

Roi Naveiro

TENURE TRACK ASSISTANT PROFESSOR · CUNEF UNIVERSITY

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Education

PhD in Statistics and Operations Research. ICMAT - Institute of Mathematical Sciences from the Spanish Research Council and Complutense University of Madrid

Madrid, Spain

CUM LAUDE AND INTERNATIONAL DISTINCTIONS. AWARDED BY THE SPANISH NATIONAL RESEARCH COUNCIL (CSIC) AS THE BEST DOCTORAL THESIS IN ARTIFICIAL INTELLIGENCE RESEARCH.

2016 - 2020

- Advisors: Professor David Ríos Insua (ICMAT) and Professor David Gómez-Ullate (IE University)

Masters degree in theoretical physics. Complutense University of Madrid

Madrid, Spain

GPA: 9.2/10

2015 - 2016

- Thesis title: *Fraud Detection in Electronic Payments*.
- Thesis advisor: David Gómez-Ullate Oteiza (University of Cádiz & Complutense University of Madrid)

Bachelor degree in physics. University of Salamanca

Salamanca, Spain

GPA: 9.07/10

2011 - 2015

- Thesis title: *Resolution of the Nucleon-Nucleon scattering problem using the N/D method*
- Thesis advisor: David Rodríguez Entem (University of Salamanca)

Professional Experience

- 2022- **Tenure Track Assistant Professor**, CUNEF University, Madrid
- 2025- **Coordinator of the Bayesian Inference Section**, Spanish Statistics and Operations Research Society
- 2021- **Scientific Advisor**, Aitenea Biotech S.L.
- 2020-2022 **Postdoctoral Fellow**, Institute of Mathematical Sciences from the Spanish Research Council (ICMAT-CSIC)
- 2016-2020 **PhD Student**, Institute of Mathematical Sciences from the Spanish Research Council (ICMAT-CSIC)
- 2015 **Research Assistant**, Astrophysical Institute of the Canary Islands, Tenerife, Canary Islands, Spain
- 2014-2015 **Undergraduate Research Assistant**, Institute of Fundamental Physics and Mathematics, Salamanca, Spain

Research Stays

- 2023 Jan – **Middlebury College, Middlebury, Vermont USA**, Working with Prof. Becky Tang. Middlebury, VT, USA
- 2023 Feb
- 2022 Mar – **Texas State University, Austin, Texas, USA**, Working in project “Poisoning Hidden-Markov-Model Inferences on Batch Data” with Prof. Tahir Ekin. Funded by *European Office of Aerospace Research and Development (EOARD)*. Austin, TX, USA
- 2022 May
- 2019 Aug – **Statistical and Applied Mathematical Sciences Institute (SAMSI) and Department of Statistical Science, Duke University**, Working in research programs on Deep Learning and Games, Decisions, Risk and Reliability. Durham, NC, USA
- 2019 Dec
- 2018 Aug – **Department of Statistical Science, Duke University**, Working with Prof. David L. Banks. Durham, NC, USA
- 2018 Dec

Publications

* *equal contribution*

PUBLISHED PAPERS

Simulation Based Bayesian Optimization (2025). **Naveiro, R.*** & Tang, Becky. *Statistics and Computing*.

Evasion Attacks Against Bayesian Predictive Models (2025). García-Arce, P.*, **Naveiro, R.***, & Ríos Insua, D.* *Uncertainty in Artificial Intelligence*.

- Poisoning Bayesian Inference via Data Deletion and Replication (2025). Carreau, M.*, **Naveiro, R.***, & Caballero, W. N. *International Conference on Artificial Intelligence and Statistics*.
- Clinical outcomes after 2-year follow-up of transvaginal radiofrequency ablation of symptomatic uterine fibroids (2025). Santalla-Hernández, Á., Naveiro-Fuentes, M., López-Criado, M. S., **Naveiro, R.***, & Fernández-Parra, J. *Journal of Obstetrics and Gynaecology Research*. <https://doi.org/10.1111/jog.16216>
- Personalized pricing decisions through adversarial risk analysis (2025). García Rasines, D.*, **Naveiro, R.***, Ríos Insua, D.*, & Santana Rodríguez, S.* *International Transactions in Operational Research*. <https://doi.org/10.1111/itor.13545>.
- Sex-specific dietary patterns and their association with metabolic syndrome: Insights from a cross-sectional analysis (2024). Popescu, M. L., ..., **Naveiro, R.**, *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*. <https://doi.org/10.1016/j.dsx.2024.103123>.
- Adversarial Risk Analysis for Automated Lane-Changing in Heterogeneous Traffic(2024). **Naveiro, R.***, Caballero, W. N.* & Ríos Insua, D.* (2024). *International Conference on Algorithmic Decision Theory* (pp. 128-143). Cham: Springer Nature Switzerland. https://link.springer.com/chapter/10.1007/978-3-031-73903-3_9
- Algorithmic Decision Analysis for Multi-stage Games with Incomplete Information (2024). Camacho, J. M.*, **Naveiro, R.*** & Ríos Insua, D. *International Conference on Algorithmic Decision Theory* (pp. 98-112). Cham: Springer Nature Switzerland. https://link.springer.com/chapter/10.1007/978-3-031-73903-3_7
- Protecting Classifiers from Attacks (2024). Gallego, V.*, **Naveiro, R.***, Ríos Insua, D.*, & Ruggeri, F. *Statistical Science*. <https://doi.org/10.1214/24-STS922>.
- Manipulating hidden-Markov-model inferences by corrupting batch data (2024). Caballero, W.*, Camacho, J. M.*, Ekin, T., & **Naveiro, R.*** *Computers & Operations Research*. <https://doi.org/10.1016/j.cor.2023.106478>
- Adversarial Machine Learning: Bayesian Perspectives (2023). Ríos Insua, D.*, **Naveiro, R.***, Gallego, V.*, & Poulos, J. *Journal of the American Statistical Association*. <https://doi.org/10.1080/01621459.2023.2183129>
- Augmented Probability Simulation Methods for Sequential Games (2023). Ekin, T., **Naveiro, R.***, Insua, D. R.*, & Torres-Barrán, A.* *European Journal of Operational Research*. <https://doi.org/10.1016/j.ejor.2022.06.042>. **FBBVA-SEIO Best Paper Award: Methodological contribution in Operational Research**
- Design of new dispersants using machine learning and visual analytics (2023). Jimena, M.*, **Naveiro, R.*** et. al. *Polymers*. <https://doi.org/10.3390/polym15051324>
- Deep learning for novel drug development (2023). **Naveiro, R.***, Martínez, M. J., Soto, A., Ponzoni, I., Ríos Insua, D. & Campillo, N. E. *Cheminformatics, QSAR and Machine Learning applications for Novel Drug Development*. Elsevier (To appear).
- Statistical Challenges in Automated Driving Systems (2023). Caballero, W.*, **Naveiro, R.***, & Ríos Insua, D.* *Applied Stochastic Models in Business and Industry*. <https://doi.org/10.1002/asmb.2765>
- Augmented probability simulation for adversarial risk analysis in general security games (2022). **Naveiro, R.**, Insua, D. R., & Camacho, J. M. *Defense and Homeland Security Simulation Workshop. I3M*. <https://www.cal-tek.eu/proceedings/i3m/2022/dhss/002/pdf.pdf>. **Best Paper Award.**
- Evaluation of female sexual health in routine gynaecological practice (2022). Fuentes, M. N., Villena, R. B., **Naveiro, R.**, Sánchez, M. H., Roca, L. C., & Parra, J. F. *Clínica e Investigación en Ginecología y Obstetricia*, 49(3), 100768. <https://doi.org/10.1016/j.gine.2022.100768>
- Adversarial Risk Analysis (Overview) (2022). Banks, D.*, Gallego, V.*, **Naveiro, R.***, & Ríos Insua, D.* *WIREs Comput Stat*, e1530, 1–16. <https://doi.org/10.1002/wics.1530>
- Managing Driving Modes in Automated Driving Systems (2022). Ríos Insua, D.*, Caballero, W.*, & **Naveiro, R.*** *Transportation Science*, 0(0). <https://doi.org/10.1287/trsc.2021.1110>
- Modeling Ethical and Operational Preferences in Automated Driving Systems (2022). Caballero, W.*, **Naveiro, R.*** & Ríos Insua, D.* *Decision Analysis*, 19(1):21–43. <https://doi.org/10.1287/deca.2021.0441>. **Finalist of the 2022 Clemen-Kleinmuntz Decision Analysis Best Paper Award**
- Towards Acceptance of Automated Driving Systems (2021). Jamson, S. L., Risvas, K., **Naveiro, R.**, et. al. *5th Int. Conf. on Computer-Human Interaction Research and Applications (CHIRA 2021)*, 232–239. <https://www.scitepress.org/Papers/2021/107213/107213.pdf>.

Challenge8: Smart Cybersecurity (2021). Arroyo Guardado, D., Brox Jiménez, P., Godoy, J. A., Villagra, J., Mueller, H., Gallego, V., Kosgodagan, A., **Naveiro, R.**, et. al. *White Papers. CSIC Scientific Challenges: Towards 2030*, vol. 11.

Adversarial attacks against Bayesian forecasting dynamic models (2021). **Naveiro, R.*** *22nd European Young Statisticians Meetings (EYSM 2021)*. <https://www.eysm2021.panteion.gr/publications.html>

AI in drug development: a multidisciplinary perspective (2021). Gallego, V.* , **Naveiro, R.*** , Roca, C. et al. *Molecular Diversity*, 25(3):1461–1479. <https://doi.org/10.1007/s11030-021-10266-8>

Perspectives on Adversarial Classification (2020). Ríos Insua, D.* , **Naveiro, R.*** , & Gallego, V.* *Mathematics*, 8(11):1957. <https://doi.org/10.3390/math8111957>

Hydroxicloroquine for pre-exposure prophylaxis for SARS-CoV-2 (2020). Lopez de la Iglesia, J., Cubelos, N., **Naveiro, R.**, et. al. *Current Trends in Medicine*, 2(1):9–18. <https://doi.org/10.47726/ctm.1003>

Adversarial Classification: An adversarial Risk Analysis approach (2019). **Naveiro, R.*** , Redondo, A., Insua, D. R., & Ruggeri, F. *International Journal of Approximate Reasoning*, 113: 133–148. <https://doi.org/10.1016/j.ijar.2019.07.003>

Large Scale Automated Forecasting for Monitoring Network Safety and Security (2019). **Naveiro, R.*** , Rodríguez, S., & Ríos Insua, D. *Applied Stochastic Models in Business and Industry*, 35: 431–447. <https://doi.org/10.1002/asmb.2436>

Gradient Methods for Solving Stackelberg Games (2019). **Naveiro, R.*** , & Ríos Insua, D. In: Pekeč S., Venable K.B. (eds) *Algorithmic Decision Theory. Lecture Notes in Computer Science*, 11834: 126–140. Springer, Cham.

Reinforcement Learning under Threats. (2019). Gallego, V., **Naveiro, R.**, & Ríos Insua, D. *Proceedings of the AAAI Conference on Artificial Intelligence*, 33(01): 9939–9940. <https://doi.org/10.1609/aaai.v33i01.33019939>

PUBLISHED BOOKS

Bayesian Adversarial Machine Learning (2026). **Naveiro R.*** & Ríos Insua D.* *Taylor & Francis*. (Forthcoming).

¿Qué sabemos de Análisis de Riesgos? (2022). Ríos Insua D.* & **Naveiro R.***. *CSIC-La Catarata*. ISBN: 978-84-1352-458-0.

PREPRINTS

Computational adversarial risk analysis for general security games (2025). Camacho, J.M., **Naveiro, R.** & Tang, Becky. *arXiv preprint arXiv:2401.10811*.

Data Sharing Games (2020). Gallego, V.* , **Naveiro, R.*** , Ríos Insua, D.* , & Rozas W. *arXiv preprint arXiv:2101.10721* .

Opponent Aware Reinforcement Learning (2019). Gallego, V., **Naveiro, R.**, & Ríos Insua, D. *arXiv preprint arXiv:1809.01560*.

Patents

Polyisobutenyl succinimide-based compounds, Inventor. Patent WO 2025/027177 A1.

February 6, 2025 Co-invented with M. Bernabei, H. Lozano Ordoñez, F. Oliva Miñana, B. Domínguez Jimeno, G. Revilla López, M. Franco Fernández, R. J. Gómez Arrayás, S. H. Kim Lee, N. E. Campillo. Dispersant additive for engine lubricants, discovered using machine learning tools for molecular design.

Research and Transference Projects

AS PRINCIPAL INVESTIGATOR

January 2025 – June 2025	Computational Implementation of Decision-Making Models via Reinforcement Learning in a Flight Simulator , Industrial Partners: Komorebi AI and AIRBUS.	16,000 €
Jul 2023 – Dec 2023	Development and optimization of predictive models for the generation of NOR type protectors , Industrial Partners: Altenea Biotech and Repsol.	8,250 €
Jan 2023 – Jul 2023	Development and identification of new MILLAD-type clarifying molecules , Industrial Partners: Altenea Biotech and Repsol.	5,000 €

Jun 2022 – Nov 2022	TECA Project , Industrial Partner: DISID CORPORATION.	21,945.6 €
Oct 2021 – Feb 2022	Unit risk modeling and risk accumulation derived from cybersecurity for the development of version 4 of the DeRISK product , Industrial Partner: DENEXUS TECH, S.L.	37,382 €
Jan 2021 – Dec 2021	Machine Learning for dispersants discovery , Industrial Partners: Altenea Biotech and Repsol.	10,000 €
Mar 2021 – Oct 2021	Adversarial Risk Analysis for competitive decision making , Industrial Partners: EVERIS Spain SLU y CaixaBank.	60,000 €

AS INVESTIGATOR

Sep 2023 – Aug 2026	De novo design using Artificial Intelligence and synthesis of modulators of the protein-protein interaction targeting NCS-1 , Funding Entity: MICINN. Spanish Ministry of Science and Innovation.	
Jan 2023 – Dec 2025	A new paradigm for Adversarial Machine Learning , Funding Entity: MICINN. Spanish Ministry of Science, Innovation and Universities.	62,000 €
Sep 2021 – Aug 2023	Robust Command and Control under Adversarially Perturbed Data. Acronym: RC2APD , Funding Entity: EOARD. Reference: 13324227.	58.700 \$
Jul 2021 – Jul 2023	Hardening JADC2 to Adversarial Data: Theory, Algorithms and Applications , Funding Entity: Air Force Office of Scientific Research (AFOSR).	260.000 \$
Apr 2020 – Apr 2022	Adversarial Machine Learning: Methods, Computations and Applications to Malware, Fake News and Autonomous Vehicles , Funding Entity: BBVA Foundation.	100,000 €
May 2019 – Jul 2022	TRUSTONOMY. Building acceptance and trust in autonomous mobility , Program: Horizon 2020: Smart, Green and Integrated Transport. Ref: 815003. European Commission.	3,920,000 €
Sep 2019 – Sep 2021	Content Recommender Based on a User's Digital Profile , Industrial Partner: XEERPA MARKETING SOLUTIONS, SL.	90,750 €
Jan 2018 – Dec 2021	Advances in Risk Analysis for Security , Funding Entity: MICINN. Spanish Ministry of Science, Innovation and Universities. Reference: MTM2017-86875-C3-1-R.	32,186 €
Oct 2018 – Dec 2018	Innovative platform for Proximity Marketing and Payments at the Point of Sale, based on Bluetooth LE technology, which communicates with the user in a personalized way, in real time, in the right moment of the purchase decision and in the right place , Industrial Partner: SIEM, Software & Security Services, SL.	30,000 €
May 2017 – Apr 2019	Explora JUDIES: Stochastic Differential Games: Breaking Fifty Years of the Paradigm , Funding Entity: MICINN. Spanish Ministry of Science, Innovation and Universities. Reference: MTM2015-72907-EXP.	25,000 €
Jan 2017 – Jul 2017	Cyber-risks evaluation , Industrial Partner: LEAP IN VALUE, SL.	31,127.25 €
Sep 2014 – Aug 2022	Adversarial Risk Analysis , Funding Entity: AXA RESEARCH FUND.	1,176,000 €

Awards, Fellowships, & Grants

2024	Best Methodological Contribution in Operational Research Award. Paper: Augmented probability simulation for sequential games. , BBVA Foundation and Spanish Society of Statistics and Operations Research.
2022	Finalist of the 2022 Clemen-Kleinmuntz Decision Analysis Best Paper Award. Paper: Modeling Ethical and Operational Preferences in Automated Driving Systems , INFORMS
2022	Award for best doctoral thesis on basic research in artificial intelligence , AIHUB from the Spanish National Research Council
2022	Best paper award. Paper: Augmented probability simulation for adversarial risk analysis in general security games. , Int. Defense and Homeland Security Simulation Workshop

- 2019 **Funding for research stay at the SAMSI and Department of Statistical Science, Duke University, Durham, NC, USA., SAMSI and NSF**
- 2018 **Funding for short term research scholarship for a research stay at Duke University, Durham, North Carolina, USA., Spanish Ministry of Education**
- 2016 **FPU scholarship for PhD studies., Spanish Ministry of Education**
- 2015 **Research scholarship for a research stay at the Astrophysical Institute of the Canary Island, Tenerife, Spain., Astrophysical Institute of the Canary Island**
- 2014 **Research scholarship for a research stay at the Institute of Fundamental Physics and Mathematics, Salamanca, Spain., Spanish Ministry of Education**

Presentations

SELECTED INVITED TALKS

- May 29th 2025. 8th Games and Decisions in Risk and Reliability *Sensitivity of Bayesian inference to data deletion and replication*. Bocconi University, Milano, Italy.
- November 14th 2023. Event commemorating the Centennial of the Science School at the University of Valladolid. *Machine Learning and Molecular Design*. University of Valladolid, Valladolid, Spain.
- May 25th 2023. 7th Games and Decisions in Risk and Reliability *Simulation based Bayesian Optimization*. Royal Academy of Sciences, Madrid, Spain.
- March 18th 2023. *Simulation based Bayesian Optimization*. Artificial Intelligence Research Institute - Spanish National Research Council (IIIA-CSIC), Barcelona, Spain.
- July 6th 2022. EURO Conference. *Scalable methods for solving games in Adversarial Machine Learning*. Helsinki, Finland.
- June 24th 2022. Advances in Decision Analysis Conference. *Decision Analytic Support in Non-Cooperative Sequential Games*. Arlington, Virginia, USA.
- June 9th 2022. Spanish Society of Statistics and Operations Research National Congress. *An application of Bayesian methods in materials discovery*. Granada, Spain.
- Abril 25th 2022. Young Online Seminar Series Machine Learning NeEDS Mathematical Optimization. *Adversarial attacks against Bayesian dynamic forecasting systems*.
- Marzo 31st 2022. Texas State University. *Adversarial Machine Learning*. Texas State University, San Marco, Texas, USA.
- March 22nd 2022. Workshop: The Mathematics of Living Matter. Life-Hub CSIC. *Machine Learning for Molecular Design*. ICMAT-CSIC. Madrid, Spain.
- January 22nd 2022. Indoamérica Technological University. *Adversarial Machine Learning: Bayesian perspectives*. Indoamérica Technological University, Quito, Ecuador.
- November 1st 2021. IMI-DSC Conference: Decision, Optimization and Data Science. *Adversarial Machine Learning: a probabilistic approach*. Complutense University of Madrid. Madrid, España.
- September 7th 2021. 22nd European Young Statisticians Meeting EYSM 2021. *Adversarial attacks against Bayesian forecasting dynamic models*. Bernoulli Society for Mathematical Statistics and Probability. Athens, Greece.
- July 7th 2021. WEBINAR: Applications of AI in the discovery of intelligent materials and in the improvement of processes in the chemical industry. *Artificial Intelligence in Lubricant Design*. PET MSO-ED, SusChem-España y Materplat.
- May 28th 2021. Twelfth Workshop on Bayesian Inference in Stochastic Processes. *Bayesian forecasting dynamic models under attacks*. Discussant: Professor Mike West. CNR-IMATI, Milano, Italia.
- November 1st 2019. Institute for Integrating Statistics in Decision Sciences. Dept. of Decision Sciences. George Washington University. *Security Games in the New Paradigm: Solution Techniques*. GWU, Washington D.C., USA.
- June 13th 2019. Eleventh Workshop on Bayesian Inference in Stochastic Processes. *Reinforcement Learning Under Threats*. Royal Academy of Sciences, Madrid, España.

SELECTED CONTRIBUTED PRESENTATIONS

May 2025. Artificial Intelligence and Statistics (AISTATS 2025). *Poisoning Bayesian Inference via Data deletion and Replication*. Phuket, Thailand.

June 2024. ISBA World Meeting. *Simulation-based Bayesian Optimization*. International Society for Bayesian Analysis. Venice, Italy.

November 10th 2021. New Bridges between Mathematics and Data Science. *Augmented probability simulation for optimization in adversarial machine learning*. Spanish Network of Industrial Mathematics (Math-In) and University of Valladolid. Valladolid, España.

September 2nd 2021. 4th International Congress on Transportation Research ICTR 2021. *Towards ethical decision support in automated driving systems*. Hellenic Institute of Transportation Engineers. Rhodes, Greece.

July 14th 2021. 63rd ISI World Statistics Congress, *Managing driving modes in Automated Driving Systems*. International Statistical Institute (ISI).

June 9th 2021. 2021 Workshop of the Spanish Society of Statistics and Operations Research *Protecting Classifiers From Attacks*.

October 26th 2019. Algorithmic Decision Theory. *Gradient Methods for Solving Stackelberg Games*. Duke Fuqua School of Business. Duke University, Durham, NC, USA.

August 6th 2019. Games, Decisions, Risk and Reliability Opening Workshop. *Augmented Probability Simulation Methods for Non-cooperative Games* (poster). Statistical and Applied Mathematical Sciences Institute. NC State University, Raleigh, NC, USA.

30 Julio 2019. Second Conference on Risk Analysis in the Digital Era. *Augmented Probability Simulation Methods for Non-cooperative Games* (poster). Society for Risk Analysis. University at Buffalo. Buffalo, NY, USA. Spanish Society of Statistics and Operations Research

30 Mayo 2018. XXXVII Spanish Society of Statistics and Operations Research National Congress. *Adversarial Classification: An Adversarial Risk Analysis approach*. SEIO. Oviedo, Spain.

November 14th 2017. 1st Spanish Young Statisticians and Operational Researchers Meeting (SYSORM). *Adversarial Classification: An Adversarial Risk Analysis approach*. Spanish Society of Statistics and Operations Research y University of Granada. Granada, Spain.

June 14th 2017. Bayesian Inference in Stochastic Processes (BISP10). *Monitoring for anomalous behaviour in massive traffic time series*. Bocconi University and International Society for Bayesian Analysis (ISBA). Milano, Italy.

June 8th 2017. Games and Decisions in Risk and Reliability Conference (GDRR). *Fraud detection in electronic payments*. Royal Academy of Sciences. Madrid, Spain.

October 27th 2016. Mathematical Solutions for Industry: Success Stories and perspectives. *Random Forest Algorithm in Fraud Detection* (poster). Institute of Mathematical Sciences (ICMAT-CSIC) y Spanish Network of Industrial Mathematics (Math-In). Madrid, Spain.

Teaching Experience

Fall 2025	Data Analysis Course for Third-Year Undergraduate Students in the Computer Science Program (60h) , Lecturer. Lecture notes at: https://cunef-aeinf-fall2024.github.io/	CUNEF University
Spring 2025	Data Analysis Course for Third-Year Undergraduate Students in the Mathematical Engineering and Double Degree Economics and Mathematical Engineering (120h) , Lecturer. Lecture notes at: https://cunef-aeinf-ecomat-spring2024.github.io/	CUNEF University
Fall 2024	Data Analysis Course for Third-Year Undergraduate Students in the Computer Science Program (60h) , Lecturer. Lecture notes at: https://cunef-aeinf-fall2024.github.io/	CUNEF University
Spring 2024	Data Analysis Course for Third-Year Undergraduate Students in the Mathematical Engineering Program (60h) , Lecturer. Lecture notes at: https://cunef-aeinf-spring2024.github.io/	CUNEF University

Fall 2023	Data Analysis Course for Third-Year Undergraduate Students in the Computer Science Program (60h) , Lecturer. Lecture notes at: https://cunef-aeinf-fall2023.github.io/	CUNEF University
Fall 2023	Data Analysis Course for Second-Year Undergraduate Students in the Economics Program (60h) , Lecturer. Lecture notes at: https://cunef-da-fall2023.github.io/	CUNEF University
Spring 2023	R Programming Course for First-Year Undergraduate Students in the Economics Program (60h) , Lecturer. Lecture notes at: https://roinaveiro.github.io/CU-programacion/	CUNEF University
Fall 2022	Data Analysis Course for Second-Year Undergraduate Students in the Economics Program (60h) , Lecturer. Lecture notes at: https://roinaveiro.github.io/CU-analisis-datos/	CUNEF University
Fall 2022	Introduction to Statistics for First-Year Undergraduate Students in the Mathematical Engineering Program (60h) , Lecturer.	CUNEF University
2021 Jun – 2021 Jul	Bayesian Methods in Artificial Intelligence Course for Senior Undergraduate and Master's Students (10h) , Lecturer. Lecture notes at: https://roinaveiro.github.io/curso-Bayes-JAE/	ICMAT-CSIC, Madrid, Spain
2021 Jun – 2021 Jul	Machine Learning: Foundations, Computations, and Applications Course for Senior Undergraduate and Master's Students (10h) , Lecturer. Lecture notes at: https://roinaveiro.github.io/curso-ml-JAE/	ICMAT-CSIC, Madrid, Spain
Fall 2020	Probability for Second-Year Undergraduate Students in the Mathematics Degree Program (15h) , Teaching Assistant	Complutense University
Spring 2019 and 2020	Applications of Stochastic Processes for Final-Year Undergraduate Students in the Mathematics Degree Program (60h) , Lecturer. Lecture notes available at: https://roinaveiro.github.io/files/apres.pdf	Complutense University
Spring 2019	Machine Learning with R: A Course Tailored for Researchers at the Instituto Nacional de Estadística (National Statistical Institute) (15h) , Lecture notes at: https://github.com/roinaveiro/curso-ml-R	INE, Madrid, Spain
Spring 2018	XII Modeling Week for Master's Students in the Mathematical Engineering Program (30h) , Teaching assistant	Complutense University

Thesis Supervised

PHD THESIS SUPERVISED

2021-	José Manuel Camacho , PhD Student	ICMAT-CSIC, Madrid, Spain
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MASTERS AND UNDERGRADUATE THESIS SUPERVISED

2023-2024	Matthieu Carreau , Master 2 Mathématiques Vision Apprentissage, Mathématiques appliquées Master 2 Mathématiques Vision Apprentissage, Mathématiques appliquées. Thesis title: Poisoning Bayesian Inference via Data Deletion and Replication.	École Normale Supérieure, Paris-Saclay
2021-2022	Eduardo Arrabal López , Undergraduate student on Mathematics. Thesis title: Models for conflict management in heterogeneous traffic situations.	Complutense University
2020-2021	Montserrat Muñoz , MSc on Statistical and Computational Treatment of Information. Thesis title: Latent Dirichlet Allocation Models to characterize users in social networks.	Complutense University

Dissemination Activities

Talk entitled: “Traversing the chemical space: statistics and machine learning applied to molecular desing (2023). Invited by the *Facultad de Estadística of Universidad Complutense de Madrid*.

Podcast on Risk Analysis with the Spanish National Research Council (2022). Available at: www.ivoox.com/en/analisis-riesgos-roi-naveiro-audios-mp3_rf_99841809_1.html

Mathematics and Automated Driving Systems (2023). Ríos Insua, D., & **Naveiro, R.** Journal of the Spanish Royal Academy of Sciences (RACSAM). RACSG.2023;112(01):67-79.

Inteligencia Artificial ¿Rompiendo Barreras! (2022). Invited speaker in a session organized by the *Ciencia con Tres Encantos* association.

Artificial Intelligence in Finance (2022). Invited speaker in a roundtable discussion organized by *Banco de España*.

Presentation of the book: ¿Qué sabemos de Análisis de Riesgos?. (2022). Madrid Book Fair.

Coches autónomos, ética y matemáticas (2021). Talk given in the Spanish Royal Academy of Sciences.

Las matemáticas de las máquinas morales (2021). Ríos Insua, D., & **Naveiro, R.**. Article in *Café y Teoremas* section of *El País* (Spanish main newspaper). www.elpais.com/ciencia/cafe-y-teoremas/2021-11-26/las-matematicas-de-las-maquinas-morales.html

Que no te den gato por liebre... ¿o sí? (2019). Gallego, V., Gordo, D. & **Naveiro, R.**. Article in *Café y Teoremas* section of *El País* (Spanish main newspaper). www.elpais.com/elpais/2019/05/29/ciencia/1559146396_616900.html

¿Cómo se ha convertido Matemáticas en la carrera universitaria más popular? (2018). Capel, A., Ocariz, J., **Naveiro, R.**, Contreras, P. Article in *Café y Teoremas* section of *El País* (Spanish main newspaper). https://elpais.com/elpais/2018/06/25/ciencia/1529923839_750611.html?rel=mas

Outreach & Professional Development

ORGANIZED CONFERENCES

November 3rd 2021 – November 5th 2021. PhD Day organizer at the 7th International Conference on Algorithmic Decision Theory. University of Toulouse 1 Capitole. <https://www.irit.fr/ADT2021/>. Toulouse, France.

June 12th 2019 – June 14th 2019. 11th Workshop on Bayesian Inference in Stochastic Processes. Royal Academy of Sciences, Madrid, Spain.

May 20th 2019 – May 24th 2019. 2nd BYMAT Conference. Institute of Mathematical Sciences ICMAT-CSIC. *BYMAT Network and BBVA Foundation*. <https://www.icmat.es/congresos/2019/BYMAT/>. Madrid, Spain.

May 7th 2018 – May 9th 2018. Co-Founder of 1st BYMAT Conference: Bringing Young Mathematicians Together. ICMAT-CSIC. *BYMAT Network and BBVA Foundation*. Madrid, Spain. <https://www.icmat.es/congresos/2018/BYMAT/>

June 7th 2017 – June 9th 2017. 5th symposium on Games and Decisions in Reliability and Risk. Royal Academy of Sciences. Madrid. Spain.

STUDY GROUPS WITH INDUSTRY

May 15th 2017 – May 19th 2017. European Study Group with Industry: *ESGI 131*. Challenge: *Big Data in Sports: Predictive Models for Basketball Player's Performance*. Basque Centre for Applied Mathematics (BCAM) and Math-In. Bilbao, Spain.

Technical skills

Programming languages: Python, R and Bash.

Machine Learning frameworks: PyTorch, PyTorch Geometric, GPyTorch, TensorFlow, GPFlow, Graph Nets.

Probabilistic Machine Learning frameworks: Pyro, NumPyro, Stan.

Scripting and markup languages: R Markdown, Quarto, LaTeX and Microsoft Office.

Operating systems: Advanced experience with most flavours of Linux and MacOS.

Databases: MongoDB.