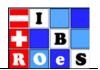
#### Wiener Biometrische Sektion der Internationalen Biometrischen Gesellschaft Region Österreich – Schweiz



## Please join the Biometric Colloquium

# **LAURE WYNANTS**

Department of Epidemiology, Care and Public Health Research Institute, Maastricht University, The Netherlands & Leuven Unit for Health Technology Assessment, KU Leuven, Belgium

# PREDICTION MODELS IN HEALTHCARE: QUANTIFYING RISKS OF UNCERTAINTY USING VALUE-OF-INFORMATION MEASURES

## October 1st, 2025 at 10:00 pm

Seminarraum Center for Medical Data Science (previously CeMSIIS), Spitalgasse 23, Room 88.03.513 Medical University of Vienna, 1090 Wien **Host**: Georg Heinze

### **Abstract:**

Prediction models (statistical or AI models) can support diagnosis and prognosis, thereby optimizing patient care. Whether this succeeds depends on the reliability of the model. Often, models are tested on small datasets, and it turns out that they are not equally suitable for all locations and populations. Uncertainty can be quantified using value-of-information (VOI) measures. These reflect the risks of uncertainty, expressed as the expected number of incorrect diagnoses. With this information, clinicians and policymakers can decide for each model: is it ready for use, or is further research needed? In this presentation, Laure Wynants introduces the concept of VOI for prediction model validation, the current state of the art, and ongoing research of her team.