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Amparo Alonso Betanzos

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Quality Indicators

Research tracts ("sexenios") = 06

Transference tracts ("sexenios") = 01

h Index (WoS) = 25

h Index (Google Scholar)= 38

i10 index(Google Scholar)= 115

Highly cited articles en WoS=2

Date of the statistics: 03/06/2022

Personal Data

Amparo Alonso Betanzos

Surname: Alonso Betanzos**Name:** Amparo**DNI:** 36.041.284-P**Birth date:** 10/10/1961**Sex:** Woman**Phone number:** (34) 881 01 12 52**Fax:** (34) 981167160**e-mail:** amparo.alonso.betanzos@udc.es**WOK Researcher ID:** K-5057-2014**Orcid Code:** 0000-0003-0950-0012**ID Scopus:** 7004102381**Present professional situation****Entity:** Full Professor. University of A Coruña(UDC).**1. PROFESSIONAL SITUATION****1.1. Present professional position****Organism:** University of A Coruña.**Department:** Computer Science**Area:** Computer Science and Artificial Intelligence.**Address:** Campus de Elviña. s/n. A Coruña. 15071.**Phone:** (34) 881 01 12 52**Fax:** (34) 981167160**e-mail:** amparo.alonso.betanzos@udc.es**UNESCO Code:** 120304, 120315, 120317, 120318**Professional Category:** Full Professor.**From:** 20/05/2002

1.2. Previous positions

Position	Institution	Dates
FPI Grant Predoc. Spain	Univ. of Santiago	1984-88
FPI Grant Postdoc. Abroad	Med. Coll. of Georgia, GA, EEUU	1988-90
Postdoctoral Fellow	Med. Coll. of Georgia, GA, EEUU	1988-90
FPI Grant Return Spain	University of Santiago	1990
Interim Associate Prof.	University of A Coruña	1990-91
Associate Professor	University of A Coruña	1991-2002

2. Academic Titles

2.1. Graduate and Master Degrees

1. University Degree: Master in Science
Entity: University of Santiago de Compostela
Date: 1993
Title of Master Thesis: A perinatal monitoring system
Calification: A
Date: June, 1985.
2. University Degree: Grade in Chemistry. Major in Chemical Engineering
Entity: University of Santiago de Compostela
Date: June, 1984.

2.2. Doctorate

Doctorate Program: Doctor in Physics
Entity: University of Santiago de Compostela
Date: 20/06/1988
Thesis Title: FOETOS: An expert system for the diagnosis, prognosis and theraoy of fetal state
Qualification: Apto "cum Laude". Extraordinary Award
University of Santiago de Compostela
Advisors: Carlos Hernández Sande and Juan Enrique Arias Rodríguez

2.3. Languages

Language	Speak	Read	Write
English	High level	High Level	High Level
Portuguese	High level	Medium level	Medium level
Galician	Native	Native	Native
Spanish	Native	Native	Native

3. SUPERVISED DOCTORAL THESIS

1. TITLE: CAFE: A hybrid architecture system for intelligent monitoring of antenatal state
DOCTORAL STUDENT: Bertha Guijarro Berdiñas
DATE OF DEFENSE: 29th October, 1998
QUALIFICATION: A “cum laude”. Computer Science. University of A Coruña
2. TITLE: Study, implementation and analysis of new machine learning algorithms and new noise tolerance measures for functional and neural networks
CODIRECTED with: Prof. Enrique Castillo, University of Cantabria. DOCTORAL STUDENT: Oscar Fontenla Romero
DATE OF DEFENSE: 05th July, 2002.
QUALIFICATION: A “cum laude”. Computer Science. University of A Coruña
3. TITLE: Machine learning, dimensionality reduction and sensibility analysis algorithms for functional and neural networks.
CODIRECTED with: Prof. Enrique Castillo, University of Cantabria.
DOCTORAL STUDENT: Noelia Sánchez Maroño
DATE OF DEFENSE: 27th June, 2005.
QUALIFICATION: A “cum laude”. Mention of European Doctorate. Computer Science. University of A Coruña
4. TITLE: On-line learning and anomaly detection methods. Applications to fault assessment.
DOCTORAL STUDENT: D. David Martínez Rego
DATE OF DEFENSE: 11th, July 2013.
QUALIFICATION: A “cum laude”. International Doctorate. Computer Science. University of A Coruña
5. TITLE: Novel feature selection methods for high dimensional data.
DOCTORAL STUDENT: D. Verónica Bolón Canedo
DATE OF DEFENSE: 05-06-2014.
QUALIFICATION: A “cum laude”. International Doctorate. Extraordinary Award. Computer Science. University of A Coruña
6. TITLE: Novel machine Learning methods based on Information theory
DOCTORAL STUDENT: D. Iago Porto Díaz
DATE OF DEFENSE: 27-11-2015. QUALIFICATION: A “cum laude”. Computer Science. University of A Coruña
7. TITLE: Computational learning algorithms for large-scale datasets
DOCTORAL STUDENT: D. Diego Fernández Francos
DATE OF DEFENSE: 29-09-2017. QUALIFICATION: A “cum laude”. International Doctorate. Computer Science. University of A Coruña
8. TITLE: Information Fusion and Ensembles for Machine Learning
DOCTORAL STUDENT: D. Borja Seijo Pardo
DATE OF DEFENSE: 17th-12-2019. QUALIFICATION: A “cum laude”. International Doctorate. Computer Science. University of A Coruña
9. TITLE: New scalable machine learning methods: Beyond classification and regression.
DOCTORAL STUDENT: D. Carlos Eiras Franco

DATE OF DEFENSE: 16th-01-2020. QUALIFICATION: A “cum laude”. International Doctorate. Computer Science. University of A Coruña

10. TITLE: Feature selection and complexity: New approaches.
DOCTORAL STUDENT: Dña. Laura Morán Fernández
DATE OF DEFENSE: 27th-July-2020. QUALIFICATION: A “cum laude”. International Doctorate. Computer Science. University of A Coruña

4. PUBLICATIONS

4.1. Books and Book Chapters

1. **Authors:** V. Bolón-Canedo, A. Alonso-Betanzos, L. Morán-Fernández and B. Cancela
Chapter Title: Feature Selection: From the Past to the Future, pp 11–34.
Book title: Advances in Selected Artificial Intelligence Areas. Learning and Analytics in Intelligent Systems.
Editorial: Virvou M., Tsihrintzis G.A., Jain L.C. (eds) vol 24. Springer, Cham.
<https://doi.org/10.1007/978-3-030-93052-3-2>, ISBN: 978-3-030-93051-6
Date: 2022
2. **Authors:** V. Bolón-Canedo, A. Alonso-Betanzos
Book title: Microarray Bioinformatics
Editorial: Verónica Bolón-Canedo and A. Alonso-Betanzos (Eds) ISBN: 978-1-4939-9441-0 ISBN 978-1-4939-9442-7 (eBook)
<https://doi.org/10.1007/978-1-4939-9442-7>. Humana Press (Springer)
Date: 2019
3. **Authors:** A. Alonso-Betanzos, V. Bolón-Canedo, L. Morán-Fernández and N. Sánchez-Marño
Chapter title: A Review of Microarray Datasets: Where to Find Them and Specific Characteristics. pp 65-86.
Book title: Microarray Bioinformatics
Editorial: V. Bolón-Canedo, A. Alonso-Betanzos (Eds) ISBN: 978-1-4939-9441-0
Date: 2019
4. **Authors:** A. Alonso-Betanzos, V. Bolón-Canedo, L. Morán-Fernández and B. Seijo-Pardo
Chapter Title: Feature Selection Applied to Microarray Data, pp 123-152.
Book title: Microarray Bioinformatics
Editorial: V. Bolón-Canedo, A. Alonso-Betanzos (Eds) ISBN: 978-1-4939-9441-0
Date: 2019
5. **Authors:** V. Bolón-Canedo, A. Alonso-Betanzos, I. López de Ullibarri and R. Cao
Chapter Title: Challenges and Future Trends for Microarray Analysis, pp 283-294.
Book title: Microarray Bioinformatics
Editorial: V. Bolón-Canedo, A. Alonso-Betanzos (Eds) ISBN: 978-1-4939-9441-0
Date: 2019

6. **Authors:** V. Bolón-Canedo, A. Alonso-Betanzos
Book title: Recent advances in Ensembles for Feature Selection
 Editorial: Janusz Kacprzyk and Lakhmi C. Jain, Intelligent Systems Reference Library, Springer-Verlag. ISBN: 978-3-319-90079-7
 Date: June, 2018

7. **Authors :** A. Alonso-Betanzos, V. Bolón-Canedo
Chapter Title: Big Data Analysis, Cluster Analysis and Machine Learning approaches.
 Book title: Sex-Specific Analysis of Cardiovascular Function
 Editorial: Dr. Peter Kerkhof and Dr. Virginia Miller, Advances in Experimental Medicine and Biology, Springer-Verlag ISBN: 978-3-319-77931-7
 Date: 2018

8. **Authors :** A. Alonso-Betanzos, V. Bolón-Canedo, Carlos Eiras-Franco, Laura Morán-Fernández and Borja Seijo-Pardo
Chapter Title: Preprocessing in high dimensional datasets
 Book title: Advances in Biomedical Informatics
 Editorial: Dawn E. Holmes and Lakhmi C. Jain, Intelligent Systems Reference Library, Springer-Verlag ISBN: 978-3-319-67512-1
 Date: 2018

9. **Authors:** V. Bolón-Canedo, N. Sánchez-Marroño, A. Alonso-Betanzos
Chapter Title: Preprocessing in Big Data: New challenges for discretization and feature selection.
 Ed. By M. Dehmer and F. Emmert-Streib, pp 283-326
 Book title: Frontiers in Data Science
 Editorial: Taylor & Francis
 Date:2018

10. **Authors :** P.L.M. Kherkof, A. Alonso-Betanzos, V. Moret-Bonillo
Chapter Title: Medical Expert Systems
 Book title: Wiley Encyclopedia of Electrical and Electronics Engineering
 Editorial: John Wiley and Sons
 Date: 2017

11. **Authors** A. Alonso-Betanzos, N. Sánchez-Marroño, O. Fontenla-Romero, J.G. Polhill, T. Craig, J. Bajo, J.M. Corchado (Eds.)
Book Title: Agent-Based Modeling of Sustainable Behaviors
 Editorial: Springer Internat. Publish., ISBN: 978-3-319-46330-8
 Date: 2017

12. **Authors:** N. Sánchez-Marroño, A. Alonso-Betanzos, O. Fontenla-Romero, J.G. Polhill, T. Craig
Chapter Title: Empirically-derived behavioral rules in agent-based models using decision trees learned from questionnaire data.
 Book title: Agent-Based Modeling of Sustainable Behaviors, pp . Ed. by A. Alonso-Betanzos et col., pp 53-76.
 Editorial: Springer
 Date: 2017

13. **Authors:** J.G. Polhill, T. Craig, A. Alonso-Betanzos, N. Sánchez-Marroño, O. Fontenla-Romero, A. Dumitru, R. García-Mira, M. Bones, M. Bonaiuto, G. Carrus, F. Fornara, C. Ilin, L. Steg, A. Ruepert, K. Keizer

Chapter Title: Interactions matter: modelling everyday pro-environmental norm transmission and diffusion in workplace networks.

Book title: Agent-Based Modeling of Sustainable Behaviors, pp . Ed. by A. Alonso-Betanzos et col.

Editorial: Springer, pp 27-52.

Date: 2017

14. **Authors:** V. Bolón-Canedo, N. Sánchez-Marroño, A. Alonso-Betanzos.
Book Title: Feature Selection for high-dimensional data.
 Editorial: Springer
 Date: 2015 ISBN: 978-3-319-21857-1 (Print) 978-3-319-21858-8 (Online)
15. **Authors:** Javier Bajo, Josefa Z. Hernández, Philippe Mathieu, Andrew Campbell, Antonio Fernández-Caballero, María N. Moreno, Vicente Julián, Amparo Alonso-Betanzos, María Dolores Jiménez-López, Vicente Botti
Book Title: Trends in Practical Applications of Agents, Multi-Agent Systems and Sustainability. The PAAMS Collection
 Editorial: Springer. Advances in Intelligent Systems and Computing. Volume 372
 Date: 2015
16. **Authors:** C. Bielza, A. Salmerón, J. Ignacio Hidalgo, L. Martínez, A. Troncoso, E. Corchado,J.M. Corchado
Book Title: Advances in Artificial Intelligence. 15th Conference of the Spanish Association for Artificial Intelligence. CAEPIA 2013.
 Editorial: Springer
 Date: 2013
17. **Authors:** A. Alonso-Betanzos., V. Bolón-Canedo, D. Fernández-Francos, I. Porto-Díaz and N. Sánchez-Marroño,
Chapter Title: Up-to-date feature selection methods for scalable and efficient machine learning. Chapter 1.
 Book title: Efficiency and scalability methods for computational intellect, pp 1-26. Ed. by B. Igel'nik and J. Zurada.
 Editorial: IGI Global
 Date: 2013
18. **Authors:** N. Sánchez-Marroño, A. Alonso-Betanzos.
Chapter title: Feature selection
 Book title: Encyclopedia of Artificial Intelligence, pp 632-638
 Editorial:Information Science Reference. IGI Global
 Date: July, 2008.
19. **Authors:** A. Alonso-Betanzos, B. Guijarro-Berdiñas, A. Lozano Tello, J.T. Palma Méndez, M.J. Taboada Iglesias
Book Title: Ingeniería del Conocimiento. Aspectos Metodológicos (in Spanish)
 Editorial: Pearson. Prentice-Hall.
 Date: 2004.
20. **Authors:** O. Fontenla-Romero, B. Guijarro-Berdiñas, A. Alonso-Betanzos
Chapter Title: Symbolic, Neural and Neuro-fuzzy approaches for pattern recognition in cardiotocograms.
 Book: Advances in Computational Intelligence and Learning. Methods and Applications,

Editorial: Kluwer Academic Publishers. Ed by H. Zimmermann, G. Tselentis, M. van Someren and G. Dounias, pp 489-500

Date: February, 2002.

21. **Authors:** E. Castillo, A. Alonso-Betanzos (Field editors)
Chapter Title: Functional networks.
 Book: Lecture Notes in Computer Science, LCNS 2084 Editorial: Springer-Verlag, Edited by J. Mira and A. Prieto
 Date: June, 2001.
22. **Authors:** V. Moret-Bonillo, A. Alonso-Betanzos, M. Cabrero Canosa, B. Guijarro Berdiñas, E. Mosqueira Rey
Book Title: Fundamentos de Inteligencia Artificial (2^a Edition, in Spanish)
 Editorial :Universidade da Coruña. Servicio de Publicaciones. Manuales Universitarios, N^o MA 9.
 Date: October, 2000.
23. **Authors:** P.L.M. Kherkof, A. Alonso-Betanzos, V. Moret-Bonillo
Chapter Title: Medical Artificial Intelligent Systems
 Book: Webster's Encyclopedia Electric and Electronic Engineering, Vol. 12, pp 498-508
 Editorial: John Wiley and Sons
 Date: 1999.
24. **Authors:** V. Moret Bonillo, A. Alonso Betanzos
Book Title: Fundamentos de Inteligencia Artificial (in Spanish)
 Editorial: Universidade da Coruña. Servicio de Publicaciones, Manuales Universitarios, N^a MA 9
 Date: June, 1998.
25. **Authors:** ICT Group of the Innovation Area of Quallyman Project
Book Title: Tecnologías de la Información y las Comunicaciones. Área de Innovación. Proyecto Quallyman (in Spanish).
 Editorial: Instituto Tecnológico de Galicia, Vol. 5, ISBN 84-89473-19-6
 Date: 1998.
26. **Authors:** A. Alonso-Betanzos, V. Moret-Bonillo, B. Guijarro-Berdiñas, M. Cabrero-Canosa
Chapter Title: The NST-EXPERT project: From the research prototype to the field prototype
 Book title: Moving towards expert systems globally in the 21st century.
 Editorial: Ed by J. Liebowitz. Cognizant Communication Corporation, pp 1321-1326
 Date: 1994.
27. **Authors :** A. Alonso-Betanzos
Chapter Title: Perspectiva simbólica de la Inteligencia Artificial en Medicina (in Spanish)
 Book: Ed. Alfredo Brañas, Colección Informática. N. 3, pp 33-54
 Date: 1994
28. **Authors:** V. Moret-Bonillo, A. Alonso-Betanzos, E.J. Truemper, J.R. Searle
Chapter Title: Intelligent monitoring and symbolic representation of clinical knowledge: An application in acute ventilatory management
 Book: Operating Room and Intensive Care Alarms and Information Transfer, ASTM STP 1152,
 Editorial: Ed. by J. Hedley-White. American Society for Testing and Materials. pp 39-45
 Date: 1992.

4.2. Articles in Scientific Journals

1. **Authors:** J. Meira, B. Veloso, V. Bolón-Canedo, G. Marreiros, A. Alonso-Betanzos and J. Gama.
Title: Data-Driven Predictive Maintenance Framework for Railway systems
Journal: Intelligent Data Analysis, 2022.
2. **Authors:** Meira, J.; Eiras-Franco, C.; Bolón-Canedo, V.; Marreiros, G. and Alonso-Betanzos, A.
Title: Fast Anomaly Detection with Locality-Sensitive Hashing and Hyperparameter AutoTuning
Journal: Information Sciences, 2022, <https://doi.org/10.1016/j.ins.2022.06.035>.
3. **Authors:** Meira, J.; Carneiro, J.; Bolón-Canedo, V.; Alonso-Betanzos, A.; Novais, P.; Marreiros, G.
Title: Anomaly Detection on Natural Language Processing to Improve Predictions on Tourist Preferences.
Journal: Electronics 2022, 11, 779. <https://doi.org/10.3390/electronics11050779>
4. **Authors:** L. Morán-Fernández, V. Bolón-Canedo, A. Alonso-Betanzos.
Title: Low-precision feature selection on microarray data: an information theoretic approach
Journal: Medical & Biological Engineering & Computing 2022 May; 60(5):1333-1345.doi: 10.1007/s11517-022-02508-0.2022.
5. **Authors:** E. Hernandez-Pereira, O. Fontenla-Romero, V. Bolón-Canedo, B. Cancela-Barizo, B. Guijarro-Berdiñas, A. Alonso-Betanzos.
Title: Machine learning techniques to predict different levels of hospital care of CoVid-19
Journal: Applied Intelligence <https://doi.org/10.1007/s10489-021-02743-2>, 2021
6. **Authors:** L. Moran-Fernandez, V. Bolon-Canedo, A. Alonso-Betanzos
Title: How important is data quality? Best classifiers vs best features
Journal: Neurocomputing, doi: <https://doi.org/10.1016/j.neucom.2021.05.107>, (2021)
7. **Authors:** C. Eiras-Franco, B. Guijarro-Berdiñas, A. Alonso-Betanzos and A. Bahamonde.
Title: Scalable Feature Selection Using ReliefF Aided by Locality-Sensitive Hashing
Journal: International Journal of Intelligent Systems, 2021
8. **Authors:** J.L. Morillo-Salas, V. Bolón-Canedo, A. Alonso-Betanzos
Title: Dealing with heterogeneity in the context of distributed feature selection for classification
Journal: Knowledge and Information systems, Vol. 63, N 1, pp 233–276, <https://doi.org/10.1007/s10115-020-01526-4>, 2021.
9. **Authors:** J. Fumanal-Idocin, A. Alonso-Betanzos, O. Cordon, H. Bustince, M. Minárova.
Title: Community detection and social network analysis based on the Italian wars of the 15th century.
Journal: Future Generation Computer Systems, Vol 113, pp 25-40, 2020.
10. **Authors:** C. Eiras-Franco, D. Martinez-Rego, L. kanthan, C. Piñeiro, A. Bahamonde, B. Guijarro-Berdiñas, A. Alonso-Betanzos.
Title: Fast distributed KNN Graph construction using auto-tuned Locality Sensitive Hashing.
Journal: ACM Transactions on Intelligent Systems and Tecnology, Vol 11, No. 6, pp 1–18, 2020.
11. **Authors:** B. Cancela, A. Alonso-Betanzos.
Title: Wavefront marching methods:A unified algorithm to solve Eikonal and statistical Hamilton-Jacobi equations.
Journal: IEEE Transactions on Pattern Analysis and Machine Intelligence
<https://doi.org/10.1109/TPAMI.2020.2993500>.

12. **Authors:** B. Cancela, V. Bolón-Canedo, A. Alonso-Betanzos and J. Gama
Title: A scalable saliency-based feature selection method with instance-level information
Journal: Knowledge-based Systems, Vol 192, 2020, <https://doi.org/10.1016/j.knosys.2019.105326>
13. **Authors:** L. Morán-Fernández, K. Sechidis, V. Bolón-Canedo, A. Alonso-Betanzos and G. Brown.
Title: Feature selection with limited bit depth mutual information for portable embedded systems.
Journal: Knowledge-based Systems, Vol 197, 2020, <https://doi.org/10.1016/j.knosys.2020.105885>
14. **Authors:** F. Sabovčik, N. Cauwenberghs, D. Kouznetsov, F. Haddad, A. Alonso-Betanzos, C. Vens and T. Kouznetsova.
Title: Applying machine learning to detect early stages of cardiac remodelling and dysfunction.
Journal: European Heart Journal - Cardiovascular Imaging (in press, April 2020)
15. **Authors:** J. Souza, J.V. Santos, V. Bolon-Canedo, A. Alonso-Betanzos, D. Alves, A. Freitas
Title: Importance of coding co-morbidities for APR-DRG assignment: Focus on cardiovascular and respiratory diseases
Journal: Health Information Management (2019)
<https://doi.org/10.1177/1833358319840575>.
16. **Authors:** J. Meira, R. Andrade, I. Praca, J. Carneiro, V. Bolon-Canedo, A. Alonso-Betanzos, G. Marreiros
Title: Performance evaluation of unsupervised techniques in cyber-attack anomaly detection
Journal: Journal of Ambient Intelligence and Humanized Computing (2019)
<https://doi.org/10.1007/s12652-019-01417-9>
17. **Authors:** C. Eiras-Franco, B. Guijarro-Berdiñas, A. Alonso-Betanzos and A. Bahamonde.
Title: A scalable decision-tree-based method to explain interactions in dyadic data
Journal: Decision Support Systems, Volume 127, 113141 (2019)
<https://doi.org/10.1016/j.dss.2019.113141>
18. **Authors:** C. Eiras-Franco, D. Martínez-Rego, B. Guijarro-Berdiñas, A. Alonso-Betanzos and A. Bahamonde.
Title: Large Scale Anomaly Detection in Mixed Numerical and Categorical Input Spaces
Journal: Information Sciences (2019), Vol 487, pp 115-127, 2019. <https://doi.org/10.1016/j.ins.2019.03.01>.
19. **Authors:** B. Seijo-Pardo, A. Alonso-Betanzos, K.P. Bennet, V. Bolón-Canedo, J. Josse, M. Saeed, I. Guyon
Title: Biases in feature selection with missing data
Journal: Neurocomputing, Vol 342, pp 97–112, 2019. <https://doi.org/10.1016/j.neucom.2018.10.085>.
20. **Authors:** V. Bolón-Canedo, A. Alonso-Betanzos.
Title: Ensembles for feature selection: A review and future trends
Journal: Information Fusion, Vol 52, pp 1-12, 2019. <https://doi.org/10.1016/j.inffus.2018.11.008>.
21. **Authors:** P. Montero-Manso, L. Morán-Fernández, V. Bolón-Canedo, J.A. Vilar, A. Alonso-Betanzos.
Title: Distributed classification based on distances between probability distributions in feature space.
Journal: Information Sciences, Volume 496, Issue C, pp 431–450, 2019. <https://doi.org/10.1016/j.ins.2018.1>
22. **Authors:** R.J. Palma-Mendoza, L. de Marcos, D. Rodriguez, A. Alonso-Betanzos.
Title: Distributed correlation-based feature selection in Spark.
Journal: Information Sciences (2018), doi: <https://doi.org/10.1016/j.ins.2018.10.052>.

23. **Authors:** V. Bolón-Canedo, K. Sechidis, N. Sánchez-Maróño, A. Alonso-Betanzos, G. Brown
Title: Insights into distributed feature ranking
Journal: Information Sciences, <https://doi.org/10.1016/j.ins.2018.09.045> (2018)
24. **Authors:** J. Díez, D. Martínez-Rego, A. Alonso-Betanzos, O. Luaces, A. Bahamonde.
Title: Optimizing recommendation novelty and diversity.
Journal: Progress in Artificial Intelligence, <https://doi.org/10.1007/s13748-018-0158-4> (2018)
25. **Authors:** B. Seijo-Pardo, V. Bolón-Canedo, A. Alonso-Betanzos.
Title: On developing an automatic threshold applied to feature selection ensembles
Journal: Information Fusion, Vol.45, pp 227–245, January 2019. DOI: 10.1016/j.inffus.2018.02.007 (2018)
26. **Authors:** V. Bolón-Canedo, D. Rego-Fernández, D. Peteiro-Barral, A. Alonso-Betanzos, B. Guijarro-Berdiñas, N. Sánchez-Maróño.
Title: On the scalability of feature selection methods on high-dimensional data.
Journal: Knowledge and Information Systems, <https://doi.org/10.1007/s10115-017-1140-3> (2018)
27. **Authors:** D. Fernández-Francos, O. Fontenla-Romero, A. Alonso-Betanzos.
Title: One-class convex hull-based algorithm for classification in distributed environments.
Journal: IEEE Transactions on Systems, Man and Cybernetics: Systems, D.O.I. 10.1109/TSMC.2017.2771. (accepted October, 2017)
28. **Authors:** S. Ramírez-Gallego, H. Mouriño-Talín, D. Martínez-Rego, V. Bolón-Canedo, J.M. Benítez, A. Alonso-Betanzos, F. Herrera.
Title: An Information Theoretic feature selection framework for Big Data under Apache Spark.
Journal: IEEE Transactions on Systems, Man and Cybernetics: Systems, D.O.I.: 10.1109/TSMC.2017.2670
29. **Authors:** L. Morán-Fernández, V. Bolón-Canedo, A. Alonso-Betanzos.
Title: On the use of different base classifiers in multiclass problems
Journal: Progress in Artificial Intelligence (2017), 6(4), pp 315-323. doi:10.1007/s13748-017-0126-4.
30. **Authors:** B. Seijo-Pardo, V. Bolón-Canedo, A. Alonso-Betanzos.
Title: Testing different ensemble configurations for feature selection
Journal: Neural Processing Letters(2017), Vol 46, pp 857-880, DOI 10.1007/s11063-017-9619-1.
31. **Authors:** D. Mera, V. Bolón-Canedo, J.M. Cotos, A. Alonso-Betanzos.
Title: On the use of feature selection to improve the detection of sea oil spills in SAR images
Journal: Computers & Geosciences, Volume 100, March 2017, Pages 166-178, ISSN 0098-3004.
32. **Authors:** B. Seijo-Pardo, I. Porto-Díaz, V. Bolón-Canedo, A. Alonso-Betanzos.
Title: Ensemble feature selection: Homogeneous and heterogeneous approaches
Journal: Knowledge-Based Systems, Vol. 118, pp 124–139, 2017.
D.O.I. 10.1016/j.knosys.2016.11.017
33. **Authors:** R. García-Mira, A. Dumitru, A. Alonso-Betanzos, N. Sánchez-Maróño,, O. Fontenla-Romero, T. Craig, J.G. Polhil.
Title: Testing scenarios to achieve workplace sustainability goals using backcasting and agent-based modeling.
Journal: Environment and Behavior, Vol. 49(9), pp1007–1037, 2017.
DOI 10.1177/0013916516673869.

34. **Authors:** A. Alonso-Betanzos, J.A. Gámez, F. Herrera, J.M. Puerta, J.C. Riquelme.
Title: Volume, Variety and Velocity in Data Science. Editorial Special Issue
Journal: Knowledge-Based Systems, Vol. 117, pp 1-2 (2017).
35. **Authors:** L. Morán-Fernández, V. Bolón-Canedo, A. Alonso-Betanzos.
Title: Centralized vs. distributed feature selection methods based on data complexity measures
Journal: Knowledge-Based Systems, Vol. 117, pp 27–45 (2017)
D.O.I.: 10.1016/j.knosys.2016.09.022
36. **Authors:** O.Luaces, J. Díez, A. Alonso-Betanzos, A. Troncoso, A. Bahamonde.
Title: Content-based methods in peer assessment of open-response questions to grade students as authors and as graders.
Journal: Knowledge-Based Systems, Vol. 117, pp 79–87 (2017)
doi: 10.1016/j.knosys.2016.06.024.
37. **Authors:** C. Eiras-Franco, V. Bolón-Canedo, S. Ramos, J. González-Domínguez, A. Alonso-Betanzos y J.Touriño.
Title: Multithreaded and Spark parallelization of feature selection filters
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4.3. Articles in Conference Proceedings

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Title: Sustainable Personalisation and Explainability in Dyadic Data Systems
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Title:How Agent-based modeling can help to foster sustainability projects
Conference: 26th International Conference on Knowledge Based and Intelligent information and Engineering Systems, KES 2022 (in press), Verona (Italy), September, 2022.
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Title:Análisis de redes sociales basado en las conquistas de César Borgia.
Conference: XIX Conferencia de la Asociación Española para la Inteligencia Artificial CAEPIA 20/21, pp 613–618, ISBN: 978-84-09-30514-8, Málaga, September 2021.
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Title:Personalización de Recomendaciones en TripAdvisor Usando Deep Learning.
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Title:Generating a synthetic population of agents through decision trees and socio demographic data
Conference: IWANN 2021. In: Rojas I., Joya G., Català A. (eds) Advances in Computational Intelligence. Lecture Notes in Computer Science, vol 12862. Springer, Cham. https://doi.org/10.1007/978-3-030-85099-9_11, pp 128-140.
Place: Online **Date:** August, 2021.
6. **Authors:** B. Cancela, V. Bolón-Canedo, A. Alonso-Betanzos
Title:A Delayed Elastic-Net Approach for Performing Adversarial Attacks
Conference: 25th International Conference on Pattern Recognition (ICPR 2020)
Place: Milano (Italy) **Date:** 10-15th January, 2021.
7. **Authors:**B. Cancela, V. Bolón-Canedo, A. Alonso-Betanzos
Title: Can Data Placement Be Effective for Neural Networks Classification Tasks? Introducing the Orthogonal Loss
Conference: 25th International Conference on Pattern Recognition (ICPR 2020)
Place: Milano (Italy) **Date:** 10-15th January, 2021.
8. **Authors:** L. Morán-Fernández, V. Bolón-Canedo and A. Alonso-Betanzos
Title: Do we need hundreds of classifiers of a good feature selection?.
Conference: 28th European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN)
Place: Bruges (Belgium) **Date:** 2-4th October, 2020.
9. **Authors:**Laura Morán-Fernández, Eva Blanco-Mallo, Konstantinos Sechidis, Amparo Alonso-Betanzos, Verónica Bolón-Canedo
Title:When size matters: Markov Blanket with limited bit depth conditional mutual information

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Title: Machine Learning for predicting early left ventricular abnormalities in the general population.
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Title: Análisis de estrategias de clasificación multiclase. Relación con medidas de complejidad
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Title: Estrategia docente de la materia de Sistemas Inteligentes en la titulación de grado en Ingeniería Informática.
Type: Proceedings.
Conference: XIX Jornadas sobre la Enseñanza Universitaria de la Informática (JENUI 2013)
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Conference: IEEE 24th International Conference on Tools with Artificial Intelligence, ICTAI 2012
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Type de participación: Libro de Proceedings con artículos seleccionados.
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Place: Salzburg, Austria **Date:** September 10–14, 2012 .

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152. **Authors:** V. Moret-Bonillo, A. Alonso-Betanzos, E.J. Truemper, J.R. Searle
Title: Computers in ICU monitoring: An intelligent semantic-based method
Publication: Proc. IEEE Eng. Med. Biol. Soc., Vol. 13, No. 4, pp 1637-1638
Date: November, 1991
153. **Authors:** A. Alonso-Betanzos, V. Moret-Bonillo, L.D. Devoe, J.R. Searle
Title: Obstetrical decision-making based on predictive expert analysis
Publication: Proc. IEEE Eng. Med. Biol. Soc., Vol. 13, No. 3, pp 1300-1301
Date: November, 1991
154. **Authors:** V. Moret-Bonillo, A. Alonso-Betanzos, E.J. Truemper, J.R. Searle, E. García-Martín
Title: An overview of ICU expert systems: Temporal or patient oriented approaches?
Publication: Proc. 4th. Int. Symp. on Biomed. Eng., pp 293-294
Date: September, 1991
155. **Authors:** A. Alonso-Betanzos, V. Moret-Bonillo, L.D. Devoe, J.R. Searle, E. Ramos-Santos, B. Baniás
Title: Clinical validation procedure of an expert system for antenatal assessment
Publication: Proc. 4th. Int. Symp. on Biomed. Eng., pp 286-287
Date: September, 1991
156. **Authors:** V. Moret-Bonillo, A. Alonso-Betanzos, L.D. Devoe, J.R. Searle
Title: Implementing uncertainty-based structures in NST-EXPERT
Publication: Proc. IEEE Eng. Med. Biol. Soc., Vol. 12, No. 3, pp 1345-1346
Date: November, 1990
157. **Authors:** A. Alonso-Betanzos, V. Moret-Bonillo, J.R. Searle, L.D. Devoe
Title: Knowledge representation in NST-EXPERT
Publication: Proc. IEEE Eng. Med. Biol. Soc., Vol. 12, No. 3, pp 1322-1323
Date: November, 1990

158. **Authors:** C. Bóveda, C. Hernández, A. Alonso
Title: Monitorización perinatal implementada en ordenador personal
Publication: 2º Conference Português de Engenharia Biomédica, pp 331-333
Date: April, 1990
159. **Authors:** V. Moret-Bonillo, A. Alonso-Betanzos, J.R. Searle
Title: Towards the implementation of intelligent structures in intensive care monitoring: The advantage of the symbolic preprocessing
Publication: 28th Ann. ACM Southeast Reg. Conf., pp 206
Date: April, 1990
160. **Authors:** A. Alonso-Betanzos, V. Moret-Bonillo, L.D. Devoe, J.R. Searle, C. Bóveda-Álvarez
Title: NST-EXPERT: An intelligent program for NST interpretation
Publication: Proc. IEEE Eng. in Med. and Biol. Soc., Vol. 11, No. 6, pp 1859-1860
Date: November, 1989
161. **Authors:** V. Moret-Bonillo, A. Alonso-Betanzos, C. Hernández-Sande
Title: Implementing cognitive procedures in diagnostic processes
Publication: Proc. IEEE Eng. in Med. and Biol. Soc., Vol. 11, No. 6, pp 1867-1868
Date: November, 1989
162. **Authors:** V. Moret-Bonillo, A. Alonso-Betanzos, B. Arcay-Varela
Title: Symbolic processing in intelligent monitoring
Publication: Proc. IEEE Eng. in Med. and Biol. Soc., Vol. 11, No. 6, pp 1836-1837
Date: November, 1989
163. **Authors:** A. Alonso, V. Moret, C. Hernández
Title: Development of an adviser system for foetal diagnosis during labour
Publication: Proc. IEEE Eng. in Med. and Biol. Soc., Vol. 10, No. 3, pp 1355-1357
Date: November, 1988
164. **Authors:** C. Hernández, A. Alonso, V. Moret
Title: An artificial intelligence design for perinatal condition diagnosis during labour
Publication: Proc. 3rd Int. Conf. on Fetal and Neonat. Physiol. Measur., pp 135
Date: June, 1988
165. **Authors:** C. Hernández, A. Alonso, V. Moret
Title: A computer design for an intelligent CST
Publication: Proc. 3rd Int. Conf. on Fetal and Neonat. Physiol. Measur., pp 54
Date: June, 1988
166. **Authors:** V. Moret-Bonillo, C. Hernández-Sande, A. Alonso-Betanzos
Title: A knowledge-based system as an aid to weaning patients from mechanical ventilation
Publication: Proc. IEEE Eng. in Med. and Biol. Soc., Vol. 9, No. 3, pp 1545-1546
Date: November, 1987
167. **Authors:** C. Hernández, A. Alonso, V. Moret
Title: Building an expert system for perinatal diagnosis application
Publication: Proc. IEEE Eng. in Med. and Biol. Soc., Vol 9, No. 3, pp 1543-1544
Date: November, 1987

168. **Authors:** C. Hernández, V. Moret, A. Alonso
Title: Un sistema experto supervisor de terapias respiratorias
Publication: Proc. III Simp. Int. de Ing. Biomed., pp 513-534
Date: October, 1987
169. **Authors:** A. Alonso-Betanzos, C. Hernández-Sande, V. Moret-Bonillo
Title: Diagnóstico y pronóstico del test de Pose mediante técnicas de inteligencia artificial
Publication: Proc. III Simp. Int. de Ing. Biomed., pp 531-534
Date: October, 1987
170. **Authors:** C. Hernández, A. Alonso, V. Moret, B. Arcay
Title: Diagnosis and prognosis of the contraction stress test using artificial intelligence techniques
Publication: Proc. Int. Conf. on Identification, Modelling and Simulation, pp 503-507
Date: June, 1987
171. **Authors:** C. Hernández, V. Moret, A. Alonso, B. Arcay
Title: ESTER: A ventilatory therapy adviser
Publication: Proc. Int. Conf. on Identification, Modelling and Simulation, pp 496-498
Date: June, 1987
172. **Authors:** C. Hernández, J.E. Arias, A. Alonso
Title: Syntatic pattern recognition techniques applied to the measurement of encephalopathy
Publication: Proc. IV Med. Conf. on Med. and Biol. Eng., pp 271-273
Date: September, 1986
173. **Authors:** C. Hernández, A. Alonso, J.E. Arias
Title: A knowledge engineering based system for the perinatal diagnosis and prognosis
Publication: Proc. IV Med. Conf. on Med. and Biol. Eng., pp 676-679
Date: September, 1986
174. **Authors:** C. Hernández, J.E. Arias, A. Alonso, W. Celso de Lima
Title: FOETOS: Ingeniería de conocimiento en perinatología
Publication: Proc. VII Conference de la Asoc. De Control Autom. Chilena, pp 116-118
Date: August, 1986
175. **Authors:** A. Alonso, C. Hernández, J.E. Arias
Title: An intelligent system for diagnostic decisions based on the contraction stress test
Publication: Proc. IASTED Robotics and Artificial Intelligence (RAI-IPAR'86), Vol. 2, pp 457-463
Date: June, 1986
176. **Authors:** A. Alonso, C. Hernández
Title: Sistema de monitorización y diagnóstico del test de Pose
Publication: Proc. V Reun. Nac. de Física Médica, Vol. 3, pp 538-541
Date: October, 1985
177. **Authors:** C. Hernández, J.E. Arias, A. Alonso
Title: An expert system for prediction of foetal condition during labour
Publication: Proc. 7th Ann. Int. Conf. IEEE Eng. in Med. and Biol. Soc., Vol. 7, No. 2, pp 1152-1154
Date: September, 1985
178. **Authors:** C. Hernández, A. Alonso, J.E. Arias
Title: Computerized monitoring as an aid to obstetrical decision-making

Publication: Proc. Computer Aided Technologies (COMPINT'85), IEEE Computer Society, pp 203-206

Date: September, 1985

179. **Authors:** A. Alonso, C. Hernández, W. Celso de Lima

Title: Desenvolvimento de um sistema de monitorizaçao da prova de Pose

Publication: Proc. IX Conference Brasileiro de Engenharia Biomédica, pp 11-19

Date: September, 1985

180. **Authors:** C. Hernández, A. Alonso

Title: An automatic unit for perinatal diagnosis and monitoring based on the foetal topogram

Publication: Proc. 32th Int. Symp. on Mini and Microcomputer Applications (ISMM'85), pp 294-297

Date: June, 1985

5. PARTICIPATION IN FINANCED PROJECTS

5.1. Research Projects

1. Title: Explainable and Scalable Machine Learning

FINANCING BY: Ministerio de Ciencia e Innovación

FROM: 2020 TO:2024

MAIN RESEARCHER: Amparo Alonso Betanzos and Bertha Guijarro-Berdiñas.

2. Title: Machine Learning on the Edge

FROM-TO: 2020-2022

FINANCING BY: Fundación BBVA

COORDINATOR AND MAIN RESEARCHER: Óscar Fontenla-Romero (UDC)

PARTICIPATION: Researcher

3. Title : Consolidation Program and structuring of competitive research units. Competitive Reference Group Modality. (Galician Reference Group)

FINANCING BY: Consellería de Educación e Ordenación Universitaria. Xunta de Galicia. ED431C 2018/34

FROM: 01-January-2018 TO: 31-December- 2021.

MAIN RESEARCHER: Amparo Alonso Betanzos.

4. Title: Social innovation Modelling Approaches to Realizing Transition to Energy Efficiency and Sustainability (SMARTEES)

FROM-TO: 2018-2021

FINANCING BY: H2020, Topic LCE-31-2016/17. Grant Agreement 763912

COORDINATOR: Christian A. Klöckner. Norwegian University of Science and Technology(NTNU).

PARTICIPATION: Researcher

5. Title : Spanish excellence network in Big Data and Scalable data analysis, TIN2016-82013-REDT.

FROM: 01-07-2017 To: 30-06-2019

FINANCING BY: Ministerio de Ciencia e Innovación.

COORDINATOR : Francisco Herrera Trigueros. University of Granada.

PARTICIPATION: Node, main researcher.

6. Title : Consolidation Program and structuring of competitive research units. Network Modality. Galician Excellence network in Cloud Technology and Big Data for HPC(ED341D R2016/045)
FINANCED BY: Consellería de Educación e Ordenación Universitaria. Xunta de Galicia. R2014/041
FROM: 01-January-2017 TO: 30-November-2018.
COORDINATOR: Juan Touriño Domínguez.
PARTICIPATION: Node, main researcher.
7. Title: Scalable algorithms in Machine Learning: Beyond classification and regression
FINANCING BY: Ministerio de Economía y Competitividad
FROM: 2016 TO:2019
MAIN RESEARCHER: Amparo Alonso Betanzos.
8. Title : Spanish excellence network in Big Data and Scalable data analysis, TIN2014-56425-REDT
FROM 01-01-2015 TO 01-01-2017
FINANCING BY: Ministerio de Ciencia e Innovación.
COORDINATOR: Francisco Herrera Trigueros.
PARTICIPATION: Node, main researcher.
9. Title : Galician Excellence network in Cloud Technology and Big Data for HPC
FINANCING BY: Consellería de Educación e Ordenación Universitaria. Xunta de Galicia. Expte. R2014/041
FROM: 01-January-2014 TO: 30-November-2015.
COORDINATOR: Juan Touriño Domínguez.
PARTICIPATION: Node, main researcher.
10. Title : Consolidation Program and structuring of competitive research units. Competitive Reference Group Modality (Galician Reference Group)
FINANCING BY: Consellería de Educación e Ordenación Universitaria. Xunta de Galicia. GRC2014/035
FROM: 01-January-2014 TO: 30-November-2017.
MAIN RESEARCHER: Amparo Alonso Betanzos.
11. Title: Machine Learning algorithms for distributed environments
FINANCING BY: Ministerio de Economía y Competitividad
FROM: 2013 TO:2015
MAIN RESEARCHER: Amparo Alonso Betanzos.
12. Title : Consolidation Program and structuring of competitive research units. Strategic units Modality (Galician Strategic units-CITIC-UDC)
FINANCING BY: Consellería de Educación e Ordenación Universitaria. Xunta de Galicia. CN 2012/211
FROM: January, 2012 TO: November, 2013.
MAIN RESEARCHER: Bertha Guijarro Berdiñas.
13. Title : Spanish Excellence network for Computational Intelligence
FROM-TO:: 2012
FINANCING BY: Ministerio de Economía y competitividad
COORDINATOR: Miquel Sánchez Marre.
PARTICIPATION: Node, main researcher.
14. Title : Consolidation Program and structuring of competitive research units. Competitive Reference Group Modality (Galician Reference Group)
FINANCING BY: Consellería de Educación e Ordenación Universitaria. Xunta de Galicia. CN

2011/007

FROM: 2011 TO: 2013.

MAIN RESEARCHER: Amparo Alonso Betanzos.

15. Title: Low Carbon at Work: Modelling Agents and Organizations to achieve Transition to a Low Carbon Europe (LOCAW)
FROM-TO:: 2011-2013
FINANCING BY: 7th Framework Programme. EU
COORDINATOR: Ricardo García Mira.
16. Title : Spanish Excellence network for Data Mining and Machine Learning
FROM: 01/01/2010 TO 31/12/2013
FINANCING BY: Ministerio de Ciencia e Innovación.
COORDINATOR: José C. Riquelme Santos.
PARTICIPATION: Node, main researcher.
17. Title: Spanish Excellence Network in Temporal Series (RESeT)
FROM-TO:: 2011
FINANCING BY: Ministerio de Ciencia e Innovación.
COORDINATOR: Héctor Pomares.
PARTICIPATION: Node, main researcher.
18. Title: New scalable and efficient machine learning methods for large datasets.
FINANCING BY: Ministerio de Educación y Ciencia
FROM-TO: DESDE: 2009 TO:2011
MAIN RESEARCHER:L: Bertha Guijarro Berdiñas.
19. Title: Development of efficient machine learning models based in the combination of experts and local modeling techniques.
FINANCING BY: Xunta de Galicia
FROM: 2008 TO:2011
MAIN RESEARCHER: Oscar Fontenla Romero.
20. Title: Consolidation Program and structuring of competitive research units. Strategic units Modality (Galician Strategic units-CITIC-UDC)
EMPRESA/ADMINISTRACION FINANCIADORA: Consellería de Educación e Ordenación Universitaria. Xunta de Galicia. CN 2008/060
FROM: January, 2008 TO: December, 2010.
COORDINATOR: Víctor Gulías Fernández. Coordinator CITIC-UDC.
21. Title: Spanish Network of Data Mining and Machine Learning.
FROM-TO: 01/01/2007 to 30/06/2008
FINANCING BY: Ministerio de Ciencia e Innovación.
COORDINATOR: José C. Riquelme Santos.
PARTICIPATION: Node, main researcher.
22. Title: Consolidation Program and structuring of competitive research units. Competitive Reference Group Modality (Galician Reference Group)
EMPRESA/ADMINISTRACION FINANCIADORA: Consellería de Educación e Ordenación Universitaria. Xunta de Galicia. 2007/000134-0
FROM: 2007 TO: 2010
MAIN RESEARCHER: Amparo Alonso Betanzos. Coordinator LIDIA research group.

23. Title: Development of a new internal architecture for an intelligent agent.
FINANCING BY: Xunta de Galicia
FROM: 2006 TO:2009
MAIN RESEARCHER:L: Bertha Guijarro Berdiñas.
24. Title: Development and application of machine learning techniques for its integration in a multiagent system for intrusion detection.
FINANCING BY: Ministerio de Educación y Ciencia.
FROM: 01/10/2006 TO:30/09/2009
MAIN RESEARCHER:L: Amparo Alonso Betanzos.
25. Title: Improvement in learning of neural and functional networks in their applications to Bioinformatics and Engineering.
FINANCING BY: Xunta de Galicia
FROM: 2005 TO: 2008
MAIN RESEARCHER:L: Amparo Alonso Betanzos.
26. Title: An intelligent system for detection and classification of hypoapneas based in uncertain reasoning models.
FINANCING BY: Xunta de Galicia
FROM: 2005 TO:2008
MAIN RESEARCHER:L: Vicente Moret Bonillo
27. Title: REGAX- REde Galega de AXentes.(Galician Network of Agents)
FROM: 2005 TO:2006
FINANCING BY: Xunta de Galicia.
COORDINATOR: Amparo Alonso Betanzos.
28. Title: Spanish Excellence Network in Data Mining and Machine Learning.
FROM-TO: 01/01/2005 to 31/12/2005
FINANCING BY: Ministerio de Ciencia e Innovación.
COORDINATOR: José C. Riquelme Santos.
29. Title: New machine learning algorithms and design of optimal topologies for neural and functional networks. Extension for other programs of research
FINANCING BY: Xunta de Galicia.
FROM: 2004 TO:2006
COORDINATOR: Vicente Moret Bonillo
30. Title: A intelligent multiagent architecture for intrusion detection.
FINANCING BY: Xunta de Galicia
FROM: 2003 TO:2006
MAIN RESEARCHER: Amparo Alonso Betanzos
31. Title: New machine learning algorithms and design of optimal topologies for neural and functional networks.
FINANCING BY: Ministerio de Ciencia y Tecnología
FROM: 2003 TO: 2006
MAIN RESEARCHER: Amparo Alonso Betanzos
32. Title: Intrusion detection by a multiagent system.
FINANCING BY: University of A Corunna (UDC)

- FROM-TO: January, 2003 TO: December, 2003
MAIN RESEARCHER:L: Amparo Alonso Betanzos
33. Title: Temporal aspects of intelligent monitoring of sleep apnea.
FINANCING BY: Xunta de Galicia.
FROM-TO: January, 2001 TO: December, 2003
MAIN RESEARCHER:L: Vicente Moret Bonillo
34. Title: Cooperation of Artificial Intelligence techniques in an antenatal telemonitoring system: TE-LEMACO
FINANCING BY: Xunta de Galicia. Program ICT.
FROM: January, 1999 TO: December, 2000
MAIN RESEARCHER: Amparo Alonso Betanzos
35. Title: Design and implementation of a software tool for temporal series management and its application to the development of a neural network-based system for the management of artefacts in cardiotocographic signals. Integration in the hybrid intelligent system CAFE.
FINANCING BY: University of A Corunna (UDC)
FROM: January, 1999 TO: December, 1999
MAIN RESEARCHER: Bertha Guijarro Berdiñas
36. Title: Development and integration of an intelligent system based in the cooperation of symbolic, connectionist and conventional software for automation of fetal monitoring.
FINANCING BY: Xunta de Galicia
FROM: January, 1997 TO: December, 1998
MAIN RESEARCHER: Amparo Alonso Betanzos
37. Title: Processing and interpretating multimedia information for the development of clinical decision-making systems.
FINANCING BY: CICYT. International Actions Spain-Portugal
FROM: January, 1996 TO: December, 1996
MAIN RESEARCHER: Amparo Alonso Betanzos
38. Title: Integration of software and knowledge engineering techniques for the antenatal diagnosis, prognosis and therapy.
FINANCING BY: Xunta de Galicia
FROM: January, 1994 TO: December, 1995
MAIN RESEARCHER: Amparo Alonso Betanzos
39. Title: Processing and interpretating multimedia information for the development of clinical decision-making systems.
FINANCING BY: CICYT. International Actions Spain-Portugal
FROM: January, 1995 TO: December, 1995
MAIN RESEARCHER: Amparo Alonso Betanzos
40. Title: Intelligent monitoring of patients in Intensive Care Units. Implementation of a new approach oriented towards the specific clinical cases.
FINANCING BY: CICYT
FROM: 1991 TO: 1993 MAIN RESEARCHER: Vicente Moret Bonillo
41. Title: Implementation of prognostic structures in an antenatal expert system: The NST-EXPERT project

FINANCING BY: Xunta de Galicia
 FROM: January, 1991 TO: December, 1992
 MAIN RESEARCHER: Amparo Alonso Betanzos

42. Title: Supervisor of gas and anesthetic therapies in pre and post-surgery based on knowledge engineering.
 FINANCING BY: Xunta de Galicia
 FROM: January, 1988 TO: December, 1990
 MAIN RESEARCHER: Juan Enrique Arias Rodríguez
43. Title: Supervisor system for the diagnosis, prognosis and therapy in perinatal ICU based on hybrid knowledge engineering.
 FINANCING BY: CAICYT, Spain
 FROM: 1987 TO: 1990
 MAIN RESEARCHER: Carlos Hernández Sande
44. Title: Perinatal monitoring techniques in the Pose test
 FINANCING BY: Banco Federal do Brasil. Universidade Federal de Santa Catarina (Brasil)
 FROM: 1986 TO: 1987
 MAIN RESEARCHER: L. Walter Celso de Lima

5.2. Infrastructure projects (from 2015)

1. Title: Equipment for the development of research projects in Big Data and HPC projects for CITIC UNLC15-DE- 3383.
 FINANCING BY: Ministerio de Economía y Competitividad. Ayudas a Infraestructuras y Equipamiento Científico-Técnico
 FROM: 01-01-2016 TO: 31-12-2017
 MAIN RESEARCHER: CITIC (Universidade da Coruña)

5.3. Transference projects

1. **Title:** QUALYMAN Project. Initiative ADAPT
Financing by: European Union
FROM: February, 1997 **TO:** July, 1998
Main Researcher (LIDIA-CITIC): Amparo Alonso Betanzos.
2. **Title:** Development of an expert system for the prediction of forest fires risk in Galicia and the NW of Castilla-León.
Financing by: U.E. Fondos FEDER, University of Santiago de Compostela (USC).
FROM: January, 1999 **TO:** December, 2001
Main Researcher (LIDIA-CITIC): Amparo Alonso Betanzos (UDC)
COORDINATOR: Inmaculada Paz Andrade (USC).
3. **Title:** Study, analysis and validation of an intelligent predictive maintenance system oriented to ship engines.
Financing by: INDRA SISTEMAS, S.A . Xunta de Galicia
FROM: 2005 **TO:** 2008
Main Researcher: Amparo Alonso Betanzos.

4. **Title:** Dynamization, creation and consolidation of technology-based companies in the ICT sector of the Autonomous Community of Galicia.
Financing by: Ministerio de Educación y Ciencia, OTR050190
FROM: 2006 **TO:** 2008
Main Researcher: Juan Luis Sobreira Seoane.
5. **Title:** ATILA: Development of a tool for traffic analysis with deep inspection, log review, risk management and adaptation to regulations.
Financing by: Grupo Galseg Seguridad Informática S.L. y Xunta de Galicia
FROM: 2007 **TO:** 2009
Main Researcher: Amparo Alonso Betanzos.
6. **Title:** Smart system for prediction of failures in wind turbines.
Financing by: INDRA SISTEMAS, S.A . Xunta de Galicia
FROM: 2008 **TO:** 2011
Main Researcher: Amparo Alonso Betanzos.
7. **Title:** Technical assistance in signal processing applied to vibrations analysis
Financing by: INDRA SISTEMAS, S.A.
FROM: January 2009 **TO:** December 2010
Main researcher: Amparo Alonso Betanzos.
8. **Title:** Development of improvement tasks and incorporation of new functionalities to a computer system for the early detection of faults in wind turbines. Installation of a field prototype of the system in a wind farm.
Financing by: INDRA SISTEMAS, S.A.
FROM: 01 de June **TO:** 31 December, 2010.
Main researcher: Amparo Alonso Betanzos.
9. **Title:** Energetic efficiency
Financing by: Comasis Consultores S.L. Xunta de Galicia
FROM: 01-September 2010 **TO:** 31 July, 2011.
Main researcher: Amparo Alonso Betanzos.
10. **Title:** Ship efficiency and reliability analysis technologies - STEF Project
Financing by: Perama Ingeniería S.L.U- C.D.T.I.
FROM: 24-06-2010 **TO:** 24-06-2011.
Main Researcher: Amparo Alonso Betanzos.
11. **Title :** Digital Hub
Financing by: Prisa Digital
FROM December-2010 **TO:** August-2014.
MAIN RESEARCHER (LIDIA-CITIC:): Amparo Alonso Betanzos. Coordinator of Research Group LIDIA.
12. **Title :** CONFORSHIP. Development of a new automatic termic conformed system for naval structures
Financing by: COREMAIN SL, INDICADE SL, CDTI. Programa FEDER-INNTERCONECTA 2013 (ITC-20133004)
Participants: COREMAIN SL, INDICADE SL, Group LIDIA-CITIC, Tech Center AIMEN.
FROM: 01/04/2013 **TO:** 31/12/2014
Financing: 102.709,51 euros

Main Researcher (LIDIA-CITIC:) Bertha Guijarro Berdiñas.

13. **Title:** BIO+: Development of new technologies for high efficiency biomass boilers
Financing by: ROCA/ROIBAS, KEYPLAN, CDTI. Program FEDER-INNTERCONECTA 2013 (ITC-20133060)
Participants: Group LIDIA-CITIC, ROCA/ROIBAS, KEYPLAN, Tech Center AIMEN.
FROM: 01/04/2013 **TO:** 31/12/2014
Financing: 81.675,00 euros
Main Researcher (LIDIA-CITIC:) Óscar Fontenla Romero.
14. **Title :** Data mining: Machine Learning para Meteo for Energy
Financing by: Meteo for Energy
Participants: Group LIDIA-CITIC, Meteo for Energy
FROM: 01-12-2015 **TO:**31-12-2015
Financing: 4379,31 euros
Main Researcher (LIDIA-CITIC:) Amparo Alonso Betanzos.
15. **Title :** MEET: Interdisciplinary Tumor Committee for the integral support of oncological patients
Financing by: CDTI. Program FEDER-INNTERCONECTA 2015 (ITC-20151165)
Participants: Group LIDIA-CITIC, Bahia Software SLU.
FROM: 2015 **TO:**2017
Financing: 61.166,67 euros
Main Researcher (LIDIA-CITIC:) Amparo Alonso Betanzos.
16. **Title:** APIA-Airport Pavement Index Assessment
Financing by: CDTI. Program FEDER-INNTERCONECTA 2015
Participants: Group LIDIA-CITIC, Ghenova Ingeniería S.L.
FROM: 2015 **TO:**2017
Financing: 148.086,78 euros
Main Researcher (LIDIA-CITIC:) Óscar Fontenla Romero.
17. **Title:** Data science and data engineering for the evaluation, populational and personalized predictions of COVID-19 evolution
Financing by: GAIN- Xunta de Galicia
Participants: Several research groups at CITIC-UDC
FROM: 2020 **TO:**2022
Financing: 311.137,00 euros
MAIN RESEARCHER: Ricardo Cao Abad.
18. **Title:** Smart Learn Platform 4.0 for People (SLP4P)
Financing by: InnovaLabs Digital by competitive project ConectaHub 2021, GAIN- Xunta de Galicia.
Participants: InnovaLabs Digital, LIDIA Research group
FROM: 2021 **TO:**2023
Financing: 35.123,88 euros

Main researcher (LIDIA-CITIC:) Bertha Guijarro Berdiñas and Óscar Fontenla Romero.

19. **Title:** O estaleiro do futuro (The shipyard of the future) **Financing by:** Xunta de Galicia, IN853C2022/01
Participants: Mixed Research unit UDC-Navantia **FROM:** 2022 **TO:**2025
Financing: 3.750.000 Euros

6. COURSES, CONFERENCES AND SEMINARS (2013-22)

6.1. Invited speaker in Courses, Seminars and Conferences

1. Sustainable AI, in Session Disruptive Computation. INL Summit, Transitions 2022. Braga, June 20th, 2022.
2. Conference “Artificial Intelligence and Sustainability”. Corunna Innovate Summit, June, 16th 2022.
3. Conference “Mission Equality: Why do we need feminist algorithms?”. Closing Conference Mujeres Sector Público, A Coruña, 03 June 2022.
4. Conference, ”How is AI going to change our lives?” Private Capital and Biotech Sector Meetings. Bio& Tech Smart Capital. A Coruña, 29th March, 2022.
5. Webminar “Low Carbon Economy and Artificial Intelligence: Some use cases”. NTNU Energy Transition Initiative, March, 18th, 2022.
6. Webinar of the Young Academy of Spain of the International Day of Women and Girls in Science, 11th February, 2022.
7. III Technological Forum. Galicia Economical Forum. Comentarist, 15th December, 2021.
8. Artificial Intelligence is not Science Fiction. Illa de Ons (Bueu). Activity of the Royal Galician Academy of Sciences 09-12-2021.
9. Is artificial intelligence so smart? Ikerbasque Dialogues webinar, with Daniel Innerarity, moderated by Fernando Cossío. 29th November, 2021.
10. Artificial Intelligence and Obstetrics. Closing Conference 74th Congress of the Galician Society of Obstetrics and Gynecology. A Coruña, 27th November 2021.
11. The ICT City: Building a digital future. International University Menéndez Pelayo- UIMP A Coruña, 04-05 November, 2021.
12. Santiago Letters. Humanism and Artificial Intelligence round table. Santiago de Compostela, 04-07 November 2021.
13. Plenary Conference in the Conference in Digital Humanities HDH2021. The Humanities in the era of Artificial Intelligence. Cooperating to model sustainability. 08-October-2021.
14. II Forum of Prospective Economy of Galicia . UIMP A Coruña, 21-22 October, 2021.

15. Pannel Speaker for Special Committee on Beating Cancer of the European Parliament (BECA) Public Hearing: “Unlocking the potential of artificial intelligence in cancer research and care, 27 May 2021
16. Education and Artificial Intelligence. Virtual Educa, Global Academic Congress “Educational ecosystems for the digital age”. 03-05 march 2021.
17. Artificial Intelligence and Gender, Seminar Covid and Technology in Key of Gender 2020. Institute for Women and for Equal Opportunities. Ministry of Equality, 19 October, 2020.
18. Artificial Intelligence: An opportunity for Spain, The necessary development of AI in Spanish companies.1st Space Industrial Economy 5.0 Sevilla Virtual Summit. 16-17 December, 2020.
19. Inaugural Conference Chair Feminisms 4.0 University of Vigo. “Artificial Intelligence and Gender Bias”. Vigo, 12 December, 2019.
20. Round table “Science and Artificial Intelligence”. A Award Ceremony Boehringer Ingelheim 32º Edition . Madrid, 28 November, 2019.
21. Round Table “Shortage and future of female talent in IT employment”. Presentation of the IT and Women employment report. Madrid, 28 November, 2019.
22. WinterLab. Laboral Centro de Arte y Creación Industrial. “ Towards an Artificial Intelligence closer to the human”. Gijón, 23 November, 2019.
23. XXVI Philosophy Conference. Thought and Artificial Intelligence. “Artificial Intelligence: A challenge for the 21st century”. Concello de Vigo, 14-17 October, 2019.
24. Conference on Artificial Intelligence at the service of Society. Round Table.Impact of Artificial Intelligence in Society and in the labor market. UNIA, Málaga, 4 October 2019.
25. Inaugural Lecture Opening National Academic Course at the UDC, with the assistance of H.M. Felipe VI. “Artificial Intelligence: To be or not to be in the 21st century”. 30 September 2019.
26. Table Debate on “Artificial Intelligence”. Maker Faire Galicia 2019, Santiago de Compostela, 3 July, 2019.
27. Table Debate on the Spanish I+D+I strategy on Artificial Intelligence. III Conference Microsoft Chair on Artificial Intelligence and Human Development. Theme “The transformation of education by and for Artificial Intelligence”. Santiago de Compostela, 27 June 2019.
28. Table Debate on “Intelligence in constant evolution. From human intelligence to artificial intelligence”. 20th anniversary Pfizer Foundation, Domus
Date: 13-June-2019, A Coruña
29. Table Debate “The impact of AI on our society. challenges and opportunities”. Central Headquarters CSIC,
Date: 05-June-2019, Madrid.
30. Presentation in EnredaTIC. “The risk of losing the future: Artificial Intelligence”. Networking Journey Cluster TIC Galicia.
Date: 24 April 2019, Santiago de Compostela.

31. Artificial Intelligence: progress, risk, challenge?
CONFERENCE: APD. El mundo que viene. Humanizando la digitalización.
Date: 04 December, 2018.
32. Comunicación y Democracia (Communication and Democracy.)
CONFERENCE: Speaker in Mobile Week Coruña, Mobile World Capital, A Coruña.
Date: 23 November, 2018.
33. Detección de anomalías en máquinas (Anomaly Detection in Machines)
CONFERENCE: Escuela Militar Antonio Ascaño
Date: Ferrol, 20th, November 2018.
34. Beyond accuracy and time: Preservation of privacy, explainability or reduced-precision approaches in Machine Learning.
CONFERENCE: Big Data Spain, Madrid.
Date: 13-15 November, 2018.
35. Privacy-preserving, explainability and reduced-precision approaches in Machine Learning.
CONFERENCE: BiDAS3, 3rd Bilbao Data Science Workshop. Basque Center for Applied Mathematics.
Date: 8-9 November, 2018.
36. Oportunidades y retos de la Inteligencia Artificial. (Opportunities and Risks of Artificial Intelligence)
CONFERENCE: Tecnologías emergentes e impacto en la sociedad. (Emergent Technologies and their impact in society). Cursos de La Granda.
Date: La Granda (Asturias), 8-9 August, 2018.
37. Fundamentos de Inteligencia Artificial (Foundations of Artificial Intelligence)
CONFERENCE: Escuela Militar Antonio Ascaño
Date: Ferrol, 26th April de 2018.
38. Inteligencia Artificial (Mesa de Experiencias) Artificial Intelligence (Round Table of experiences)
CONFERENCE: XL Desafío. Empleabilidad, Futuro y Nuevas Competencias'.
Date: A Coruña, 20 February 2018
39. Inteligencia Artificial (mesa redonda) Artificial Intelligence. Round table
CONFERENCE: VII Jornada Anual del Foro de la Gobernanza en Internet
Date: Madrid, 29-November-2017.
40. Title: AI: The next frontier
CONFERENCE: Big Data Spain 2017
Date: Madrid, 16, November, 2017.
41. Title: Big Data: Más allá de la clasificación y la regresión (Big data: Beyond classification and regression)
CONFERENCE: Ferrol, XIII Conference Galego de Estadística e Investigación de Operacións, SGA-PEIO
Date: 28-October-2017.
42. Title: An Introduction to Big Data.
CONFERENCE: Artificial Intelligence Techniques for Data Mining & Big Data.
Date: Pamplona, 04-April- 2017

43. Title: Data Science: A state of the art
CONFERENCE: WIDs: Women in Data Science 2017
Date: Madrid, 03-February-2017
44. Title: Growing data Scientists
CONFERENCE: Big Data Spain 2016
Date: Madrid, 17-November-2016.
45. Title: Investigar en Europa. Boas prácticas (Doing research in Europe:Best Practices)
CONFERENCE: Foro Xuventude en Movemento
Date: A Coruña, 10-November-2016.
46. Title: Big data, ¿por qué?¿para qué? (Big Data: Why? What for?)
CONFERENCE: Ciclo de Conferencias Ciencia exPress. Universidade da Coruña. Asociación de Prensa de La Coruña
Date: A Coruña, 2-June-2016.
47. Title: Begin at the beginning: Feature Selection for Big data
CONFERENCE: Big Data Spain 2015
Date: Madrid, 15-October-2015.
48. Title: Investigar en Big Data Learning, ¿una profesión con futuro? (Researcher in Big Data Machine Learning: a profession with a future?)
CONFERENCE: Workshop on Big Data and Statistics.
Date: A Coruña, 19-June-2015.
49. Title: Divide et Impera: Distributed Machine Learning.
CONFERENCE: Invited Talk in UPF-DTIC Research Seminar Abstracts, Universitat Pompeu Fabra, Barcelona.
Date: Barcelona, 28-05-2015.
50. Title: A walk on the hybrid side.
CONFERENCE: Invited Talk in HAIS (Hybrid Artificial Intelligence Systems), 2014
Date: Salamanca, 11-06-2014.

6.2. Organization of Courses and Conferences

1. Thirty-Fourth AAAI Conference on Artificial Intelligence (AAAI 2022, AAAI 2021, AAAI 2020). Program Committee Member. Student Abstracts and Poster Program.
2. 30th International Joint Conference on Artificial Intelligence (IJCAI-21). Senior Program Committee Montreal (Canada), 19-26 August, 2021.
3. International Work-Conference on Artificial Neural Networks (IWANN 2021). Program Committee Member and Special Session Organizer. Online in June, 2021.
4. European Conference on Artificial Intelligence, ECAI 2020. Workshops Organizers Committee. Santiago de Compostela (Spain) August-September, 2020 (online).
5. NeurIPS 2019, NeurIPS 2020. Program Committee Member. New York City (USA), February, 2020.

6. International Work-Conference on Artificial Neural Networks (IWANN 2019). Committee Program Member, Gran Canaria (Spain), June 2019.
7. WETICE 2019. Program Committee Workshop Data Exploration in the Web 3.0 Age. Capri (Italy). June, 2019.
8. ESANN 2019. Scientific Committee and Special Session organizer in Parallel and Distributed Machine Learning Theory and Applications. Brujas, April, 2019.
9. CAEPIA 2018. Organization of Workshop. Member of Scientific Committee
Place: Granada (Spain)
Date: October, 2018.
10. Big Data Coruña 2017. Organization.
Place: A Coruña (Spain)
Date: 2017, 2016.
11. 10th International Conference on Practical Applications of Computational Biology & Bioinformatics (PACBB'16) . Program Committee member.
Place: Sevilla (Spain)
Date: June, 2016.
12. 9th IEEE International Conference on Big Data Science and Engineering (IEEE BigDataSE-15). Program Committee member.
Place: Helsinki (Finlandia)
Date: August, 2015.
13. International Work-Conference on Artificial Neural Networks (IWANN 2015). Program Committee member.
Place: Tenerife (Spain)
Date: June, 2015.
14. Spark Training Course. Organización.
Place: A Coruña (Spain)
Date: 04-05/05, 2015.
15. 13th International Conference on Practical Applications of Agents and Multi-Agent Systems (PAAMS 2015). Track Chair.
Place: Salamanca (Spain)
Date: June, 2015.
16. 9th International Symposium on Intelligent Distributed Computing (IDC 2015). Program Committee member.
Place: Guimarães (Portugal)
Date: October, 2015.
17. 9th International Conference on Practical Applications of Computational Biology & Bioinformatics (PACBB'15) . Scientific Committee member.
Place: Salamanca (Spain)
Date: June, 2015.

18. 8th International Conference on Practical Applications of Computational Biology & Bioinformatics (PACBB'14) . Scientific Comittee member.
Place: Salamanca (Spain)
Date: June, 2014.
19. 9th International Symposium on Intelligent Distributed Computing(IDC 2014). Program Comittee member.
Place: Madrid (Spain)
Date: September, 2014.
20. 1ª Escuela de Verano de Inteligencia Artificial (EVIA 2014)- Summer School on Artificial Intelligence. Organizing Comittee
Place: A Coruña (Spain)
Date: September, 2014.
21. 9th International Conference on Hybrid Artificial Intelligence Systems (HAIS 2014). Honorary Chair. Plenary Conference.
Place: Salamanca (Spain)
Date: June, 2014.
22. 15th CONFERENCE de la Asociación Española para la Inteligencia Artificial, CAEPIA 2013. Executive Comittee member CAEPIA 2013
Place: Madrid (Spain).
Date:September, 2013.
23. 7th International Conference on Practical Applications of Computational Biology & Bioinformatics (PACBB'13) . Scientific Comittee member.
Place: Salamanca (Spain)
Date: Mayo, 2013.
24. 2nd International Workshop on Artificial Intelligence and NetMedicine (NetMed). Program Comittee member.
Place: Beijing (China).
Date:August, 2013.
25. International Work-Conference on Artificial Neural Networks (IWANN 2013). Program Comittee member
Place: Tenerife (Spain)
Date: June, 2013.
26. 5th International Work-Conference on the Interplay between Natural and Artificial Computation (IWINAC). Scientific Comittee member
Place: Mallorca (Spain)
Date: June, 2013.

7. Grants, Research Tracks and Awards

7.1. Grant

1. Grant National Plan F.P.I. Predoctoral Grants Spain. Prioritary track in Artificial Intelligence. Period: 84-88

2. Grant Xunta de Galicia for stays abroad of researchers. Period: September-December, 1986.
3. Grant from University of Santiago for USA research stays. September-December 1985
4. Grant National Plan F.P.I. General Program abroad for Postdoc. Period: September 1986- August 1990.
5. Grant National Plan F.P.I. Returning to Spain program. Period: September-November, 1990.

7.2. Research tracks

1. CONCEPT: Research Tracks
PERIOD: 1988-1993
ORGANISM: Comisión Nacional Evaluadora de la Actividad Investigadora
RESOLUTION: 25 October de 1995
EVALUATION: Positive
2. CONCEPT: Research Tracks
PERIOD: 1994-99
ORGANISM: Comisión Nacional Evaluadora de la Actividad Investigadora
RESOLUTION: 27 June 2000
EVALUATION: Positive
3. CONCEPT: Research Tracks
PERIOD: 2000-05
ORGANISM: Comisión Nacional Evaluadora de la Actividad Investigadora
RESOLUTION: 7 June 2006
EVALUATION: Positive
4. CONCEPT: Research Tracks
PERIOD: 2006-2011
ORGANISM: Comisión Nacional Evaluadora de la Actividad Investigadora
RESOLUTION: 6 June 2012
EVALUATION: Positive
5. CONCEPT: Research Tracks
PERIOD: 2012-2017
ORGANISM: Comisión Nacional Evaluadora de la Actividad Investigadora (CNEAI)
RESOLUTION: 6 June 2018
EVALUATION: Positive

7.3. Transference tracks

1. CONCEPT: Transference track
PERIOD: 2005-2015
ORGANISM: Comisión Nacional Evaluadora de la Actividad Investigadora
RESOLUTION: 16th, December 2019
EVALUATION: Positive

7.4. Awards

1. Extraordinary Award for Thesis. Facultad de Física. University of Santiago, 1988
2. "Award of Merit" from Quest Publishing Company, for significative contributions in the field of Clinical Engineering, January 1990
3. Spanish Awards and European finalist in Helena Rubinstein Award "Women in Science", joined with UNESCO. January, 1998.
4. Award in I Edition Awards GaliciaTIC to Digital Innovation to the research project "Multiagent architecture for intelligent intrusion detection, Principal Researcher. October, 2004.
5. Award Galicia ICT to the career path. 07-February-2019.
6. Award Josefa Wonenburger Planells from Xunta de Galicia, 2020.
7. Award Galician of the Year, 2020. Group Correo Gallego
8. Award "Women and Science 2021". Women CEO.

8. Teaching

8.1. Teaching in Pre-Bologna Computer Science

Subject	Academic year
Expert Systems 2003/04;	1996/97; 1997/98; 1998/99; 1999/2000; 2002/03; 2004/05; 2005/06; 2006/07; 2007/08; 2010/11 2011/12; 2012/13
Artificial Intelligence and Knowledge Engineering	97/98
Artificial Intelligence	97/98; 98/99; 2000/01; 2001/02; 02/03, 2003/04; 04/05; 05/06, 06/07, 07/08; 09/10; 10/11
Artificial Vision	1997/98
Discrete Mathematics	2005/06
Principles of Computer Analysis	2005/06
Final Degree project	2016/17

8.2. Teaching in Bologna Degrees, Graduate level

Subject	Academic year
Intelligent Systems	2011/12; 2012/13; 2013/14; 2014/15; 2015/16; 2016/17; 2017/18; 2019/20; 2020/21; 2021/22
Knowledge representation and automatic reasoning	2012/13; 2013/14; 2014/15
Knowledge Engineering	2012/13; 2013/14; 2014/15; 2015/16; 2016/17; 2017/18; 2018/19; 2019/20; 2020/21; 2021/22
Software Design	2013/14; 2014/15
Final Degree project	2013/14; 2015/16; 2016/17; 2018/19; 2020/21; 2021/22

8.3. Teaching in Master Level

I have been teaching in the Master of Computer Science (CS), Master on Bioinformatics for Health sciences (BHS) and Master of Law and AI (LAI), the following subjects:

Subject	Academic year
Artificial Intelligence (CS)	2007/08; 2008/09; 2009/10; 2010/11
Machine Learning (CS)	2007/08; 2008/09; 2009/10; 2010/11; 2011/12
Knowledge Engineering (CS)	2007/08; 2008/09; 2009/10; 2010/11; 2011/12
Multiagent Systems (CS)	2007/08; 2008/09; 2009/10; 2010/11
Intelligent Monitoring (CS)	2013/14; 2015/16; 2016/17; 2018/19; 2020/21; 2021/22
Debate Seminars (CS)	2010/11; 2011/12
Foundations of Artificial Intelligence (BHS)	2017/18
Computational Intelligence for large dimensional datasets (BHS)	2017/18
Privacy and personal data (LAI)	2020/21
Process and ICT (LAI)	2020/21

8.4. Projects for improving teaching quality

1. TITLE: Support for the use of ICT in university degrees. Subject: Artificial Intelligence, 4th year in Computer Science.
FINANCING: University of A Coruña (UDC)
DATE: 2003-2004
2. TITLE: I CALL FOR THE CREATION OF QUALITY DEPARTMENTAL GROUPS. Subject: Artificial Intelligence.
FINANCING: University of A Coruña (UDC)
DATE: September 2004 through July 2005.
3. TITLE: II CALL FOR THE CREATION OF QUALITY DEPARTMENTAL GROUPS. Subjects (5): Artificial Intelligence; Knowledge Engineering, Expert Systems, Principles of Computer Analysis and Discrete Mathematics.
FINANCING: University of A Coruña (UDC)
DATE: September 2005 through July 2006.
4. TITLE: II CALL FOR CONTRACTS PROGRAM FOR STRATEGIC DESIGN AND INNOVATION IN UDC. Teaching staff
FINANCING: University of A Coruña (UDC)
DATE: June 2006 to June 2007.
5. TITLE: IV CALL FOR A CONSOLIDATION AND FOR THE CREATION OF QUALITY DEPARTMENTAL GROUPS (2): GDC N° 61 and 168
FINANCING: University of A Coruña (UDC)
DATE: September 2007 to July 2008.
6. TITLE: IV CONTRACTS PROGRAM FOR STRATEGIC DESIGN AND INNOVATION IN UDC.
FINANCING: University of A Coruña (UDC)
DATE: September 2009 to July 2010.

7. TITLE: I Call for creation and acknowledgement of Teaching Innovation Groups at UDC. FINANCING: University of A Corunna (UDC)
DATE: academic year 2017/18.
8. TITLE: II Call for creation and acknowledgement of Teaching Innovation Groups at UDC. FINANCING: University of A Corunna (UDC)
DATE: academic year 2018/19.
9. TITLE: Teaching Innovation Groups at UDC. Subject: Intelligent Systems FINANCING: University of A Corunna (UDC)
DATE: academic year 2020/21.
10. TITLE: Teaching Innovation Groups at UDC. Subject: Knowledge engineering FINANCING: University of A Corunna (UDC)
DATE: academic year 2021/22.

9. MEMBER OF SCIENTIFIC SOCIETIES (2013-18)

1. SOCIETY: Spanish Association for Artificial Intelligence. Member. Member of the Board of Directors 2009-2011. Vicepresident 2012-13. President from September, 2013 until present date.
2. SOCIETY: IEEE Senior Member No. 8670481
DATE: 1987, until present date.
3. SOCIETY: IEEE "Engineering in Medicine and Biology"
DATE: 1989 until present date.
4. SOCIETY: IEEE Computer
DATE: 1989, until present date.
5. SOCIETY: ACM (Association for Computer Machinery), Voting, No. 3693603
DATE: 1990, until present date.
6. SOCIETY: IAKE (International Association of Knowledge Engineers), No. 222D1699
DATE: 1991
7. SOCIETY: New York Academy of Sciences
DATE: 1992

10. STAYS ABROAD (longer than 1 month)

1. CENTRE: Computational NeuroEngineering Laboratory. Department of Electrical Computer Engineering. University of Florida, USA. August-September, 1997.
2. CENTRE: University of Oporto, Portugal. September, 1996.
3. CENTRO: INESCIN (Instituto Nacional de Engenharia de Sistemas y Computadores), Oporto, Portugal. March, 1995.

4. CENTRE: Department of Obstetrics & Gynecology. Medical College of Georgia, Augusta, GA, USA, October-November, 1993.
5. CENTRE: Department of Biomedical Engineering. Medical College of Georgia, Augusta, GA, September 1988-August 1990.
6. CENTRE: Department of Biomedical Engineering. Medical College of Georgia, Augusta, GA. USA, September-December, 1987.
7. CENTRE: Department of Obstetrics & Gynecology. Medical College of Georgia, Augusta, GA, USA. September- December 1986.

11. Scientific Journals: COMMITTEES (2013-18)

1. Associate Editor Journal Computational Intelligence and Neuroscience, JCR (Q3), from 06/2017 until present date.
2. Editorial Board of Journal Progress in Artificial Intelligence, indexed in Emerging Sources Citation Index and SCOPUS.

12. OTHER MERITS (2013-2018)

- Member of the Scientific Committee of the Valencian Graduate School and Research Network of Artificial Intelligence (valgrAI), since November, 2021.
- Member of the Scientific Committee of the Institute of Data Science and Artificial Intelligence of the University of Navarra, since March, 2021.
- Member of the Plenary of the National Commission for the Evaluation of Research Activity (CNEAI), since January, 2021. 020.
- Group of Experts RIS 3 Galicia, Galician Innovation Agency 2021.
- Expert group of the Ex-ante Evaluation process Andalusian RDI Strategy, 2021
- Expert Group “Analysis of the transfer situation in Galicia 2011-2018” Program Ignitia. Xunta de Galicia, 2021.
- Member of CAIA, Artificial Intelligence Advisory Council of the Government of Spain, since June 2020
- Member of the Working Group on the role of Official Statistics in Data Administration and Management (Data Stewardship) of the Higher Council of Statistics, 2020.
- Commissioner of the UDC for the development of the Artificial Intelligence node of the ICT city, from 01-11-2019.

- Member of the Reserve List of the High-Level Expert Group on Artificial Intelligence (AI HLG), from 11 de June 2018. Responsibilities of the Reserve list members are: (i) serve to appoint replacements of the AI HLG experts, and (ii) be privileged invitees of the dedicated workshops organised at the Commission with the AI HLG. These workshops will focus more in depth on one or more tasks of the AI HLG, such as the themes to address in the AI ethics guidelines, or the policy and competitiveness recommendations for the EU.
- Member of the European AI Alliance, invited, from 11 de June 2018.
- Member of the Spanish Work Group on Artificial Intelligence (GTIA, Grupo de Trabajo en Inteligencia Artificial) of the Spanish Ministry of Science, innovation and Universities (Ministerio de Ciencia, Innovación y Universidades (MINCIU)), which main responsibilities are the elaboration of a Draft for designing the Spanish AI strategy, 2018.
- Coordinator of the "Máster Universitario en Bioinformática para Ciencias de la Salud." of the Facultad de Informática, University of A Coruña, from 19 May 2016 until 30 May 2017.