

REGISTRATION FORM

PERSONAL DATA

LAST NAME _____

FIRST NAME _____

PLACE AND DATE OF BIRTH _____

MAILING ADDRESS (street, city, province) _____

COUNTRY _____ ZIP _____

TELEPHONE _____

FAX _____

EMAIL _____

POSITION _____

ORGANIZATION _____

TIN /Codice Fiscale _____

VAT /P.IVA _____

BILLING DETAILS / DETTAGLI DI FATTURAZIONE

(if different from mailing address and personal data above)

LAST NAME _____

FIRST NAME _____

ADDRESS (street, city, province) _____

COUNTRY _____ ZIP _____

ORGANIZATION _____

TIN /Codice Fiscale _____

VAT /P.IVA _____

With reference to the Decreto Legislativo 196/2003 pertaining the safeguard of personal information. / Acconsento al trattamento di questi dati in base alla normativa sulla tutela della "privacy" (D.Lgs 196/2003).

DATE _____

SIGNATURE _____

REGISTRATION AND FEES

To sign up for the course, please fill out the "REGISTRATION FORM", make a payment and mail it to roberta.vesentini@univr.it

| Course Fees: | Member SISMEC | Non-Member SISMEC |
|----------------------|-----------------------|-------------------------|
| | | Through 23 October 2017 |
| Standard | €220 | €250 |
| Postgraduate/Student | €120 | €150 |
| | After 23 October 2017 | |
| Standard | €270 | €300 |
| Postgraduate/Student | €170 | €200 |

Payment of registration fee should be in Euros by Bank Transfer

Holder: Department of Diagnostics and Public Health | Bank: Banca Popolare di Verona Gruppo Banco BPM | SWIFT/BIC: BAPPIT21001 | IBAN: IT75K050341175000000011070 | Payment Reason: "Flexible regression and smoothing: using gamlss in r" course
VAT is payable for organizations only

The course will take place in:

Strada le Grazie 8, 37134, Verona.
Istituti Biologici, Blocco B, Sezione di Epidemiologia e Statistica Medica, Aula "Roberto de Marco"

Fees are fully inclusive of tuition, coffee breaks and course materials

Scientific Committee:

Prof. Giuseppe Verlato, Verona
Prof. M. Elisabetta Zanolin, Verona
Dr Lucia Cazzoletti, Verona
Dr Liliya Chamitava, Verona

Organizing Committee:

Roberta Vesentini, Verona

Contact us for information.



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University of Verona, Unit of Epidemiology and Medical Statistics



Head: Prof. Giuseppe Verlato

In collaboration with PhD school in Applied Life and Health Sciences, University of Verona

under the patronage of Italian Society of Medical Statistics and Clinical Epidemiology

sismec
Società Italiana di Statistica Medica ed Epidemiologia Clinica



Verona, Italy
23-24 November 2017

two-day course:

**FLEXIBLE REGRESSION
AND SMOOTHING:
Using GAMLSS in R**

Speaker: Mikis Stasinopoulos,
Professor in Statistics,
STORM (Statistics, and Mathematics) Research Centre,
London Metropolitan University,
(one of the creators of GAMLSS)

THE COURSE OVERVIEW

Flexible Regression and Smoothing. The GAMLSS packages in R



GAMLSS are statistical models where the location, scale, skewness and kurtosis parameters for the distribution of the response variable can be modelled explicitly as functions of the explanatory

parametric distribution and where all the parameters of the distribution (not only the mean) can be modelled using linear or smooth functions of the explanatory variables. GAMLSS allows flexibility in univariate statistical modelling far beyond other currently available methods. This short course will be an exposition of the GAMLSS framework using

- A description of different modelling selection techniques and diagnostics for checking the model adequacy.
- Further statistical modelling examples (including centile estimation).

The course is designed for applied statisticians and PhD students in the field of social statistics, biostatistics, medical statistics and other related

In all fields of science and technology the amount of data collected is growing rapidly. Analyzing different data sets can be very challenging. Two important issues often arise in any statistical modelling technique: i) the choice of an appropriate distribution for the response variable and ii) explaining how this distribution (and its parameters) varies over different values of the explanatory variables. The Generalized Additive Models for Location Scale Shape, (GAMLSS), provides a framework where those two problems can be addressed.

GAMLSS is a regression tool box appropriate for medium to large data sets where the distribution of the response variable is allowed to be a very flexible

practical examples throughout. In particular the following topics will be covered:

- An introduction to GAMLSS and its statistical modelling philosophy.
- An introduction to the R implementation of GAMLSS.
- A description of the different distributions which can be used for modelling the response variable, and their properties. This includes: i) continuous (positively or negatively skewed and with high or low kurtosis) ii) discrete (over-dispersed or zero inflated) and iii) mixed distributions.
- The different additive terms for modelling the parameters of the distribution will be explored including: linear, non-parametric smoothing and random effects terms.

fields, where the data requires modelling the response variable using a flexible distribution.

For more information about GAMLSS look at <http://www.gamlss.org>

Participants of the course will have a possibility to buy the first book on "Flexible Regression and Smoothing: Using GAMLSS in R", written by M.D. Stasinopoulos, R. A. Rigby et al, at a discount price.

