

Capita Selecta Lecture – Machine Learning in Epidemiology

Date: March 15, 2024

Speaker: Dr. Sarah van der Berg

Department: Clinical Epidemiology

This lecture explores the application of machine learning methods in epidemiological research. We discuss supervised learning approaches for predicting patient outcomes, including logistic regression, random forests, and neural networks.

Key topics:

- Feature selection in high-dimensional data
- Handling missing data in clinical datasets
- Model validation and cross-validation strategies
- Interpretability of ML models in healthcare

Examples from recent studies on cardiovascular disease prediction and cancer survival analysis.