

Curriculum vitae

Name: Juan Antonio Cuesta Albertos

Address: Depto. Matemáticas, Estadística y Computación
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Spain
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6.10.1955

born in Segovia (Spain)

1.10.72-7.7.77

study Mathematics in the Universidad de Valladolid (Spain).

15.6.79

present my Ph. D. Thesis "Una medida de centralización para variables aleatorias" under the supervision of Prof. Miguel Martin Diaz.

1.10.77-26.10.82 Professor of Mathematics in the Colegio Universitario de Burgos, Spain.

27.10.82-9.7.87

Professor of Statistics in the Universidad de Cantabria, Spain.

since 10.7.87

Full Professor of Statistics in the Universidad de Cantabria, Spain.

scientific interest

I am/(have been) interested in the following areas:

- a) k -means
- b) p -means
- c) Consistency
- d) Applications of the almost sure representation of the convergence in distribution
- e) Monge-Kantorovich transportation problem
- f) Asymptotic properties of the bootstrap
- g) Robustness. Impartial trimings.
- h) Statistical depths
- i) Functional data analysis
- j) Random projections in multidimensional and functional spaces

publications

1982

CUESTA-ALBERTOS, J. A. and MATRAN, C.
Notas sobre la continuidad de la p -esperanza.
Publicaciones de la Sección de Matemáticas, Universidad de Valladolid **4**,
68-73.

1983

CUESTA-ALBERTOS, J. A. and MATRAN, C.
Semirecorrido condicionado (expresión asintótica de la r -esperanza
condicionada).
Trabajos de Estadística e Investigación Operativa **34**, 54-60.

CUESTA-ALBERTOS, J. A. and MATRAN, C.
Regresión significativa en mediana.
Publicaciones de la Sección de Matemáticas, Universidad de Valladolid **6**,
125-137.

CUESTA-ALBERTOS, J. A. and MATRAN, C.
Sobre la Ley Fuerte de los Grandes Números para una medida de
centralización bivaluada.
Cuadernos de Bioestadística y sus aplicaciones Informáticas **1**, 463-467.

1984

CUESTA-ALBERTOS, J. A.

Medidas de Centralización Multidimensionales (Ley Fuerte de los Grandes Números).

Trabajos de Estadística e Investigación Operativa **35**, 3-16.

1986

CUESTA-ALBERTOS, J. A. and MATRAN, C.

p-predictions of Vector Valued Random Variables.

Publicaciones de la Sección de Matemáticas, Universidad de Valladolid **9**, 85-103.

CUESTA-ALBERTOS, J. A. and MATRAN, C.

Lp-Linear Regression, Consistency and Significant Regression in Median.

Journal of Statistical Planning and Inference **13**, 15-30.

CUESTA-ALBERTOS, J. A. and MATRAN, C.

Strong Laws of Large Numbers in abstract spaces via Skorohod's representation theorem.

Sankhyá Ser. A **48**, 98-103.

1987

CUESTA-ALBERTOS, J. A. and MATRAN, C.

Asymptotic behavior of p-predictions for vector valued random variables.

Proceedings American Mathematical Society **100**, no. 4, 716-720 .

1988

CUESTA-ALBERTOS, J. A. and MATRAN, C.

Strong convergence of weighted sums of random elements through the equivalence of sequences of distributions.

Journal of Multivariate Analysis **25**, 311-322.

CUESTA-ALBERTOS, J. A. and MATRAN, C.

The Strong Law of Large Numbers for k-means and best possible nets of Banach valued random variables.

Probability Theory and Related Fields **78**, 523-534.

1989

CUESTA-ALBERTOS, J. A. and MATRAN, C.

Uniform consistency of r-means.

Statistical and Probability Letters **6**, 65-71.

CUESTA-ALBERTOS, J. A. and MATRAN, C.

Conditional bounds and best L_∞ -approximations in probability spaces.

Journal of Approximation Theory **56**, 1-12 .

CUESTA-ALBERTOS, J. A. and MATRAN, C.

Notes on the Wasserstein metric in Hilbert spaces.

Annals of Probability **17**, 1264-1276.

CUESTA-ALBERTOS, J. A.

Comentario al artículo: Una revisión de resultados recientes en estimación de densidades; por Antonio Cuevas.

Estadística Española, **31**, nº 120, 47-50.

1990

CUESTA-ALBERTOS, J. A. and MATRAN, C.

A short proof of the Law of Convergence of Types.

Sankhyá, Ser. A, **52**, 259-260.

1991

CUESTA-ALBERTOS, J. A. and MATRAN, C.

On the asymptotic behavior of sums of pairwise independent random variables.

Statistics and Probability Letters **11**, 201-210.

CUESTA-ALBERTOS, J.A. y MATRAN, C.

Some properties of p-predictions, $1 \leq p < \infty$, for Banach-valued random elements.

Aportaciones Matemáticas en honor del Profesor Victor Manuel Onieva Aleixandre. 147-154. Universidad de Cantabria.

1992

CUESTA-ALBERTOS, J. A. and MATRAN, C.

A review on strong convergence of weighted sums of random elements based on Wasserstein metrics.

Journal of Statistical Planning and Inference, **30**, 3599-370.

CUESTA-ALBERTOS, J.A., DOMINGUEZ, S. and MATRAN, C.

On the consistency of the L_p -Isotonic Regression.

Theory of Probability and its Applications, **37**, 1, 129-132.

1993

CUESTA-ALBERTOS, J. A. and TUERO, A.

A characterization of the Monge-Kantorovich mass transference problem.

Statistical and Probability Letters, **16**, 147-152

CUESTA-ALBERTOS, J. A., RUSCHENDORF, L. and TUERO, A.

Optimal coupling of multivariate distributions and stochastic processes.

Journal of Multivariate Analysis, **46**, 335-361.

1994

CUESTA-ALBERTOS, J. A. y MATRAN, C.

Stochastic convergence through Skorohod representation theorems and Wasserstein distances.

Rendic. Circol. Matem. di Palermo. Ser. II, **35**, 89-113.

CUESTA-ALBERTOS, J. A., DOMINGUEZ-MENCHERO, J. S. and MATRAN, C.

Some stochastic on monotone functions.

Journal of Computational and Applied Mathematics **55**, 165-182.

1995

CUESTA-ALBERTOS, J.A., GORDALIZA, A. and MATRAN, C.

Trimmed k-means and the Cauchy Mean-Value property.
In *New trends in Probability and Statistics. Vol 3 Multivariate Statistics and Matrices in Statistics. Proceedings of the 5th Tartu Conference*. TEV, Vilnius. pp. 247-265.

CUESTA-ALBERTOS, J.A., DOMINGUEZ-MENCHERO, J. S. and MATRAN, C.
Consistency of L_p -best monotone approximations.
Journal of Statistical Planning and Inference **47**, 295-318.

1996

ARENAL-GUTIERREZ, E., MATRAN, C and CUESTA-ALBERTOS, J.A.
On the conditional strong law of large numbers for the bootstrap mean.
Statistical and Probability Letters **27**, 49-60,

ARENAL-GUTIERREZ, E., MATRAN, C and CUESTA-ALBERTOS, J.A.
Unconditional Glivenko-Cantelli-type theorems and weak laws of large numbers for bootstrap.
Statistical and Probability Letters **26**, 365-275.

CUESTA-ALBERTOS, J.A, MATRAN, C and TUERO-DIAZ, A.
On lower bounds for the L_2 -Wasserstein metric in a Hilbert space.
Journal of Theoretical Probability, **9**, 263-283.

CUESTA-ALBERTOS, J.A, MATRAN, C, RACHEV, S.T. and RÜSCHENDORF, L.
Mass transportation Problems in Probability Theory.
Mathematical Scientist, **21**, 1-39.

1997

CUESTA-ALBERTOS, J.A, MATRAN, C and TUERO-DIAZ, A.
Optimal Transportation Plans and Convergence in Distribution.
Journal of Multivariate Analysis, **60**, 72-83.

CUESTA-ALBERTOS, J.A, GORDALIZA, A. and MATRAN, C.
Trimmed k-means: An attempt to robustify quantizers.
Annals of Statistics, **25**, No. 2, 553-576.

CUESTA-ALBERTOS, MATRAN, C. and TUERO, A.

On the Monotonicity of Optimal Transportation Plans.
Journal of Mathematical Analysis and Applications, **215**, 86-94.

1998

CUESTA-ALBERTOS, J.A, GORDALIZA, A. and MATRAN, C.
Trimmed best k-nets: A robustified version of an L_\bullet -based clustering method.
Statistics and Probability Letters, **36**, 401-413.

CUESTA-ALBERTOS, J.A. y MATRAN, C.
The asymptotic distribution of the bootstrap sample mean of an infinitesimal array.
Annales de l'Institut Henri Poincaré, **34**, 23-48.

CUESTA-ALBERTOS, J.A, GORDALIZA, A. y MATRAN, C.
On the geometric behaviour of multidimensional location measures.
Journal of Statistical Planning and Inference, **67**, 191-208.

1999

CUESTA-ALBERTOS, J.A. y MATRAN, C.
Extensions of consistency results related to the stochastic order.
Sankhya, **61**, 62-71.

del BARRIO, E., CUESTA-ALBERTOS, J.A. y MATRAN, C.
Necessary conditions for the Bootstrap of the mean of a triangular array.
Annales de l'Institut Henri Poincaré, **35**, 371-386.

del BARRIO, E., CUESTA-ALBERTOS, J.A., MATRAN, C. and RODRÍGUEZ-RODRÍGUEZ, J.M.
Tests of goodness of fit based on the L_2 -Wasserstein distance.
The Annals of Statistics, **27**, 1230-1239.

2000

del BARRIO, E., CUESTA-ALBERTOS, J.A. y MATRAN, C.
Contributions of empirical and quantile processes to the asymptotic theory of goodness-of-fit tests (with discussion).
Test, **9**, 1-96.

2001

BAÍLLO, A. CUESTA-ALBERTOS, J.A. y CUEVAS, A.
Convergence rates in nonparametric estimation of level sets,
Statistical and Probability Letters, **53**, 27-35.

2002

del BARRIO, E., CUESTA-ALBERTOS, J.A. y MATRAN, C.
Asymptotic stability of the bootstrap sample mean.
Stochastic Processes and their Applications, **97**, 289-306.

CUESTA-ALBERTOS, J.A., MATRAN, C. and RODRÍGUEZ-
RODRÍGUEZ, J.M.
Shape of a distribution through the L2-Wasserstein distance.
Proceedings of “*Distributions with given marginals and statistical
modeling*”, Kluwer, Ac. Pub. Eds. C. M. Cuadras, J. Fortiana y J.A.
Rodríguez-Lallena, 51-62.

CUESTA-ALBERTOS, J.A, GARCÍA-ESCUADERO, L.A. and
GORDALIZA, A
On the asymptotics of Trimmed best k-nets.
Journal of Multivariate Analysis, **82**, 486-516.

2003

CUESTA-ALBERTOS, J.A., MATRAN, C. and RODRÍGUEZ-
RODRÍGUEZ, J.M.
Approximation to probabilities through uniform laws on convex sets.
Journal of Theoretical Probability, **16**, 363-376.

CUESTA-ALBERTOS, J.A., WSCHEBOR, M.
Some remarks on the condition number of a real random square matrix
Journal of Complexity, **19**, 548-554.

2004

CUESTA-ALBERTOS, J.A., WSCHEBOR, M.

Condition numbers and Extreme of Random Fields
Seminar on stochastic analysis, random fields and applications IV. Eds. R. Dalang, M. Dozzi, F. Russo. Birkhäuser Progress in Probability Series. **58**, pp. 69-82.

2006

CUESTA-ALBERTOS, J.A., FRAIMAN, R. (2006)
Impartial trimmed means for functional data
Data Depth: Robust Multivariate Statistical Analysis, Computational Geometry & Applications. Eds. R. Liu, R. Serfling and D. Souvaine. American Mathematical Society in DIMACS Series. **72**, 121-145

CUESTA-ALBERTOS, J.A., FRAIMAN, R., RANSFORD, T.
The random projection method in goodness of fit for functional data.
Boletim da Sociedade Brasileira de Matematica (2006), **37**(4), 1.25

2007

CUESTA-ALBERTOS, J.A. del BARRIO E, FRAIMAN, R., MATRAN, C.
The random projection method in goodness of fit for functional data.
Computational Statistics and Data Analysis, **51**, 4814-4831

CUESTA-ALBERTOS, J.A. and FRAIMAN, R.
Impartial Trimmed k-means for Functional Data.
Computational Statistics and Data Analysis, **51**, 4864-4877.

CUESTA-ALBERTOS, J.A., FRAIMAN, R., RANSFORD, T.
A sharp form of the Cramer--Wold theorem.
Journal of Theoretical Probability. **20**, 201-209.

CUESTA-ALBERTOS, J.A., FRAIMAN, R., GALVES, A., GARCIA, J. and SVARC, M.
Identifying rhythmic classes of languages using their sonority: a Kolmogorov-Smirnov approach
Journal of Applied Statistics, **34**, 749-761.

2008

ALVAREZ-ESTEBAN, P.C., BARRIO, E. del, CUESTA-ALBERTOS, J.A. and MATRAN, C.

Trimmed comparison of distributions.

Journal of the American Statistical Association, **103**, 697-704.

CUESTA-ALBERTOS, J.A. and NIETO-REYES, A.

The Random Tukey Depth.

Computational Statistics and Data Analysis, **52**, 11, 4979-4988.

CUESTA-ALBERTOS, J.A. and NIETO-REYES, A.

A Random Functional Depth.

Functional and Operational Statistics. Eds. S. Dabo-Niang and F. Ferraty. *Physica-Verlag*, 121-126.

CUESTA-ALBERTOS, J.A., MATRAN, C. and MAYO-ISCAR, A.

Robust estimation in the normal mixture model based on robust clustering

Journal of the Royal Statistical Society. Series B, **70**, 4, 779-802.

CUESTA-ALBERTOS, J.A., MATRAN, C. and MAYO-ISCAR, A.

Trimming and likelihood: Robust location and dispersion estimation in the elliptical model.

Annals of Statistics, **36**, No. 5, 2284-2318

CUESTA-ALBERTOS, J.A. and NIETO-REYES, A.

The Tukey and the random Tukey depths characterize discrete distributions.

Journal of Multivariate Analysis, **99**, 2304-2311.

2009

GONZÁLEZ-DÍEZ, J. SOTO, J. GÓMEZ-ARZAMENA, J. BONACHEA, J.J. MARTÍNEZ-DÍAZ, J.A. CUESTA, I. OLAGUE, J. REMONDO, G. FERNANDEZ-MAROTO and J.R. DÍAZ DE TERÁN

Identification of latent faults using a radon test

Geomorphology, **110**, Issues 1-2, 11-19.

CUESTA-ALBERTOS, J.A., CUEVAS, A. and FRAIMAN, R.

A test for directional uniformity with applications to high-dimensional sphericity.

Statistics and Computing, **19**, 4, 367-380.

2010

CUESTA-ALBERTOS, J.A. and NIETO-REYES, A.
Functional classification and the random Tukey depth. Practical issues
*Combining Soft Computing and Statistical Methods in Data Analysis. Advances
in Intelligent and Soft Computing, Vol. 77. Eds. Borgelt, C.; Rodríguez, G.G.;
Trutschnig, W.; Lubiano, M.A.; Gil, M.Á.; Grzegorzewski, P.; Hryniewicz, O.
123-130.*

ALVAREZ-ESTEBAN, P.C., BARRIO, E. del, CUESTA-ALBERTOS, J.A.
and MATRAN, C.
Assessing when a sample is mostly normal.
Computational Statistics and Data Analysis, 54, 2914-2925.

CUESTA-ALBERTOS, J.A., FEBRERO, M
Multiway ANOVA for Functional Data
TEST, 19, 537-557.

2011

ALVAREZ-ESTEBAN, P.C., BARRIO, E. del, CUESTA-ALBERTOS, J.A.
and MATRAN, C.
Uniqueness and approximated computation of optimal incomplete
transportation plans.
Annales de Institut Henri Poincaré. 47, 358-375.

BAÍLLO, A. CUESTA-ALBERTOS, J.A. y CUEVAS, A.
Supervised classification for a family of Gaussian functional models
Scandinavian Journal of Statistics, 38, 480-498.

BRUSCHI, V.M., CENDRERO, A. and CUESTA ALBERTOS, J.A.
A Statistical Approach to the Validation and Optimisation of Geoheritage
Assessment Procedures.
Geoheritage (2011), 3, Issue 3, 131-149.

2012

ALVAREZ-ESTEBAN, P.C., BARRIO, E. del, CUESTA-ALBERTOS, J.A.
and MATRAN, C.
Similarity of Samples and Trimming.
Bernoulli, 18, 606-634.

LI, J., CUESTA-ALBERTOS, J.A. and LIU, R.
DD-Classifier: Nonparametric Classification Procedure Based on DD-plot
Journal of the American Statistical Association (2012), **107**, 737-753.

2013

ALVAREZ-ESTEBAN, P.C., BARRIO, E. del, CUESTA-ALBERTOS, J.A.
and MATRAN, C.
Searching for a Common Pooling Pattern Among Several Samples.
Computational Statistics and Data Analysis (2013), **67**, 1-14.

2014

CUESTA-ALBERTOS, J.A., GAMBOA, F. and NIETO-REYES, A.
A random-projection based test of Gaussianity for stationary processes
Computational Statistics and Data Analysis (2014), **75**, 124-141.

CUESTA-ALBERTOS, J.A.
Soluciones Estadísticas simples para algunos problemas complicados.
Estadística para todo(s). Eds. L.A. Fernández Fernández and F. Etayo
Gordejuela. Universidad de Cantabria (2014), ISBN: 978-84-8102-721-1, pp
65-144.

2015

AGULLÓ-ANTOLÍN, M. CUESTA-ALBERTOS, J.A., LESCORNEL, H.
and LOUBES, M.
A Parametric Registration model for warped distributions with Wasserstein's
distance
Journal of Multivariate Analysis (2015), **135**, 117-130.

CUESTA-ALBERTOS, J.A. and NIETO-REYES, A.
Discussion on M. Hubert, P. Rousseeuw and P. Segaert: Multivariate
functional outlier detection
Statistical Methods and their Applications (2015). **24**, 237-243.

2016

ALVAREZ-ESTEBAN, P.C., BARRIO, E. del, CUESTA-ALBERTOS, J.A.
and MATRAN, C.
A fixed-point approach to barycenters in Wasserstein space.

Journal of Mathematical Analysis and Applications (2016). **441**, 744-762.

ALVAREZ-ESTEBAN, P.C., BARRIO, E. del, CUESTA-ALBERTOS, J.A. and MATRAN, C.

A contamination model for approximate stochastic order.

TEST (2016), **25**, 751-774.

2017

CUESTA-ALBERTOS, J.A., FEBRERO-BANDE, M. and OVIEDO DE LA FUENTE, M.

The DD^G -classifier in the functional setting.

TEST (2017), **26**, 119-142.

ALVAREZ-ESTEBAN, P.C., BARRIO, E. del, CUESTA-ALBERTOS, J.A. and MATRAN, C.

Models for the assessment of treatment improvement: the ideal and the feasible.

Statistical Science (2017), **32**, No. 3, 469-485.

2018

ALVAREZ-ESTEBAN, P.C., BARRIO, E. del, CUESTA-ALBERTOS, J.A. and MATRAN, C.

Wide Consensus aggregation in the Wasserstein Space. Application to location-scatter families

Bernoulli (2018), Vol. 24, No. 4A, 3147-3179

BARRIO, E. del, CUESTA-ALBERTOS, J.A., MATRAN, C.

An Optimal Transportation Approach for Assessing Almost Stochastic Order.

In: Gil E., Gil E., Gil J., Gil M. (eds) *The Mathematics of the Uncertain. Studies in Systems, Decision and Control* (2018), Vol. 142, 33-44. Springer

2019

CUESTA-ALBERTOS, J.A. GARCIA-PORTUGUES, W., FEBRERO-BANDE, W., and GONZALEZ-MANTEIGA, W.

Goodness-of-fit tests for the functional linear model based on randomly projected empirical processes.

Annals of Statistics (2019), Vol. 47, No. 1, 439-467.

BARRIO, E. del, CUESTA-ALBERTOS, J.A., MATRAN, C. and MAYO-ÍSCAR, A.

Robust clustering tools based on optimal transportation

Statistics and Computing (2019), 29(1), 139-160.

2020

CENDRERO, A., FORTE, L.M., REMONDO, J., CUESTA-ALBERTOS, J.A.

Climate change, geomorphic change, natural hazards and the Anthropocene

Earth's Future (2020), Vol 8(5), <https://doi.org/10.1029/2019EF001305>

2021

GARCÍA-PORTUGUÉS, E., NAVARRO-ESTEBAN, P. and CUESTA-ALBERTOS, J.A.

A Cramér–von Mises test of uniformity on the hypersphere

In: Balzano S., Porzio G.C., Salvatore R., Vistocco D., Vichi M. (eds)

Statistical Learning and Modeling in Data Analysis. CLADAG 2019. Studies in Classification, Data Analysis, and Knowledge Organization. Springer, Cham. (2021), pags. 107-116. <https://doi.org/10.1007/978-3-030-69944>.

HALLIN, M., BARRIO, E. del, CUESTA-ALBERTOS, J.A. and MATRAN, C.

Distribution and quantile functions, ranks and signs in dimension d : a measure transportation approach

Annals of Statistics (2021), **49** (2), 1139-1165.

NAVARRO-ESTEBAN, P. and CUESTA-ALBERTOS, J.A.

High-dimensional outlier detection using random projections

TEST (2021), **30**, 908-934.

BARRIO, E. del, CUESTA-ALBERTOS, J.A. and MATRAN, C.

The complex behaviour of Galton rank order statistic

Bernoulli. To appear.

GARCÍA-PORTUGUÉS, E., NAVARRO-ESTEBAN, P. and CUESTA-ALBERTOS, J.A.

On a projection-based class of uniformity tests on the hypersphere

Bernoulli. To appear.

CUESTA-ALBERTOS, J.A. and DUTTA, S..

On Perfect Classification for Gaussian Processes.
Preprint.

BARRIO, E. del, CUESTA-ALBERTOS, J.A. and MATRAN, C.
Some indices to measure departures from stochastic order.
Preprint.

Research contracts

Jointly with P. Álvarez-Esteban (U. de Valladolid) I have been the responsible of the CLOSSER project, funded by ATOS Worldgrid S.L. between March and September 2015.

Jointly with P. Álvarez-Esteban (U. de Valladolid) I have been the responsible of the CLOSSER-2 project, funded by ATOS Worldgrid S.L. between August 2015 and August 2017.

Responsible of a research project with BSH Electrodomésticos España, S.A. between September 2015 and February 2016.

Referee/advisor

I have been asked as advisor or referee for the following publications and institutions:

Journals:

1. Advances in Data Analysis and Classification
2. Advances in Statistical Analysis
3. ALEA
4. Annals of Applied Statistics
5. Annals of Statistics
6. Bernoulli
7. Biometrika
8. Boletín de la Asociación Matemática Venezolana

9. Combinatorics, Probability and Computing
10. Communications in Statistics. Theory and Methods
11. Comptes Rendues de l'Academie des Sciences (Francia)
12. Computational Intelligence and Neuroscience
13. Computational Statistics.
14. Computational Statistics and Data Analysis.
15. Environmental and Ecological Statistics
16. Estadística Española.
17. European Journal of Operational Research
18. International Statistical Review
19. Journal of the American Mathematical Society (J.A.S.A.)
20. Journal of Approximation Theory
21. Journal of Classification
22. Journal of Graphical and Computational Statistics
23. Journal of Convex Analysis
24. Journal of Econometrics
25. Journal of Mathematical Analysis and Applications
26. Journal of Multivariate Analysis
27. Journal of Nonparametric Statistics
28. Journal of the Royal Statistical Society, Series B
29. Journal of Statistical Planning and Inference
30. Journal of Theoretical Probability
31. KSII Transactions on Internet and Information Systems
32. La Gaceta Matemática
33. Mathematical Reviews.
34. Neural Computation
35. Probability Theory and Related Fields
36. Publicacions Matemàtiques
37. Scandinavian Journal of Statistics
38. Scientific Research and Essays
39. SORT
40. South African Journal of Statistics
41. Stat
42. Statistical Methodology
43. Statistical Papers
44. Statistics
45. Statistics and Computing
46. Statistics and Probability Letters
47. Stochastic Models
48. TEST
49. Trabajos de Estadística

Books and conferences:

1. ISSAC2008 (The International Symposium on Symbolic and Algebraic Computation)
2. IWFOS2011 (Second International Workshop on Functional and Operatorial Statistics)
3. IWFOS2014 (Third International Workshop on Functional and Operatorial Statistics)
4. Proceedings of Distributions with given Marginals and Statistical Modeling.
5. Proceedings of the Summer Research Conference on Distributions with Fixed Marginals, Doubly Stochastic Measures and Markov Operators.
6. Proceedings of the 5th Tartu Conference on Multivariate Statistics.
7. Proceedings of the Third Conference on Distributions with Given Marginals and Moment Problems

Institutions

1. Agencia de Calidad del Sistema Universitario Vasco
2. Agencia Nacional de Evaluación y Prospectiva.
3. Agencia Nacional de Promoción Científica y Tecnológica de Argentina
4. Agencia para la Calidad del Sistema Universitario de Castilla y León
5. Agència Valenciana d'Avaluació i Prospectiva
6. Alexander von Humboldt Foundation.
7. Centro de Investigaciones en Matemáticas, Guanajuato, Mexico
8. Comité de Ciencias Experimentales para la asignación de complementos retributivos del País Vasco.
9. Consejo Nacional de Investigaciones Científicas y Técnicas de Argentina
10. Deutsche Forschungsgemeinschaft (German Research Foundation)
11. Fondo Nacional para el Desarrollo Científico y Tecnológico de Chile
12. Indian Statistical Institute
13. Instituto Venezolano de Investigaciones Científicas
14. National Security Agency (EE.UU)
15. Plan Nacional de I+D+i
16. Premio Ramiro Melendreras
17. Rutgers University
18. Universidad de la República. Montevideo.
19. University of California, Riverside
20. XuntaDeGalicia

Invited speaker:

I have been invited as speaker in the conferences:

Stochastic Geometry, Convex bodies and Empirical measures.

Università degli studi di Palermo. April 25 to May 2, 1993.

AMS-IMS-SIAM Summer Research Conference: Distributions with fixed marginals, doubly stochastic measures and Markov operators.

University of Washington, Seattle, July 31 to August 6, 1993.

5th Tartu Conference on Multivariate Statistics.

Pühajärve, Estonia, 23th to 27th May, 1994.

VII Congreso Latinoamericano de Probabilidad y Estadística Matemática, III Congreso Iberoamericano de Estadística y XXVI Coloquio Argentino de Estadística.

Córdoba, Argentina, December 21 to 25, 1998

Matemáticas en el mundo real, course included in the XIX Cursos de Verano en San Sebastián. Universidad del País Vasco.

San Sebastián, August 28 to 30, 2000

IX Congreso Latinoamericano de Probabilidad y Estadística Matemática.

Punta del Este, Uruguay, March 22 to 26, 2004

9th Brazilian School of Probability

São Sebastiao, July 31 to August 6, 2005

“Key note speaker” en el *15th European Young Statisticians Meeting-EYSM*

Castro Urdiales. September 10 to 14, 2007

ICORS07. International Conference on Robust Statistics.

Buenos Aires, Argentina. September 17 to 21, 2007.

Conferencia homenaje a Miguel Martín en el *XXX Congreso Nacional de Estadística e Investigación Operativa*

Valladolid, September 25 to 28, 2007.

57th ISI conference.

Durban, South Africa, August 16 to 22, 2009

XI Congreso Latinoamericano de Probabilidad y Estadística Matemática.

Naiguatá, Venezuela, November 1 to 6, 2009.

International Workshop on Applied Probability 2010. Colmenarejo, Madrid, July 5 to 8, 2010.

The eighth ICOSA International Conference. Guanzhou University, Guanzhou, China, December 19 to 22, 2010

XII Latin American Congress of Probability and Mathematical Statistics
March 26-30, 2012, Viña del Mar, Chile

The second Institute of Mathematical Statistics Asia Pacific Rim Meeting.
Tsukuba, Japan, July 2 to 4, 2012

CIMPA-UNESCO-MESR-MICINN research School 2012: New trends in Mathematical Statistics. Punta del Este, Uruguay, November 25 to December 5, 2012.

Experiencias epsilon. Universidad del País Vasco. 13th March 2013.

Ateneo IMUVA. Universidad de Valladolid. 23th May 2013.

45e Journées de Statistique. Toulouse, Francia, 27th to 31th May, 2013.

Taller de Matemáticas. Universidad de Cantabria. October 30, 2013

Estadística por todas partes. Ibercaja, obra social. Zaragoza November 5, 2013.

Local phase of the “Olimpiada Matemática”. Santander January 17, 2013

ICORS 2015, Indian Statistical Institute, Calcuta, 12th to 16th January, 2015.

Conference on Probability and statistics in high dimensions. A scientific tribute to Evarist Giné. Centre de Recerca Matemàtica, Barcelona 20th to 22th June, 2016.

The 4th Institute of Mathematical Statistics Asia Pacific Rim Meeting. June 27-30, 2016. | The Chinese University of Hong Kong, Hong Kong

Economic and Econometric Applications of Stochastic Dominance.
September 15-16, 2016, Trinity College, Cambridge.

New Developments in Econometrics and Time Serie. October 6-7, 2016.
Universidad Carlos III, Madrid

Workshop celebrating Peter Rousseeuw's 60th birthday May 31-June 2, 2017 University of Leuven, Belgium

III Annual meeting of the SEIO Working Group on Multivariate Analysis and Classification. October 26 - 27, 2017. Universidad de Valladolid

1st Spanish Young Statisticians and Operational Researchers Meeting (SYSORM). November 13 - 15, 2017. Universidad de Granada

3 días al azar, December 14-16, 2017. Universidad Tecnológica de Bolívar, Cartagena de Indias, Colombia.

VII Jornada Estadística UAM, February 23, 2018. Universidad Autónoma de Madrid.

Congreso Bienal de la Real Sociedad Matemática Española, Santander, Spain, 4 al 8 de febrero de 2019.

MBC² Models and Learning for Clustering and Classification, 5th Edition. Catania, Italy, September 2020.

Other merits:

I have been Associated Editor of TEST from 1996 to 2001 and Editor since January 2002 to December 2004.

I was Associated Editor of *International Journal of Statistics and Management Systems* since November 2005 till the end of the journal in 2010.

I am Associated Editor of *Journal of the American Statistical Association* since January 2017

I have been the advisor in the Ph.D. Thesis:

- MEDIDAS DE ISOTONIA. APLICACIONES A LA REGRESION NO-PARAMETRICA. By J.S. Domínguez Menchero. Universidad de Cantabria. 1991.

- APLICACIONES CRECIENTES. RELACIONES CON LA METRICA DE WASSERSTEIN. By M.A. Tuero Diaz. Universidad de Cantabria. 1991.
- APLICACIONES DE LOS RECORTES IMPARCIALES EN LA COMPARACIÓN DE DISTRIBUCIONES. By Pedro César Álvarez Esteban. Universidad de Valladolid. 2009.
- APLICACIONES ESTADÍSTICAS DE LAS PROYECCIONES ALEATORIAS. By Alicia Nieto Reyes. Universidad de Cantabria. 2010.
- TESTS ESTADÍSTICOS BASADOS EN PROYECCIONES ALEATORIAS. By Paula Navarro Esteban, Universidad de Cantabria. 2021. Codirection with Alicia Nieto Reyes.
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I have become member of the Comission to Evaluate research projects in the year 2003 in the Spanish Plan of I+D+i.

I have been the responsible in the following research projects:

“Procesos Empíricos. Aplicación al análisis de un método alternativo para el control de la calidad”. 1988. Supported by Caja Cantabria. Amount: 300000pts

“Desarrollo de técnicas de representación y aproximación en Estadística Matemática con énfasis en su aplicación a métodos robustos e inferencia con restricciones”. 1988-1990. Supported by the Spanish DGICYT, grant number PB87-0905-C02-02. Amount: 1975000pts

“Representaciones y métricas probabilísticas. Aplicaciones a la obtención de resultados asintóticos”. 1992-1994. Supported by the Spanish DGICYT, grant number PB91-0306-C02-01. Amount: 1720000pts

“Representaciones y métricas probabilísticas. Forma de una distribución, robustez y bootstrap de sucesos raros” 1996-1999. Supported by the Spanish DGICYT, grant number PB95-0715-C02-02. Amount: 1000000pts

“Métricas probabilísticas, recortes, bootstrap y aplicaciones estadísticas” 1999-2002. Supported by the Spanish DGICYT, grant number PB1998-0369-C02-02. Amount: 1500000pts

“Técnicas de recorte y métricas probabilísticas. Aplicaciones estadísticas.

2002-2005. Supported by the Spanish DGICYT, grant number BFM2002-04430-C02-02. Amount: 9600€

“Técnicas de representación y de recorte y métricas probabilísticas. Aplicaciones estadísticas” 2005-2008. Supported by the Spanish Dir. Gral. de Investigación, grant number MTM2005-08519-C02-02. Amount: 13500€

“Técnicas de remuestreo, de recorte, y métricas probabilísticas. Aplicaciones estadísticas” 2009-2011 Supported by the Spanish Dir. Gral. de Investigación, grant number MTM2008-06067-C02-02. Amount: 29524€

“Técnicas de remuestreo, de recorte, y métricas probabilísticas. Aplicaciones estadísticas” 2012-2014 Supported by the Spanish Dir. Gral. de Investigación, grant number MTM2011-28657-C02-02. Amount: 26620€

“Técnicas de remuestreo, de recorte, y métricas probabilísticas. Aplicaciones estadísticas” 2015-2017 Supported by the Spanish Dir. Gral. de Investigación, grant number MTM2014-56235-C2-2-P. Amount: 33517€

I received the grant number PR2009-0355 from the Spanish Ministerio de Educación to visit the universities Paul Sabatier in Toulouse, California-Riverside and Rutgers between March and June 2010.

Spanish DGICYT also has given me two grants for temporary visits of profesors on sabbatical leave for Prof. W. Härdle, University of Lovaine, 3 months and S.T. Rachev, University of California, 6 months (Ref. SAB94-0138).

I have got a grant from the Fulbright Foundation to cover a four month stay of Prof. Regina Liu (Rutgers University) in Santander in the academic year 2007/08.

I have been visiting professor at the:

Universidad de la República, Montevideo, Uruguay in the period September 2001 to January 2002.

Université Paul Sabatier, Toulouse, France, from 15 to 30 June, 2005.

Université Paul Sabatier, Toulouse, from 5 to 26 March, 2010.

University of California at Riverside from 5 to 29 April, 2010
Rutgers University from April 30 to May 27, 2010

I have become member of the commission to evaluate 38 PhD thesis in 14 different universities. Three of those universities are French (Rennes, Toulouse and Dunkerque), one South African (North West University) and one in Singapore (National University of Singapore).

I have given talks, courses and conferences in the following universities:

- Centro de Investigación en Matemáticas (Guanajuato, Mexico), November 2014
- Indian Institute of Technology, Kampur, India. A Lecture Series in November 2020.
- Loyola University (Montreal, Canada), April 1991.
- ECARES, Univesrsité Libre de Bruxelles, May 2017.
- Technische Universität, Dortmund (Germany), October 2017
- Rutgers University (Piscataway, NJ, USA), April 2009 and March 2014.
- Universidad Carlos III, Madrid, June 2000 and October 2016
- Universidad de Buenos Aires, November 2001.
- Universidad de A Coruña, December 2010.
- Universidad de Cantabria, December 2009.
- Universidad de La Habana, Cuba, 14 to 18, January, 2008.
- Universidad de la República de Uruguay, December 2001 and October 2020.
- Universidad de Oviedo, June 1990, June 1995, May 2000.
- Universidad de San Andrés, Buenos Aires, November 2001.
- Universidad de Santiago de Compostela, June 1999, February 2007 and May 2009.
- Universidad de Sevilla, November 2017
- Universidad de Valladolid, May 1989, June 1993, November 2000 and May 2013.
- Universidad de Zaragoza on May, 1991.
- Universidad del País Vasco. August 2000 and March 2013.
- Universidad Pontificia de Salamanca. November 2018.
- Universidad Tecnológica de Bolívar, Cartagena de Indias, Colombia, December 2017
- Università degli Studi G. d'Annunzio (Pescara, Italia). September 1996.
- Université Paris VI, December 1995.
- Universitat Pompeu Fabra, October 2009
- University of California at Riverside, April 2009.

I am the Director of the International Centre of Mathematical Meetings, (see <http://www.ciem.unican.es/>) sponsored by the Universidad de Cantabria and the City Council of Castro Urdiales, devoted to the organization of Mathematical meetings and courses.

I have been chairman in the following courses

- “Advanced course in Probability”. Universidad Internacional Menéndez Pelayo, Santander, on June, 1987.
- “Curso de Bioestadística”. IV Cursos de Verano de la Universidad de Cantabria. Laredo, July-August, 1988.
- “Métodos Estadísticos aplicados al Análisis Regional”. VI Cursos de Verano de la Universidad de Cantabria. Laredo, August, 1990.
- “Stochastic Processes and their Applications”. E.M.S. Summer School, Laredo, August 30-September 3, 2004.

I was one of the three responsible of the organization of the second “*International Workshop on Functional and Operatorial Statistics*”, Santander 16 to 18 June 2011.

I was the main organizer of the first and third Statistical Meetings of the Cantabria, Toulouse and Valladolid universities held, respectively, in Santander (2003) and Castro Urdiales (2006).

I was member of the Scientific Committee of “XXIII International Seminar on Stability Problems for Stochastic Models”, Pamplona, 12-17 May, 2003

I was a member of the Scientific and Organizing Committees of the “*International Conference on Robust Statistics (ICORS2011)*”, Valladolid 27 June to 1 July 2011. Jointly with Prof. Graciela Boente, I also organized the special invited session on *Functional Data Analysis*.

I was one of the two organizers of the 14th Escuela ECAS School on Functional and Complex Structure Data Analysis, held in Castro Urdiales, Spain, from September 17 to September 21, 2013.

I was a member of the Scientific Committee of the third “*International Workshop on Functional and Operatorial Statistics*” to be held in Stressa (Italy), 19 to 21 June, 2014.

My h-index is 20, according to Researcher ID, and 28 in Google Scholar.

The paper Goodness-of-fit tests for the functional linear model based on randomly projected empirical processes. *Annals of Statistics* (2019), 47(1) 439-467 has been awarded the prize “Mejor contribución metodológica en el campo de la Estadística” in the first edition of the “**Premios Sociedad de Estadística e Investigación Operativa - Fundación BBVA**”

Santander 10th January 2022

