

# Statistical Modelling Course for Forest Sciences

Solsona, 30 June–3 July 2015

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$$\frac{d}{dx} \frac{1}{\sqrt{x}} = \frac{1}{\sqrt{x}} \frac{dx}{dx} = -\frac{1}{2\sqrt{x}}$$
$$\frac{d}{dx} \cos^{-1} x = -\frac{1}{\sqrt{1-x^2}}$$



## STATISTICAL MODELLING COURSE FOR FOREST SCIENCES

### Target Audience

Academic and governmental researchers, graduate students in forest sciences

### Course prerequisites

The workshop will heavily use the R statistical language and environment to illustrate various methods. This is not an R introductory workshop: participants should have a working knowledge of R to import their own data and run classic models such as ANOVA and multiple regression. Participants can bring their own laptop. Some statistical consulting time will be reserved for participants wishing to bring their own data during the workshop.

Organized and financed by:



### Teacher

Dr. Marc J. Mazerolle, biostatistician. Center for Forest Research, Université du Québec en Abitibi-Témiscamingue, Canada

### Program

Each day will feature presentation of the material in the morning and early afternoon. The approaches will be illustrated with different data sets drawn from the forest sciences. Participants will have time to work on hands-on exercises in the afternoon.

- **Day 1:** Generalized linear models (Poisson regression, logistic regression for binary data, and extensions for multinomial and ordinal data)
- **Day 2:** Model selection and multimodel inference (model selection, model averaging predictions, effect sizes)
- **Day 3:** Linear mixed models and generalized linear mixed models (models for hierarchical data, repeated measures in time or space)
- **Day 4:** Introduction to Bayesian analysis (MCMC, classic models, hierarchical models)

**Duration:** 25 hours

**Dates:** 30 June 2015 – 3 July 2015

**Maximum number of participants:** 25

**Venue:** Centre Tecnològic i Forestal de Catalunya. Edificio del Seminario. Pujada del Seminari s/n • 25280 • SOLSONA (Catalunya, Spain) Tel. (+34) 973 48 16 44

**Dates for registration:** **NEW DATES:** 1 May 2015 – 26 June 2015

**Language of the course:** English

**Cost:** 125 Euros

**Inscription:** [www.newforests.cat/curs\\_estadistica](http://www.newforests.cat/curs_estadistica)

**Contact:** andrea.duane@ctfc.es