Andreas Brezger, Thomas Kneib and Stefan Lang Ludwig-Maximilians-Universität München

BayesX: Analysing Bayesian semiparametric regression models

Abstract:
There has been much recent interest in Bayesian inference for generalized additive and related models like varying coefficient or mixed models.
Up to now, software has only been available for the frequentist versions of these models. This gap of existing software was one of the main reasons for developing BayesX, a software system for Bayesian inference via Markov Chain Monte Carlo (MCMC) simulation techniques. This talk describes how Bayesian semiparametric regression models can be estimated using BayesX. The program extends the capabilities of existing software packages for nonparametric regression.