Please find below the announcement of the 14th edition of
the ABS (Applied Bayesian Statistics) Summer school on

MODELING SPATIAL AND SPATIO-TEMPORAL DATA
WITH ENVIRONMENTAL APPLICATIONS

with Bruno SANSO', Professor of Statistics,
University of California Santa Cruz, as lecturer.

Like in the past four years, the 2017 school will be held in the magnificent Villa del Grumello, in Como (Italy), on the Lake Como shore.

Raffaele Argiento
ABS17 Executive Director
Guido Consonni and Fabrizio Ruggeri
ABS17 Directors

****

* ABS17 *

****

Applied Bayesian Statistics School

MODELING SPATIAL AND SPATIO-TEMPORAL DATA WITH ENVIRONMENTAL APPLICATIONS

June 19-23, 2017

Villa del Grumello, Como, Italy

Lecturer:

Bruno Sanso', Professor of Statistics, University of California Santa Cruz
https://users.soe.ucsc.edu/~bruno/

The conference webpage is

web.mi.imati.cnr.it/conferences/abs17.html

Registration is now open. Please note that the conference room allows only for a limited number of participants.

The ABS17 Secretariat can be contacted at

abs17@mi.imati.cnr.it

COURSE OUTLINE

This course is intended for students who have a background in statistical
methods and modeling. The course is focused on models for data that are
spatially referenced and that evolve in time. We will develop models for
stochastic processes that are indexed at irregularly scattered, fixed,
locations. We will look into the theoretical properties of those models
as well as into the computational issues involved in the estimation of their
parameters. We will extend the analysis of fields of

spatial observations
that are collected in time. In particular, we will consider dynamically
varying process where space and time interact. Real-data applications of
Bayesian methods with MCMC techniques will be illustrated.

Day 1: Introduction to Bayesian methods and hierarchical models. Examples
of spatially referenced data. Basic properties of Gaussian random fields.
Graphical exploration of spatial fields.

Day 2: Variograms. Examples of families of correlations functions. Bayesian
approach to estimation and prediction of spatial random fields.

Day 3: The big data problem: reduced rank models and other modern approaches to dimension reduction.

Day 4: Spatio-temporal models. Dynamic linear models: integro-differential

equations.

Day 5: Extensions

PRACTICAL INFORMATION

The school will replicate the successful format of the previous years, and
will feature lectures and practical sessions (run by a junior researcher),
as well as participants' talks. It will start on Monday after lunch and end
on Friday before lunch; Wednesday afternoon is free. Accommodation is
available either at the Villa guesthouse or in downtown hotels (info will
appear soon on the website). Como can be easily reached by train from Milan
and its airports. More details are available on the website.

--

Dr. Raffaele Argiento

University of Torino and Collegio Carlo Alberto
www.raffaeleargiento.it