistics (ISNPS)**, 2016, Cádiz, June / Ricardo Cao, Wenceslao González Manteiga, Juan Romo editors (ISBN: 9783319823881).

C.3. Research projects and grants since 2011.

International:

- (Ref.: ITMATI-C52-2017 - 768575). **Predictive Cognitive Maintenance Decision Support System (PreCoM)**. *Horizon 2020*. PI: Manuel Febrero Bande (USC) and Jacobo de Uña Álvarez (UVigo). *From*: 01-11-2017, *to*: 28-02-2021. Budget: 302.250€ (call Horizon 2020). Type of participation: researcher
- (Ref.: 3E120297). **Developing crucial Statistical methods for Understanding major complex Dynamic Systems in natural, biomedical and social sciences**. *Interuniversity Attraction Pole (IAP). Phase VII. Belgian Science Policy*. PI: Iven Van Mechelen (Université catholique de Louvain). *From*: 01-04-2012, *to*: 31-03-2017. Budget: 25000€ for the USC node. Type of participation: PI
- (Ref.: ENER/FPVII314704/PLEEC). **Planning for Energy Efficient Cities (PLEEC)**. *Comisión Europea*. PI: Juan Enrique Arias Rodríguez. *From*: 01-04-2013, *to*: 31-03-2016. Budget € Type of participation: researcher
- (Ref.: P6/03). **Statistical Analysis os Association and Dependence in Complex Data. Interuniversity Attraction Pole (IAP)**. *Interuniversity Attraction Pole (IAP). Phase IV. Belgian Science Policy*. PI: Léopold Simar (Université catholique de Louvain). *From*: 01-01-2007, *to*: 31-12-2011. Budget: 2850000€- (25000€ for the USC node). Type of participation: PI

National:

- (Ref.: PID2020-116587GB-I00). **Dinámica compleja e inferencia no paramétrica.** AEI-Agencia Estatal de la Investigación. PI: Rosa M^a Crujeiras Casais and Wenceslao González Manteiga (USC). From: 01-09-2021, to: 31-08-2024. Budget: 258335€
- (Ref.: MTM2016-76969-P). **Modelización no paramétrica de dinámicas y dependencias en sistemas complejos.** Ministerio de Economía y Competitividad - Agencia Estatal de Investigación. Convocatoria: Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia, Subprograma Estatal de Generación de Conocimiento, en el marco del Plan Estatal de Investigación Científica y Técnica y de Innovación 2013-2016. PI: Wenceslao González Manteiga and Rosa M^a Crujeiras Casais (USC). From: 30-12-2016, to: 29-12-2020. Budget: 190454€
- (Ref.: MTM2016-81745-REDT). **Red temática matemática-industria** (Research network). AEI-Agencia Estatal de la Investigación. PI: Peregrina Quintela Estévez. From: 01-07-2017, to: 30-06-2019. Budget 11000€ Type of participation: researcher
- (Ref.: MTM2013-41383-P). **Inferencia no paramétrica: modelización, estimación, contrastes y aplicaciones.** Ministerio de Economía y Competitividad Convocatoria: Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia, Subprograma Estatal de Generación de Conocimiento, en el marco del Plan Estatal de Investigación Científica y Técnica y de Innovación 2013-2016. PI: Wenceslao González Manteiga and Rosa M^a Crujeiras Casais (USC). From: 01-01-2014, to: 31-12-2016. Budget: 119743,75€
- (Ref.: MTM2014-52555-REDT). **Red temática matemática-industria.** Red temática matemática-industria (Research network). Ministerio de Económica y Competitividad. Modalidad Redes de Excelencia. PI: Peregrina Quintela Estévez. From: 01-12-2014, to: 30-11-2016. Budget 25880€ Type of participation: researcher
- (Ref.: MTM2008-03010). **Metodologías y aplicaciones en estadística semiparamétrica, funcional y espacio-temporal.** Ministerio de Ciencia e Innovación. Convocatoria: Proyectos de Investigación Fundamental no Orientada 2008. PI: Wenceslao González Manteiga (USC). From: 01-01-2009, to: 31-12-2013. Budget: 335049€

Regional:

The researcher is PI of the Galician research group Optimization models, decision, statistics and applications (MODESTYA), <http://eamo.usc.es/pub/gi1914/>. This group has get funding in all regional competitive calls as a competitive reference group. (ED431C 2021/24 - 400000€, ED431C 2017/38 - 400000€, 2013-PG064 - 259000€).

- (Ref.: ED431C 2021/24). **Consolidación e estruturación de unidades de investigación (grupos competitivos).** Consellería de Cultura, Educación e Universidade. PI: Wenceslao González Manteiga. From: 01-01-2021, to: 31-12-2024. Budget 400000€
- (Ref.: ED431C 2017/38). **Consolidación e estruturación de unidades de investigación (grupos competitivos).** Consellería de Cultura, Educación e Ordenación Universitaria. PI: Wenceslao González Manteiga. From: 01-01-2017, to: 31-12-2020. Budget 400000€
- **Estudio matemático, estadístico y dinámico de la epidemia COVID-19.** (VICERREITORÍA DE INVESTIGACIÓN E INNOVACIÓN). Universidade de Compostela. PI: Wenceslao González Manteiga. From: 01-07-2020, to: 31-12-2020. Budget 18000€
- (Ref.: ED341D R2016/051). **Rede Tecnolóxica de Matemática Industrial (Rede TMATI).** (Research network). Consellería de Cultura, Educación e Ordenación Universitaria. IP: Alfredo Bermúdez de Castro. From: 01-01-2017, to: 31-12-2018. Budget 120000€ Type of participation: researcher
- (Ref.: ED341D R2016/011). **Tecnoloxías e análise dos datos lingüísticos.** (Research network). Consellería de Cultura, Educación e Ordenación Universitaria. IP: Xulio Sousa Fernández. From: 01-01-2017, to: 31-12-2018. Budget 120000€ Type of participation: researcher
- (Ref.: 2013-PG064). **Consolidación e estruturación de unidades de investigación (grupos competitivos).** Consellería de Educación e Ordenación Universitaria. PI: Wenceslao González Manteiga. From: 25-10-2013, to: 31-12-2016. Budget 259000€

- **Tecnoloxías e análise dos datos lingüísticos.** (Research network). *Consellería de Cultura, Educación e Ordenación Universitaria*. PI: Francisco Dubert García. *From:* 01-01-2014, *to:* 31-12-2015. Budget 120000€. Type of participation: researcher
- **Rede Tecnolóxica de Matemática Industrial (Rede TMATI).** (Research network). *Consellería de Cultura, Educación e Ordenación Universitaria*. PI: Peregrina Quintela Estévez. *From:* 01-01-2014, *to:* 31-12-2015. Budget 120000€. Type of participation: researcher
- **Rede Tecnolóxica de Matemática Industrial (Rede ITMATI).** (Research network). *Consellería de Cultura, Educación e Ordenación Universitaria*. PI: Peregrina Quintela Estévez. *From:* 01-10-2012, *to:* 31-12-2013. Budget 120000€. Type of participation: researcher
- **IEMath-Galicia.** (Research network). *Consellería de Cultura, Educación e Ordenación Universitaria*. PI: Juan José Nieto Roig. *From:* 01-10-2012, *to:* 31-12-2013. Budget 120000€. Type of participation: researcher
- **Tecnoloxías e análise dos datos lingüísticos.** (Research network). *Consellería de Cultura, Educación e Ordenación Universitaria*. PI: Francisco Dubert García. *From:* 01-10-2012, *to:* 31-12-2013. Budget 120000€. Type of participation: researcher
- (Ref.: 10MDS207015PR). **MODELOS DE INFERENCIA NON PARAMÉTRICA PARA INDICADORES MEDIOAMBIENTAIS.** *Xunta de Galicia*. PI: Wenceslao González Manteiga. *From:* 01-10-2012, *to:* 22-12-2013. Budget 38318€
- **Consolidación e estruturación de unidades de investigación (grupos competitivos).** *Consellería de Educación e Ordenación Universitaria*. PI: Wenceslao González Manteiga. *From:* 15-09-2010, *to:* 31-12-2012. Budget 168000€

C.4. Contracts.

- **Mantenimiento de la aplicación SIPEI 2020, 2021 e 2022.** *Endesa Medios y Sistemas, S.L.* PI: Wenceslao González Manteiga. *From:* 24-02-2021, *to:* 28-02-2022. Budget €
- **CIVIL UAVs Initiative.** (ITMATI). *Babcock Mission Critical Services Fleet Management S.A.* PI: Wenceslao González Manteiga. *From:* 01-10-2018, *to:* 30-06-2021. Budget 218921,03€
- **Renovación do mantemento da aplicación SIPEI 2020 para predicción estatística de inmisións na central As Pontes.** *Endesa Medios y Sistemas, S.L.* PI: Wenceslao González Manteiga. *From:* 24-02-2020, *to:* 23-02-2021 Budget: 33.900€
- **Renovación do mantemento da aplicación SIPEI para a predicción estatística de inmisións na central As Pontes.** *Endesa Medios y Sistemas, S.L.* PI: Wenceslao González Manteiga. *From:* 18-01-2019, *to:* 31-12-2019. Budget: 33.900€
- **Misiones críticas de emergencias con medios aéreos tripulados y no tripulados en vuelo cooperativo (ENJAMBRE).** (ITMATI). *Coremain S.L.U.* PI: Wenceslao González Manteiga. *From:* 01-07-2014, *to:* 31-07-2018. Budget: 275000€ (call CIEN 2014).
- **SIPEI 2017-2018.** *ENDESA GENERACIÓN S.A.* PI: Wenceslao González Manteiga. *From:* 30-06-2017, *to:* 29-06-2018. Budget 34000€
- **Sistema de predicción estatística de inmisións (SIPEI) 2016-2017.** *ENDESA GENERACIÓN S.A.* PI: Wenceslao González Manteiga. *From:* 30-06-2016, *to:* 30-06-2017. Budget 34000€
- **SIPEI 2015-2016.** *ENDESA GENERACIÓN S.A.* PI: Wenceslao González Manteiga. *From:* 09-06-2015, *to:* 30-06-2016. Budget 34000€
- **SIPEI 2014-2015.** *ENDESA GENERACIÓN S.A.* PI: Wenceslao González Manteiga. *From:* 01-09-2014, *to:* 30-04-2015. Budget 25000€
- **Tecnoloxías avanzadas para la extinción de grandes incendios forestales (LUMES).** (ITMATI). *Coremain S.L.U.* PI: Wenceslao González Manteiga. *From:* 03-04-2013, *to:* 31-12-2014. Budget: 123.445,06€ (call ININTERCONNECTA 2013).
- **SIPEI 2013-2014.** *ENDESA GENERACIÓN S.A.* PI: Wenceslao González Manteiga. *From:* 01-11-2013, *to:* 31-07-2014. Budget 25000€
- **Plataforma independente operativa para equipos de electrónica de consumo (Platino).** *Cinfo, Contenidos Informativos Personalizados, S.L.U.* PI: Manuel Febrero Bande. *From:* 24-05-2012, *to:* 31-05-2014. Budget 4000€. Type of participation: researcher

- **Servicios de Consultoría Científica en el ámbito de la Matemática Industrial.** (ITMATI). *Repsol*. PI: Wenceslao González Manteiga. *From:* 01-12-2013, *to:* 01-02-2014. Budget 1701€
- **SIPEI 2013.** *ENDESA*. PI: Wenceslao González Manteiga. *From:* 01-11-2012, *to:* 31-10-2013. Budget 29000€
- **SIPEI 2012.** *ENDESA*. PI: Wenceslao González Manteiga. *From:* 01-11-2011, *to:* 31-10-2012. Budget 29000€
- **SIPEI 2011.** *ENDESA*. PI: Wenceslao González Manteiga. *From:* 01-11-2010, *to:* 31-10-2011. Budget 39500€

It should be noted that the researcher has been a PI for more than 30 years of projects with As Pontes Power Plant (SIPEI). An average of one project per year has been signed.

C.5. Invited Talks

- Invited talks at Spanish Universities: Oviedo, Coruña, Santander, Bilbao, Burgos, Pamplona, Barcelona, Gerona, Valladolid, Madrid, Zaragoza, Valencia, Granada, Málaga, Almería, Sevilla and Las Palmas de Gran Canaria.
- Invited talks at the Oberwolfach Math. Research Institute, in 1989, 1995 and 2016.
- Invited talks at foreign Universities: Giessen (Germany), CORE (Belgium), Universities of Montreal and Mac Gill (Canada), Limburg University (Belgium), Berlin (Germany), University of Sao Paulo (Brasil), University of Buenos Aires (Argentina), London School of Economics (England), Penn State University (USA), Paul Sabatier (Toulouse, France), Institut of Statistics of Louvain la Neuve, Universities of Witwatersrand and Pretoria in South Africa, ITAM in Mexico DF, Mexico. University of Davis in California, USA, Universidade de Lisboa, Universidade de Porto, Universidade de Coimbra.
- Invited talks at meetings: Joint Statistical Meeting and International Conference on Statistics, Probability and related areas, Cochin, India, 2007, The Pyrenees International Workshop on Statistics, Probability and Operations Research, Jaca, Spain, 2007, The Barcelona Conference on Asymptotic Statistics 2008, CRM, Barcelona, 2008, fourth workshop on spatiotemporal modelling of environmental processes, Alghero, Italy, 2008, IASC2008, Yokohama, Japan, 2008, 57th Session of the ISI, Durban, South Africa, 2009. XXXII Congreso Nacional de Estadística e I.O La Coruña, Spain, 2010, The 19th International Conference on Computational Statistics. COMPSTAT2010, XVIII Congreso Anual da Sociedade Portuguesa de Estatística, Sao Pedro do Sul, Portugal, 2010. Graybill 2011 conference in Modern Nonparametric Methods, USA. The Second Taihu International Statistics Forum, Su Zhou, China 2013. 5th Iberian Mathematical Meeting, Aveiro (Portugal), 2014. First Portuguese-Galician Meeting on Ecological and Environmental Statistics (EES2014), Vila Real (Portugal), 2014. 23th Annual Meeting Belgian Statistical Society. Antwerp (Belgium), 2015. 9th International Conference of the ERCIM WG on Computational and Methodological Statistics (CMStatistics 2016) Sevilla, Spain, 2016. 4th Conference of the International Society for Nonparametric Statistics. Salerno, Italia, 2018.

Contributed Talks: about 500 contributed talks at meetings.

C.6. Participation in evaluation tasks

- 2016-present - Member of the Executive Committee of Evaluation and Creation. (DEVA) of Andalucía.
- 2014- present - International member of the commission that evaluates degree, master and doctoral degrees in Portugal Agência de Avaliação e Acreditação do Ensino Superior
- 2013 - Evaluation of doctoral programs for the Andalucía Quality Agency.
- 2010-14 - Member of the Science Research Evaluation Committee of the Agencia per a la Qualitat del sistema Universitari de Catalunya (AQU)
- 2008-09 - Member of Advisory Committee 1 (Mathematics and Physics) for the national evaluation of research activity (six years of research)
- 2007-11 Member of the National Accreditation Commission for access to the University Professorship in Engineering and Architecture, December 2007-May 2011.
- 2005 - Member of the panel of three experts who evaluated the Belgian research network IAP network P5/24 in the field of statistics.
- 2005 - Evaluator of the Degree in Applied Mathematics (Statistics and Operations Research) of the Universidade do Minho.
- 2003-05 - Member of the National Agency of the evaluation of the research in Mathematics.