# Seminario de Doctorado IUMA

# Conferencia

por

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Título:

## *Challenges in disease mapping: predicting cancer incidence and analyzing models' smoothing*

*Resumen:*

Disease mapping refers to the collection of statistical and epidemiological tools to investigate how diseases are distributed geographically (spatial analysis) and how these patterns change over time (spatio-temporal analysis). The applications of disease mapping are diverse. It can be used to identify geographic patterns of a disease, track its spread over time, and even generate new hypotheses about the causes (aetiology) of the disease. In this talk, we focus on cancer, a significant public health issue that affects millions globally. According to GLOBOCAN 2022, an estimated 20 million new cancer cases and nearly 10 million cancer-related deaths occurred in 2022.

Cancer incidence and mortality are the most fundamental measures to cancer control. They play an important role in describing the cancer impact in different populations, helping governments, policy makers, health professionals, and researchers to formulate cost-effective prevention, diagnosis and treatment strategies. However, the analysis of cancer data presents several challenges. On one hand, the lack of cancer incidence registries in certain geographical areas makes the spatial or temporal analysis of cancer incidence patterns difficult. On the other hand, some cancer types, such as rare cancers, remain understudied due to the limited availability of comprehensive data.

This talk will explore methodological advancements designed to overcome these challenges. By addressing issues in cancer incidence data and enhancing the study of rare cancers, our work aims to contribute to more accurate disease mapping and improved public health outcomes.

Fecha: Jueves, 23 de enero de 2025.
Hora: 17:00 horas.
Lugar: Seminario Rubio de Francia. Primera planta, Edificio B, Facultad de Ciencias.