

(SHORT) CURRICULUM VITAE

JACOBO DE UÑA-ÁLVAREZ

(Updated: January 2020)

CV Overview



Jacobo de Uña Álvarez is Professor in Statistics at the University of Vigo since 2010. His educational background includes a BSc in Mathematics (1995) and a PhD in Mathematical Statistics (1998), both at the University of Santiago de Compostela. In 1998 he launched at the University of Vigo the *Statistical Inference, Decision and OR* (SiDOR) research group, which involves more than 30 people nowadays, including permanent researchers, posdocs, Ph.D. students and technical staff. SiDOR was distinguished by the Government of Galicia in 2008 because of its competitiveness. Jacobo de Uña's main research area is nonparametric and semiparametric statistics and its application to Survival Analysis and multi-state models. Recent examples are nonparametric estimation under dependent censoring and truncation, Cox regression with interval sampling, or the estimation of a non-Markov transition probability matrix from truncated and censored data. Another research area in which he is also involved is multiple testing. He has supervised eight PhD theses. Along the years he has collaborated with leading researchers worldwide, his papers appearing in journals like *Biometrics*, *Statistical Methods in Medical Research*, *Statistics in Medicine*, *Journal of Multivariate Analysis*, *Journal of Nonparametric Statistics* and *Journal of Statistical Software*, among many others. Jacobo de Uña was/is Associate Editor of *Biometrics* (2014-2018), *Annals of the Institute of Statistical Mathematics* (2011-), *Brazilian Journal of Probability and Statistics* (2015-) and *Test* (2018-). He was chair of the Department of Statistics and OR at the University of Vigo (2004-2007, 2017-2019) and he currently chairs the Biostatistics and Epidemiology unit at the Biomedical Research Center in Vigo.

Personal data

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Place and date of birth: A Coruña (Spain), January 28th 1972

Nationality: Spanish

University education

‘Licenciado’ in Mathematical Sciences (1990-1995), University of Santiago de Compostela (Spain), with award ‘Premio Extraordinario de Licenciatura’ (1994-1995)

‘Doctor’ in Mathematical Sciences (April 3rd 1998) with maximum qualification ‘Apto Cum Laude’ and European Doctor Diploma. Supervisor (Spain): Wenceslao González-Manteiga (U. Santiago de C.). Supervisor (abroad): Winfried Stute (U. Giessen, Germany)

Professional employment

Present: Full Professor (‘Catedrático de Universidad’, Department of Statistics and Operations Research, U. Vigo, Spain). Researcher at the [SiDOR](#) research group, the [CINBIO](#), and the Technological Institute for Industrial Mathematics ([ITMATI](#)).

Accreditation of the ANECA (the Spanish Agency for Quality Assessment) to occupy a Full Professorship, November 17th, 2009.

Previous:

- April 1996- November 2000 (U. Vigo): non-permanent professor, full time
- December 2000 – June 2010 (U. Vigo): ‘Profesor Titular de Universidad’ (permanent professor, full time) (Associate Professor)

Research experience

- Scientist-in-charge of the Statistical Inference, Decision and Operations Research (SiDOR) group of the U. Vigo since 1998, presently recognized and granted as Leading Research Unit by the Xunta de Galicia (2008- .)
- Promotor of the Technological Institute for Industrial Mathematics (ITMATI)
- Member of the H2020 ‘Research for Industry’ project ‘Predictive Cognitive Maintenance Decision Support System ([PreCoM](#))’ 2017-2020. Role: Work Package 3 Leader
- Member of the research network “Asymptotic Theory for Multidimensional Statistics” 2012-2017, and MEDIASRES Marie Curie network 2012-2015 (<http://mediasres-itn.eu/>). Role: Leader of the U. Vigo team
- Member of the Spanish Biostatistics Network (<http://eio.usc.es/pub/biostatnet/>) and of the Spanish Network Mathematics-Industry (<http://www.math-in.net/>)
- Main research interests: nonparametric curve estimation, survival analysis and multi-state models, goodness-of-fit tests, multiple comparison procedures
- Three “sexenios” (6 years-periods with an official positive evaluation of research) recognized by the CNEAI: 1997-2002, 2003-2008, 2009-2014.

Ph. D. Advisorship

- "Multi-State Model for Biomedical Research: New Contributions in Statistical Modelling, Software Development, and Applications", Luis F. Meira-Machado (co-supervisor: Carmen Cadarso-Suárez), December 2005

- “The Statistical Analysis of Doubly Truncated Data: New Methods, Software Development, and Biomedical Applications”, Carla Moreira, July 2010
- “Semiparametric estimation in the non-Markov three-state and illness-death progressive models”, Ana Paula Amorim, February 2012
- “Contributions to Survival Analysis with Applications to Biomedicine”, Mar Rodríguez-Girondo, June 2013
- “New Contributions in the Missing Censoring-Indicator Model”, Jorge Mendonça, October 2014
- “Advances in Multiple Hypothesis Testing: the Sequential Goodness-of-Fit Procedure Revisited and Expanded”, Irene Castro-Conde, December 2014
- “Contributions to Nonparametric Estimation of Survival Curves in Non-Markov Multi-State Models”, Leyla Azarang, October 2016
- “New Contributions to the Statistical Analysis of High-Dimensional Data under Dependence”, Marta Cousido-Rocha, December 2018

Selected talks (since 2010)

- “Presmoothed estimation for multi-state survival data” at the *SMRLO'10*, Beer Sheva, Israel, February 8-11, 2010
- “On the statistical properties of SGoF multitesting method” at the *Biostatistics seminar of the University of Copenhagen*, Denmark, June 15th 2011.
- “Kernel density estimation with doubly truncated data” at the *ICSA Applied Statistics Symposium*, New York, USA, June 27th 2011
- “Nonparametric and semiparametric estimation of a distribution function under random double truncation” at the *FDM Seminar –Institute of Medical Biometry and Medical Informatics*, Freiburg, Germany, January 18th 2012; and at the *CMUP Seminar*, Porto, Portugal, March 23rd 2012
- “Advances in survival data: parametric vs nonparametric truncation” at the 20th Meeting of the Belgian Statistical Society, Liege, Belgium, October 25th 2012
- “Performance of Beta-Binomial SGoF multitesting method for dependent gene expression levels: a simulation study” at the *Fourth International Conference on Bioinformatics Models, Methods and Algorithms (Bioinformatics 2013)*, Barcelona, 2013
- “Generalized copula-graphic estimator with left-truncated and right-censored data” at the 2nd *Conference of the International Society for Nonparametric Statistics*, Cádiz, 2014
- “On Non-Parametric Estimation of Transition Probabilities in Multi-State Models” at the *Open Day of CMAT*, Braga, Portugal, 2015
- “On Non-Parametric Estimation of Transition Probabilities in Non-Markov Multi-State Models” at the *ISNPS2015 Meeting “Biosciences, Medicine, and novel Non-Parametric Methods”*, Graz, Austria, 2015
- “Nonparametric estimation for multi-state models under cross-sectional sampling” at the 37^a *Annual Conference of the International Society for Clinical Biostatistics*, Birmingham, UK, 2016
- “Sampling issues in clinical survival analysis” at the *One-day Workshop on Survival Analysis (WSA2017)*, Lisbon, Portugal, January 2017
- “Copula-graphic estimation with left-truncated and right-censored data”, Department of Statistics, U. Carlos III Madrid, March 10th 2017; and Department of Economics, U. Carlos III Madrid, April 3rd 2017

- “Nonparametric estimation of a transition probability matrix with cross-sectional data” at the *Second Bilbao Data Science Workshop (BiDAS)*, BCAM, Bilbao, November 16-17, 2017
- “Nonparametric estimation from doubly truncated data: technical and practical issues”, Department of Econometrics and Statistics, Universidad del País Vasco, October 5, 2018
- “The competing risks model with interval sampling”, 34th INTERNATIONAL WORKSHOP ON STATISTICAL MODELLING, Guimaraes, Portugal, July 9, 2019

Contributed papers

More than 100 contributed papers presented at conferences and meetings since 1996.

Professional activities

- Chair of the Department of Statistics and Operations Research, U. Vigo, November 8th 2004 – November 13th 2007; and February 2017 – June 2019. Chair of the *Biostatistics and Epidemiology* unit at CINBIO, University of Vigo, 2016 - .
- Member of the Executive Committee, the Council and the Scientific-Technical Committee of ITMATI (2013-2017)
- Elected Member of the Council of the Galician Statistics and Operations Research Society (SGAPEIO), 2001-2005; and of the Academic Council of the Spanish Statistics and Operations Research Society (SEIO), 2007-2010
- Coordinator of the Doctorate Program on Statistics and Operations Research Commission, jointly organized by the U. Vigo, the U. Santiago de C. and the U. Coruña, 2000-2004 and 2011- . Coordinator of the Statistics Master Program and of the Doctorate Program in Statistics and OR, jointly organized by the U. Vigo, the U. Santiago de C. and the U. Coruña, 2011-2017.
- Guest Editor of Biometrical Journal, Volume 61, Issues 2-3 (Special Issue: ISCB38, Part I and Part II). Associate Editor of the following journals: *Annals of the Institute of Statistical Mathematics*, 2011- ; *Computational Statistics*, 2013-2017; *Biometrics*, 2014-2018; *Brazilian Journal of Probability and Statistics*, 2015- , *Test*, 2018- .
- Grant referee for the Spanish Agency of Evaluation and Prospective (ANEP) since 2003; and for the Science, Technology and Innovation Agency of Uruguay (DINACYT) since 2004
- Principal investigator of several research projects funded by the Spanish Ministry of Education and Science and by the Xunta de Galicia Research Commission, continuously since 2002.
- Main responsible of the following conferences: VI Congreso Galego de Estatística e Investigación de Operacións (Vigo, November 5-7 2003), International Seminar on Nonparametric Inference [ISNI2008](#) (Vigo, 5-7 2008), ISCB2017 (<http://jaco.webs.uvigo.es/ISCB2017%20Book%20of%20Abstracts.pdf>)

Awards

‘Premio Ramiro Melendreras’ of the Spanish Statistics and Operations Research Society (SEIO): best young researcher in Spain, 2000

Selected papers & publications

More than 100 publications, including scientific papers and book chapters. See <http://webs.uvigo.es/jacobo/full.pdf> for full publications list

Software

- [DTDA](#): Statistical analysis of doubly truncated data [[Paper](#) published in Journal of Statistical Software]
- [DTDA.ni](#): A non-iterative estimator for doubly truncated data [[Book chapter](#) of the Studies in Systems, Decision and Control series by Springer]
- [DTDA.cif](#): Doubly truncated data, cumulative incidence functions
- [SGoF](#): Multiple hypothesis testing [[Paper](#) published in The R Journal]
- [TP.idm](#): Transition probabilities for the illness-death model [[Paper](#) published in Journal of Statistical Software]
- [Equalden.HD](#): Testing the equality of a high-dimensional set of densities
- [TwoSampleTest.HD](#): A two sample test for high-dimensional data
- [DiscreteQvalue](#): Improved q-Values for Discrete Uniform and Homogeneous Tests