

Nonparametric Smoothing Techniques
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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.

Program

2	October	14.00-16.00	Basic concepts in smoothing.
6	October	9.00-11.00	Kernel regression
6	October	11.00-13.00	Computer lab
9	October	14.00-16.00	Splines I
13	October	9.00-11.00	Splines II
13	October	11.00-13.00	Computer lab
16	October	14.00-16.00	Multivariate extensions
20	October	9.00-11.00	Generalized additive models
20	October	11.00-13.00	Computer lab

Recommended text

- Eubank, R.L. (1999), Nonparametric Regression and Spline Smoothing, Second Edition, Dekker
- Wang, Y (2011), Smoothing Splines: Methods and Applications, Chapman & Hall/CRC
- Wasserman, L. (2006), All of Nonparametric Statistics , Springer
- Wood, S.N. (2006), Generalized Additive Models: An Introduction with R, Chapman & Hall/CRC

Final Exam

7 November , 9.00