

# SPATIAL MODELS FOR WHALE SURVEYS WITH COMPLEX AND NON-SYSTEMATIC DESIGNS

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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 the integrated nested Laplace approximation (INLA).
- The workshop is intended for applied statisticians and quantitative ecologists who are interested in efficiently modelling spatial data- No prior knowledge of R-INLA is required.

## 2 In preparation for the workshop

Participants are required to follow the next steps before the day of the workshop:

1. Install **R-INLA**
2. Install `inlabru` (available from CRAN)

```
# Enable universe(s) by inlabru-org
options(repos = c(
  inlabruorg = "https://inlabru-org.r-universe.dev",
  INLA = "https://inla.r-inla-download.org/R/testing",
  CRAN = "https://cloud.r-project.org"
))

# Install some packages
install.packages("inlabru")
```

3. Make sure you have the latest R-INLA, `inlabru` and R versions installed.
4. Install the following libraries:

```
install.packages(c(
  "dplyr",
  "ggplot2",
  "gt",
  "mapview",
  "patchwork",
  "scico",
  "sf",
  "tidyterra"
))
```