PRACTICAL SPATIAL MODELLING WITH INLABRU

NCSE meeting 2025, St Andrews

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1 Welcome to the course!

- Welcome to the `inlabru` workshop!
- The goal of this workshop is to introduce new users to the `inlabru` software for Bayesian spatial modelling using integrated nested Laplace approximation (INLA).

> ❗ important
>
> Please use the instructions provided here to install and check your installation *before* the course starts.

2 Learning Objectives for the workshop

By the end of the workshop, participants will have an understanding of:

- The `inlabru` workflow and software principles.
- The motivation for and the challenges of analysing and modelling spatial data.
- Different types of statistical models used to analyse different spatial data structures.
- The implementation of these models in the `inlabru` package

3 Intended audience

The workshop aims to cater for participants with a range of different backgrounds, who are interested in analysing data with modern spatial statistical modelling approaches using flexible and computationally efficient software.

4 Prerequisites

Participants should be familiar with the R environment, and general statistical approaches to statistical modelling, such as regression, analysis of (co)variance, and generalized linear models.

No knowledge of `R-INLA` or `inlabru` is required.

5 Schedule Program

Time	Topic
10:00 - 11:00	**Session 1**: Introduction to `inlabru`
11:00 - 12:00	Practical Session 1
12:00 - 13:00	Lunch
13:00 - 14:15	**Session 2**: Spatial Modelling with `inlabru`
14:15 - 15:30	Practical Session 2
15:30 - 15:45	Wrap-up and outlook