

International Workshop on “Statistical inference for assessing and monitoring natural resources”

November 10-11, 2016
Room F. Romani,
Department of Economics and Statistics
P.za S. Francesco 8, Siena, Italy

Program

November 10, 2016

9.30 Opening

L Fattorini, Scientific Committee
F Frati, Chancellor University of Siena
M Vasta, Head Department of Economics and
Statistics

10.00 Invited talk

Chair: L Barabesi, University of Siena

P Dutilleul, McGill University, Montréal, Canada.
[Estimation and testing procedures in
Co-Regionalization Analysis with a Drift \(CRAD\):
a timely summary, with applications using vegetation,
terrestrial and atmospheric data](#)

11.00 Coffee Break

11.30 Spatial modeling for ecological processes

Chair: A Pollice, University of Bari, Italy

L Altieri, L Greco, University of Bologna, Italy.
[Using Bayesian P-splines for modelling spatial point
processes data](#)

M Brabec, The Czech Academy of Sciences, Praha,
Czech Republic. [Semiparametric statistical modeling
for analysis of ecological processes](#)

F Greco, M Ventrucci, University of Bologna, Italy.
[Efficient smoothing for spatial data collected over
the globe](#)

P Postiglione, R Benedetti, A Cartone, University
“G. d'Annunzio” of Chieti-Pescara, Italy. [Identifying
spatial regimes in environmental and ecological
models](#)

13.00 Lunch

14.00 Model-based inference on natural phenomena and resources I

Chair: D Cocchi, University of Bologna, Italy

D Ambach, W Schmid, European University
Viadrina, Frankfurt, Germany. [Forecasting wind
speed, wind direction and air pressure](#)

B Cafarelli, C Calculli, University of Foggia, Italy,
D Cocchi, University of Bologna, Italy. [Corals
growth parameter estimation via hierarchical non-
linear mixed-effects models](#)

A Farcomeni, La Sapienza University of Rome, Italy.
[Chao and Zelterman estimators with observed
heterogeneity, with application to a whale shark
population](#)

G Jona Lasinio, La Sapienza University of Rome,
Italy, A Pollice, University of Bari “Aldo Moro”,

Italy, R Rossi, Consiglio per la Ricerca in Agricoltura
e l'Analisi dell'Economia Agraria, M Amato,
University of Basilicata, Italy, T Kneib, Georg-August-
Universität, Göttingen, Germany. [Semiparametric
regression with errors in covariates for the analysis
of sensor data on soil-plant variability](#)
V Chiarello, E Caporali, A Petrucci, University of
Florence, Italy. [Extreme rainfall events analysis for
understanding hydrologic change](#)
F Ndongo, A Fassò, F Finazzi. University of Bergamo,
Italy. [Spatio-temporal geostatistics of functional data:
some preliminary results in analysis of temperature
vertical profile](#)

16.00 Coffee Break

16.30 Model-based inference on natural phenomena and resources II

Chair: G Jona Lasinio, La Sapienza University of
Rome

R Borgoni, A Carcagnì, University of Milano-
Bicocca, Italy, N Salvati, University of Pisa, Italy.
[Semiparametric M-quantile random effect model for
indoor radon concentration](#)

D De Angelis, S Mancinelli, P Ciucci, La Sapienza
University of Rome, Italy. [Estimating animal home
ranges and core areas using Brownian Bridge
movement models: the effect of filtering low quality
location data](#)

V La Morgia, Italian National Institute for
Environmental Protection and Research (ISPRA),
Bologna, Italy, S Focardi, National Research Council
(ISC-CNR), Firenze, Italy. [Covariances between
environment and animals: disentangling the effects of
observation and process in spatially explicit studies](#)

November 11, 2016

9.00 Ecological quantities and indicators

Chair: P Dutilleul, McGill University, Montréal, Canada.

L Altieri, D Cocchi, G Roli, University of Bologna, Italy. [The use of spatial information in entropy measures](#)

C Coron, Université Paris Sud, Orsay, France.

[Citizen sciences and biodiversity monitoring](#)

M Marchi, G Bertini, G Fabbio, Forestry Research Centre (CREA-SEL), Arezzo, Italy, C Ferrara, S Fares, L Salvati, Research Centre of Plant-Soil Interactions (CREA-RPS), Rome, Italy. [How to reduce survey costs in evaluating the growing trends in ICP forest plots](#)

L Parlagraeco, S Devoti, L Liberti, Italian National Institute for Environmental Protection and Research (ISPRA), Rome, Italy, G Aretusi, Area Marina Protetta Torre del Cerrano, Italy, L Fontanella, L Ippoliti, P Valentini, University “G. d'Annunzio” of Chieti-Pescara, Italy. [Observations of storms flooding along a natural sandy beach](#)

L Secondi, T Laureti, A Tomao, LD Mancini, D Giularelli, University of Tuscia, Viterbo, Italy, P Corona, Forestry Research Centre (CREA-SEL), Arezzo, Italy. [Urban development and wildfires: A panel data analysis on Italian provinces](#)

D Rocchini, Fondazione Edmund Mach, S. Michele all'Adige, Italy, M Marcantonio, Technische Universität at Berlin, Germany, C Ricotta, La Sapienza University of Rome, Italy. [Sensing the difference: measuring Rao's Q diversity from satellite images in an open source space](#)

11.00 Coffee break

11.30 Environmental surveys: theoretical and practical issues

Chair: P Corona, Forestry Research Centre (CREA-SEL), Arezzo, Italy

G Chirici, F Botalico, F Giannetti, D Travaglini, University of Florence, Italy, P Corona, Forestry Research Centre (CREA-SEL), Arezzo, Italy.

[A two-stage sampling strategy for assessing forest windthrow damages exploiting post-event Airborne Laser Scanning](#)

M Ferretti, TerraData environmetrics, Monterotondo M.mo, Italy, G Bacaro, University of Trieste, Italy, F Cristofolini, A Cristofori, E Gottardini, Fondazione Edmund Mach, S. Michele all'Adige, Italy, S Maccherini, University of Siena, Italy. [Source of variability in Chlorophyll a fluorescence in Norway spruce \(Picea abies \(L.\) H. Karst\) trees - consequences for sampling](#)

M Marchetti, L Sallustio, B Lasserre, University of Molise, Italy, P Corona, Forestry Research Centre (CREA-SEL), Arezzo, Italy, MC Pagliarella, University of Perugia, Italy, M Munafò, Italian National Institute for Environmental Protection and Research (ISPRA), Rome, Italy. [Recent experiences using the Italian Land Use Inventory to assess land use changes in Italy](#)

MC Pagliarella, University of Perugia, Italy. [Spatially-balanced sampling vs unbalanced sampling for assessing forest change: evidence in favor of spatial balance](#)

M Zaccaroni, F Dell'Agnello, G Ponti, University of Florence, Italy, F Riga, Italian National Institute for Environmental Protection and Research (ISPRA), Rome, Italy. [Is vantage point count a reliable method for monitoring roe deer populations?](#)

N Puletti, P Corona, Forestry Research Centre

(CREA-SEL), Arezzo, Italy, M Marcheselli, C Pisani, University of Siena, Italy. [A two-phase sampling strategy for estimating tree species diversity from large scale forest inventories](#)

13.30 Lunch

14.30 Environmental sampling schemes and strategies

Chair: T Di Battista, University “G. d'Annunzio” of Chieti-Pescara, Italy

F Andreis, M Bonetti, University L. Bocconi, Milano, Italy. [Adaptive spatial identification and oversampling of sites responding to prescribed profiles using administrative data](#)

R Benedetti, University “G. d'Annunzio” of Chieti-Pescara, Italy, RL Chambers, University of Wollongong, Australia, F Piersimoni, Istat, Rome, Italy. [Spatially balanced sampling of transects](#)
MM Dickson, D Giuliani, G Espa, University of Trento, Italy. [Sample-based spatial statistics: reconciling two literatures](#)

SA Gattone, P Giordani, T Di Battista, F Fortuna, University “G. d'Annunzio” of Chieti-Pescara, Italy. [Sampling an epiphytic lichen community with an adaptive sampling design](#)

A Vagheggini, D Cocchi, University of Bologna, Italy. [A generalized regression estimator for spatial populations](#)

MM Dickson, E Taufer, M Bee, D Giuliani, G Espa, University of Trento, Italy. [Sampling and modelling spatial data with locational errors](#)

16.30 Coffee break

17.00 Closing