A Gentle Introduction to Bayesian Nonparametrics

Instructor: Brunero Liseo

Location: Department of Economics, University of Perugia,
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Instructor details

Brunero Liseo is professor of Statistics at the Department of Methods and Models for Economics and Finance, Sapienza University of Rome, Italy.
His research interests include foundational issues, inference from a Bayesian perspective and copula representation of multivariate distributions. From a more applied perspective, he is interested in the popularization of Bayesian methods in Official Statistics.

Outline of the course

This course provides a theoretical and practical introduction to Bayesian nonparametrics statistical procedures, rapidly developed in the last years. It will start with the necessary theoretical notions of:

- Exchangeability and de Finetti's Theorem;
- Dirichlet Process;
- Mixture models.

The second part of the course will be devoted to the practical use of this methods and their computational aspects.

Prerequisites

- Basic Probability Theory;
- Basic parametric Bayesian inference;
- R programming.

Suggested reading

- Bayesian Nonparametric Data Analysis.

Schedule

- September 26 (Tue), 9.30-12.30 and 14-15.30, Department of Economics, University of Perugia, Room 23;
- October 3 (Tue), 9.30-12.30 and 14-15.30, Department of Economics, University of Perugia, Room 23;
- October 10 (Tue), 9:30-12:30, Department of Economics, University of Perugia, Room 23.

Subscription

Subscription (link) is required.