

# *First SIS-Bayes workshop*

## *Roma, 7-8 February 2017*

*Aula 1A, Dipartimento di Scienze Odontostomatologiche e Maxillo Facciali,  
Sapienza Università di Roma, Via Caserta 6.*

## **Final program**

### **Tuesday, February 7**

**8:30 – 9:00 Registration**

**9:00 – 11:00 Tutorial on Bayesian Nonparametrics** (A. Guglielmi, Politecnico di Milano)

**11:00 – 11.30 Coffee Break**

**11:30-13:00 SESSION 1 Bayesian Causal Inference**  
(organizers: Alessandra Mattei, Fabio Corradi).

Speakers

**Monica Musio (Università di Cagliari)**  
*Probability of Causation and Bayesian Inference*

**Fabrizia Mealli (Università di Firenze)**  
*Causal Inference: A Bayesian Perspective*

**Corwin Ziegler (Harvard T.H. Chan School of Public Health)**  
*Bayesian Methods for Principal Stratification and Causal Mediation Analysis with Multiple Intermediates: Evaluating Power Plant Regulatory Interventions*

**13:00 – 14:30 LUNCH**

**14:30 – 16:00 SESSION 2 Computational Statistics and Big Data Challenge**  
(organizer: Antonietta Mira)

**Nial Friel (University College, Dublin, Ireland)**  
*Approximate Bayesian inference for large datasets*

**Antonio Canale (Università di Torino)**  
*Scalable multiscale density estimation*

**Roberto Casarin (Università di Venezia)**  
*Bayesian analysis of networks*

16:00 – 17.30 **Poster Presentation** (5 minutes each)

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|-----------------------------|--|---|
| <b>Crescenza Calculli</b>   | Università di Foggia   | Bayesian modeling for the characterization of fish fauna assemblages in a newly recorded cold-water coral site in the Mediterranean sea.        |
| <b>Rina Camporese</b>       | Istat  | The Witches of Bayes  |
| <b>Alessia Caponera</b>     | Sapienza Università di Roma  | Adaptive Smoothing Spline with Application to Seismic Data  |
| <b>Federico Castelletti</b> | Università di Milano Bicocca   | Objective Bayesian graphical model selection with observational and interventional data   |
| <b>Annalisa Cerquetti</b>   |  | Bayesian nonparametric testing of Hubbell's neutral hypothesis: expected heterozygosity decomposition under mainland-island community structure |
| <b>Silvia D'Angelo</b>      | Sapienza Università di Roma  | Latent Space Model for Multidimensional Networks  |
| <b>Davide Di Cecco</b>      | Istat  | A Bayesian approach to the estimate of a population size based on multiple incomplete lists with false captures                                 |
| <b>Leonardo Egidi</b>       | Università di Padova   | A Hierarchical Bayesian Model for Football Scores using the Bookmakers Odds   |
| <b>Paolo Giraldi</b>        | Venetian Mesothelioma Registry, Occupational Health Unit, Local Health | Bayesian spatio-temporal analysis of mesothelioma incidence in the Veneto   |

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|                              | Authority of Padua, Padua, Italy | Region using R-INLA   |
| <b>Gianluca Mastrantonio</b> | Politecnico di Torino            | Bayesian Model-Based Space-Time Joint Interpolation of Temperature and Rainfall Fields for Ecoregion Climatic Characterization in Italy |
| <b>Rosa Lipsi</b>            | Istat                            | Regional Population Estimation with Italian Administrative Data: preliminary results of the Bryant and Graham approach                  |
| <b>Cristina Mollica</b>      | Sapienza Università di Roma      | PLMIX: An R package for modeling and clustering partially ranked data   |
| <b>Federica Nicolino</b>     | Università di Pavia              | Multivariate Dependence Analysis via Tree Copula Models: an Application to Energy Market  |
| <b>Antonio Parisi</b>        | Università di Roma Tor Vergata   | Objective Bayesian analysis for the multivariate skew-t model   |
| <b>Tommaso Rigon</b>         | Università Bocconi               | Bayesian semiparametric modelling of contraceptive behavior in India via sequential logistic regressions                                |
| <b>Manuel Rizzo</b>          | Sapienza Università di Roma      | Evolutionary Computation and multiple chains MCMC sampling: a review  |
| <b>Alberto Sorrentino</b>    | Università di Genova             | Monte Carlo methods for Bayesian inverse problems   |
| <b>Dario Brischolini</b>     | Sapienza Università di Roma      | New methods for small area estimation with linked data  |
| <b>A. Sottostanti</b>        | Università di Padova             | Searching for Gamma Ray Sources in the Extra-Galactic Space: A Statistical Analysis of the Fermi LAT Data                               |
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17:30 – 20.30 **Poster/Aperitif**

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## **Wednesday, February 8**

8:30 – 10:30 Tutorial on **An introduction to Bayesian computing with INLA** (M. Cameletti, Università di Bergamo)

10:30 – 11:00 **Coffee Break**

11:00 – 12:30 **SESSION 3 Bayesian Nonparametrics** (organizers: *Sonia Petrone – Andrea Ongaro*)

**Bernardo Nipoti (Trinity College, Dublin, Ireland)**  
*On the Pitman-Yor process with spike and slab prior specification*

**Daniele Durante (Università di Padova)**  
*Bayesian Nonparametric Modeling of Dynamic Networks*

**Isadora Antoniano Villalobos (Universita' Bocconi)**  
*Bayesian Inference for the Extremal Dependence*

12:30-14:00 **LUNCH**

14:00 – 15:30 **SESSION 4 Likelihood Free Methods** (organizers: *B. Liseo and L. Ventura*)

**Federica Giummolè (Università di Udine)**  
*Reference priors based on scoring rules.*

**Erlis Ruli (Università di Padova)**  
*Approximate Bayesian inference from unbiased estimating functions.*

**Clara Grazian (Università di Roma Sapienza)**  
*Modelling Ranking Data with Wallenius Distribution.*

15:30 – 17.00 **SESSION 5 Model Selection and Testing** (organizer *Guido Consonni*)

**Luca La Rocca (Università di Modena e Reggio Emilia)**

*Objective Bayesian model comparison: A subjective view.*

**David Rossell (Universitat Pompeu Fabra, Barcelona)**

*Extending the basic paradigm: likelihood and priors.*

**Francesco Stingo (Università di Firenze)**

*Bayesian model selection for graphical models: review and recent developments.*

17.00: **Closure**