Bayesian modelling for misaligned spatio-temporal data

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Research Group: Statistics and Data Science

Project description:

This project will focus on Bayesian spatial modelling techniques to examine the association between measures of population health (such as hospitalisations and mortality), socio-economic factors and pollution. This will be accomplished by developing spatial and spatio-temporal models which can allow for spatially varying coefficients, spatially adaptive priors, and spatial quantile regression.

In particular, the project will focus on methodological advances for misaligned spatio-temporal data, that is, when data is available at different spatial and temporal resolutions. Pollution is often collected at monitoring station, giving rise to a point process; health data is usually available at small area level. The project will leverage recent work by Dr Liverani on misaligned spatial areal data.

Further information:

How to apply

Entry requirements

Fees and funding