

INFN School of Statistics 2013

Vietri sul Mare (Salerno, Italy)

June 3rd – 7th 2013



Organizing Committee

Scientific Programme

Tommaso Dorigo (INFN Padova)
Riccardo Faccini (Univ. La Sapienza and INFN Roma)
Luca Lista (INFN Napoli)
Giovanni Punzi (INFN Pisa)

Local organization

Giovanni De Lellis (Univ. Federico II and INFN Napoli)
Guglielmo De Nardo (Univ. Federico II and INFN Napoli)
Luca Lista (INFN Napoli)
Emanuele Vardaci (Univ. Federico II and INFN Napoli)

Lecturers

Glen Cowan (Royal Holloway, London)
Luc Demortier (Rockefeller University, New York)
Lorenzo Moneta (CERN, Geneva)
Jochen Ott (KIT, Karlsruhe)
Harrison Prosper (Florida State University, Tallahassee)

Scientific Programme

Probability theory

- Introduction to probability theory
- Bayesian and frequentist approaches to probability
- Random variables, distributions and main properties

Statistical inference

- Parameter estimates, properties of estimators
- Maximum likelihood method
- Pearson and Neyman chi-squares

Confidence intervals and upper limits

- Hypothesis testing
- Goodness of fit
- Frequentist and Bayesian upper limits

Multivariate discriminators

- Overview of multivariate discrimination methods
- Artificial neural networks
- Boosted decision trees

Statistical software tools

- Overview of the main statistical tools
- RooFit, RooStats
- Usage examples and code demonstrations

Deadline for application: April 1st 2013:
<http://agenda.infn.it/event/inf-n-stat-2013>



Sezione di Napoli

Università degli Studi di
Napoli "Federico II"
Dipartimento di Fisica