INLABRU WORKSHOP



ICES 2025, Copenhagen
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1 Welcome to the course!

- Welcome to the inlabru workshop!
- The goal for the workshop is to ...
- The workshop is intended for ... No knowledge of R-INLA is required.
- Workshop materials in the github repository inlabru-workshop

2 Learning Objectives for the workshop

At the end of the workshop, participants will be able to:

- ILO1
- ILO2
- ILO3

Intended audience and level: The tutorial is intended for \dots No knowledge of R-INLA is required.

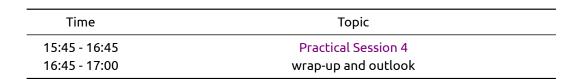
3 Schedule Program

3.0.1 Day 1

Time	Topic		
10:00 - 10:30	ICES informative session		
10:30 - 11:30	Session 1: Introduction to inlabru		
11:30 - 13:00	Practical Session 1		
13:00 - 14:30	Lunch break □		
14:30 - 15:30	Session 2: Latent Gaussian Models and INLA		
15:30 - 15:45	Coffee Break 🛚		
15:45 - 16:45	Practical Session 2		
16:45 - 17:00	wrap-up and outlook		

3.0.2 Day 2

Time	Topic	
9:00 - 10:00	Session 3: Temporal modelling and smoothing part 1	
10:00 - 10:30	Snack □	
10:30 - 11:30	Session 4: Temporal modelling and smoothing part 2	
11:30 - 13:00	Practical Session 3	
13:00 - 14:30	Lunch break \square	
14:30 - 15:30	Session 5: Introduction to Spatial Statistics	
15:35 - 15:45	Coffee Break □	



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3.0.3 Day 3

Time	Торіс		
9:00 - 10:00	Session 6: Areal Processes		
10:00 - 10:30	Snack □		
10:30 - 11:30	Session 7: Geostatistics		
11:30 - 13:00	Practical Session 5		
13:00 - 14:30	Lunch break □		
14:30 - 15:30	Session 8: Spatial Point processes		
15:35 - 15:45	Coffee Break \square		
15:45 - 16:45	Practical Session 5 continued		
16:45 - 17:00	wrap-up and outlook		

3.0.4 Day 4

Time	Topic		
9:00 - 10:00	Session 9: Spatiotemporal models		
10:00 - 10:30	Snack □		
10:30 - 11:30	Session 10: Model comparison and evaluation		
11:30 - 13:00	Practical Session 6		
13:00 - 14:30	Lunch break \square		
14:30 - 15:30	Session 11: Multilikelihoods/joint likelihood		
15:35 - 15:45	Coffee Break □		
15:45 - 16:45	Practical Session 7		
16:45 - 17:00	wrap-up and outlook		

3.0.5 Day 5

Time		Торіс
9:00 - 1	0:00	Session 12: Zero inflated models
10:00 - 1	10:30	Snack □
10:30 - 1	l1:30	Session 13: Complex observational
		processes: Distance Sampling
11:30 - 1	13:00	Practical Session 8
13:00 - 1	I3:15	Coffee Break □
13:15 - 1	14:00	Closing session

4 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(
  "CARBayesdata",
  "DAAG",
  "dplyr",
  "FSAdata",
  "ggplot2",
  "gstat",
  "gt",
  "lubridate",
  "mapview",
  "patchwork",
  "scico",
  "sdmTMB",
  "sf",
  "spatstat",
  "spdep",
  "terra",
  "tidyr",
  "tidyterra",
  "tidyverse",
  "variosig"
))
```