

Generalised Additive Models for Location Scale and Shape

Prof. Mikis Stasinopoulos (London Metropolitan University, UK)
7-11 October 2019 (5 sessions) | 09:00 - 11:00 (a total of 10 hours)

PROGRAMME:

1. Introduction to GAMLSS, the gamlss packages, algorithms and diagnostics, and practicals with R
2. Continuous distributions, discrete distributions and mixed distributions
3. Additive terms, model selection and centile Estimation
4. Case studies

PREREQUISITES: Basic knowledge of Statistics, statistical inference and regression techniques, and basic knowledge of R programming language. Master, PhD students and researchers are encouraged to participate.

REFERENCES:

- Rigby RA, Stasinopoulos D (2005). "Generalized Additive Models for Location, Scale and Shape." *Applied Statistics*, 54, 507–554.
- Rigby RA, Stasinopoulos DM (2006). "Using the Box-Cox t Distribution in GAMLSS to Model Skewness and Kurtosis." *Statistical Modelling*, 6, 209–229.
- Rigby RA, Stasinopoulos D (2004). "Smooth Centile Curves for Skew and Kurtotic data Modelled Using the Box-Cox Power Exponential Distribution". *Statistics in Medicine*, 23 (19): 3053–3076. doi:10.1002/sim.1861.
- Stasinopoulos D., Rigby, RA (2007). "Generalized additive models for location scale and shape (GAMLSS) in R". *Journal of Statistical Software*, 23 (7). doi:10.18637/jss.v023.i07.
- Stasinopoulos D, Rigby RA, Heller GZ, Voudouris V, De Bastiani F (2017). "Flexible Regression and Smoothing: Using GAMLSS in R", 1st Edition. Chapman and Hall/CRC. ISBN 9781138197909. A preprint old draft version.
- WHO Multicentre Growth Reference Study Group (2006). "WHO Child Growth Standards: Methods and Development". World Health Organization, Geneva, Switzerland.

***Registration is free, but mandatory before 3rd October.** To sign-up go to <https://forms.gle/XwbZiL6g2tPLtCoc6> and fill the registration form. Student grants are available. If you need support for travel and accommodation expenses, please, let us know in the form **before September 8th**.