

Nonparametric smoothing techniques

PhD School, XXV cycle
(September - October 2010)

Contact information

- Instructor : Carlo Gaetan
- Office: Dipartimento di Statistica, Università Ca' Foscari - Venezia
- Tel: 0412347437
- e-mail: gaetan@unive.it

Course Description

This course presents to the students an overview of recent nonparametric techniques in statistical analysis. The discussed techniques form the basis of modern nonparametric or so-called smoothing procedures.

Objectives

The idea of this course is to get the students acquainted with the fundamentals, basic properties and use of the most important recent nonparametric techniques. One of these techniques will be explored in more detail. A second aim is to get students acquainted to research questions in this domain.

Schedule

Date	Time	Room	Topics
20/09	14.30 - 16.30	aula B, palazzo Moro	Introduction of various smoothers
22/09	11.00 - 13.00	sala consiglio	Local regression
27/09	14.30 - 16.30	aula B palazzo Moro	Splines
29/09	11.00 - 13.00	sala consiglio	Resampling methods: bias, variance, and their trade-off
04/10	14.30 - 16.30	aula B palazzo Moro	Orthogonal series
06/10	14.30 - 16.30	sala consiglio	Density estimation

Recommended text

- Wasserman L. (2007) All of Nonparametric Statistics, Springer

Final Exam: Written exam, date to be defined.

Related activities: research seminars in Venice

Date	Time	Room	Topics	Speaker
27/09	10.30 - 12.30	TBA	A new perspective in nonparametrics: data depth	M. Romanazzi Ca' Foscari University
29/09	10.00 - 11.00	sala consiglio	The problem of prediction	F. Giummolé Ca' Foscari University
04/10	11.00 - 12.00	sala consiglio	Outliers, bias and robust statistics	C. Agostinelli Ca' Foscari University
06/10	12.00 - 13.00	sala consiglio	TBA	A. Lijoi Pavia University