

# Lasai Barreñada

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## EMPLOYMENT

### Julius center - UMC Utrecht

Visiting PhD Researcher (Utrecht) 10/2024-02/2025

### KU Leuven

PhD Researcher in clinical prediction models (Leuven) 10/2022-

### Basque Center for Applied Mathematics (BCAM)

Research Technician in Machine Learning (Bilbao) 12/2021-09/2022

### Spanish National Statistical Office (INE Spain)

Postgraduate Internship (Madrid) 10/2020-09/2021

### Publicis Media

Data Science Internship (Madrid) 10/2019-05/2020

## EDUCATION

**KU Leuven**, PhD in Biomedical Sciences 2022-2026 (expected)

**Complutense University of Madrid (UCM)**, European Master in Official Statistics (EMOS) 2019-2021

**University of Angers**, B.A. Marketing (Erasmus Programme) 2017-2018

**University of Granada**, B.A. Marketing 2015-2019

## PUBLICATIONS

Barreñada, L., Dhiman, P., Timmerman, D., Boulesteix, A.-L., & Van Calster, B. (2024). Understanding overfitting in random forest for probability estimation: A visualization and simulation study. *Diagnostic and Prognostic Research*, 8(1), 14. <https://doi.org/10.1186/s41512-024-00177-1>

Barreñada, L., Ledger, A., Dhiman, P., Collins, G., Wynants, L., Verbakel, J. Y., Timmerman, D., Valentin, L., & Van Calster, B. (2024). ADNEX risk prediction model for diagnosis of ovarian cancer: Systematic review and meta-analysis of external validation studies. *Bmjmed*, 3(1), e000817. <https://doi.org/10.1136/bmjmed-2023-000817>

Barreñada, L., Gálvez Sainz de Cueto, J. C., & Fernández Calatrava, J. (2022). Timeliness reduction on industrial turnover index based on machine learning algorithms. *Statistical Journal of the IAOS*, 38(4), 1195–1205. <https://doi.org/10.3233/SJI-220086>

## TECHNICAL REPORTS & PREPRINTS

- Barreñada, L., Dhiman, P., Timmerman, D., Boulesteix, A.-L., & Van Calster, B. (2024). *Understanding random forests and overfitting: A visualization and simulation study* (arXiv:2402.18612). arXiv. <https://doi.org/10.48550/arXiv.2402.18612>
- Martínez-García, M., García-Gutierrez, S., Barreñada Taleb, L., Armañanzas, R., Inza, I., & Lozano, J. A. (2023). *Clinical severity prediction of COVID-19 admitted patients in Spain: SEMI and REDISSEC cohorts* [Preprint]. Health Informatics. <https://doi.org/10.1101/2023.02.08.23285589>
- Barreñada, L. (2021). *Imputación de datos mediante random forest* [Master thesis]. <https://hdl.handle.net/20.500.14352/5138>

## CONFERENCE PRESENTATIONS

- Head-to-head comparisons of RMI and ADNEX models (Presentation)**, ISUOG, Budapest 09/2024
- Multicenter flexible calibration curves using random effects (Poster)**, ISCB, Thessaloniki 07/2024
- Drawing multicenter calibration curves (Presentation)**, Sociedad Española de Bioestadística (SEB) 02/2024
- ADNEX model systematic review and meta-analysis (Presentation)**, ISUOG, Seoul 10/2023
- Do we understand random forests? (Poster)**, ISCB, Milan 08/2023
- Do we understand random forests? (Poster)**, Young Statisticians Meeting (YSM), Leicester 07/2023

## AWARDS

- Young Investigator Award in Gynaecology**, issued by ISUOG 2023
- Young Statisticians Prize (YSP)**, 2<sup>nd</sup>, issued by IAOS 2022

## SKILLS

Clinical Prediction Models  
Machine Learning  
Statistical Analysis  
Data Science  
Biomedical Research  
Programming: **R, Python**

## PROFESSIONAL MEMBERSHIPS

International Society of Ultrasound in Obstetrics and Gynecology (ISUOG)  
International Ovarian Tumour Analysis group (IOTA)  
International Biometric Society (IBS)  
International Society For Clinical Biostatistics (ISCB)

## LANGUAGES

**Spanish:** Native

**Basque:** Native

**English:** Full Working Proficiency

**French:** Full Working Proficiency