

**Speaker:** Helen Ogden (University of Southampton)

**Date:** 15/02/2022 at 13:15 in 8 West 2.10

**Title:** Flexible models for clustered data

**Abstract:**

A wide variety of approaches are available for modelling clustered data: from assuming a single shared model for all clusters to fitting entirely separate models for each cluster. Random effects models lie between these two extremes, allowing simple variation in the model for each cluster, such as shifting a global response curve up or down by a constant (random intercept) or straight line (random slope). When the global response curve is not a straight line, these simple models sometimes fail to capture the variation in the shape of the cluster-specific response curves. I will give an example of this problem, and describe an extension to the simple random effects model which is designed to capture other types of variation.