

# **INTRODUCTORY STATISTICS WITH R FOR BIOLOGICAL SCIENCES**

## **COURSE PROGRAMME**

**CIIMAR - 16 hours; 11-14 November 2024**

Session 1. 10:00 – 14:00 h (break from 11:45 to 12:15h)

- 1.1 Descriptive statistics
- 1.2 Probability distributions
- 1.3 Data exploration
- 1.4 Exercises

Session 2. 10:00 – 14:00 h (break from 11:45 to 12:15h)

- 2.1 Contrast of hypothesis: parametric and non-parametric methods
- 2.2 Goodness of fit contrasts
- 2.3 Homogeneity contrasts
- 2.4 Exercises

Session 3. 10:00 – 14:00 h (break from 11:45 to 12:15h)

- 3.1 Linear regression
- 3.2 Non-linear regression
- 3.3 Non-parametric regression
- 3.4 Exercises

Session 4. 10:00 – 14:00 h (break from 11:45 to 12:15h)

- 4.1 Analysis of variance: foundations
- 4.2 Analysis of variance: worked example
- 4.3 Analysis of variance: repeated-measures and nested designs
- 4.4 Exercises