

Lasai Barreñada

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PROFESSIONAL EXPERIENCE

KU Leuven

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

Memorial Sloan Kettering Cancer Center

Visiting PhD Researcher (New York) 02/2025-06/2025

Julius center - UMC Utrecht

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

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

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 Granada, B.A. Marketing 2015-2019

PUBLICATIONS

1. Zegarra, R. R. *et al.* [Standardization of the sonographic measurement of the head to perineum distance: A pilot study comparing techniques with and without perineal compression.](#) *European Journal of Obstetrics and Gynecology and Reproductive Biology* **312**, (2025).
2. Geysels, A. *et al.* Artificial intelligence applied to ultrasound diagnosis of pelvic gynecological tumors: A systematic review and meta-analysis. *Gynecologic and Obstetric Investigation* (2025) doi:[10.1159/000545850](#).
3. Barreñada, L., Campo, B. D. C., Wynants, L. & Calster, B. V. Clustered flexible calibration plots for binary outcomes using random effects modeling. (2025) doi:[10.48550/arXiv.2503.08389](#).
4. Martínez-García, M., García-Gutierrez, S., Barreñada, L., Inza, I. & Lozano, J. A. [Extending the learning using privileged information paradigm to logistic regression.](#) *Neurocomputing* **615**, 128869 (2025).
5. Moro, F. *et al.* External validation of ultrasound-based models for discrimination between benign and malignant adnexal masses in Italy: The prospective multicenter IOTA phase 6 study. (2024) doi:[10.1101/2024.12.23.24319517](#).
6. Van Calster, B. *et al.* Performance evaluation of predictive AI models to support medical decisions: Overview and guidance. (2024) doi:[10.48550/arXiv.2412.10288](#).
7. Barreñada, L. *et al.* Head-to-head comparison of the RMI and ADNEX models to estimate the risk of ovarian malignancy: Systematic review and meta-analysis of external validation studies. (2024) doi:[10.1101/2024.11.29.24318146](#).
8. Barreñada, L., Dhiman, P., Timmerman, D., Boulesteix, A.-L. & Van Calster, B. [Understanding overfitting in random forest for probability estimation: A visualization and simulation study.](#) *Diagnostic and Prognostic Research* **8**, 14 (2024).
9. Barreñada, L. *et al.* [ADNEX risk prediction model for diagnosis of ovarian cancer: Systematic review and meta-analysis of external validation studies.](#) *bmjmed* **3**, e000817 (2024).

10. Martínez-García, M. *et al.* *Clinical Severity Prediction of COVID-19 Admitted Patients in Spain: SEMI and REDISSEC Cohorts.* <http://medrxiv.org/lookup/doi/10.1101/2023.02.08.23285589> (2023) doi:10.1101/2023.02.08.23285589.
11. Barreñada, L., Gálvez Sainz de Cueto, J. C. & Fernández Calatrava, J. *Timeliness reduction on industrial turnover index based on machine learning algorithms.* *Statistical Journal of the LAOS* **38**, 1195–1205 (2022).

PEER REVIEW

Conducted various peer reviews for **Statistics in Medicine**, **Ultrasound in Obstetrics and Gynecology**, **International Journal of Gynecological Cancer**, **Heliyon**, **npj precision oncology** and **Nature Communications medicine**

CONFERENCE PRESENTATIONS

Combining calibration plots (Talk) , MEMTAB, Birmingham	04/2025
Problem of Individual Risk Estimation for Health AI (Talk) , ENAR, New Orleans	03/2025
Head-to-head comparisons of RMI and ADNEX models (Talk) , ISUOG, Budapest	09/2024
Multicenter flexible calibration curves using random effects (Poster) , ISCB, Thessaloniki	07/2024
Drawing multicenter calibration curves (Talk) , SEB, Barcelona	02/2024
ADNEX model systematic review and meta-analysis (Talk) , ISUOG, Seoul	10/2023
Do we understand random forests? (Poster) , ISCB, Milan	08/2023
Do we understand random forests? (Poster) , YSM, Leicester	07/2023

AWARDS & PRIZES

Young Investigator Award in Gynaecology , issued by ISUOG	2023
Young Statisticians Prize (YSP) , 2 nd , 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