

PROBABILITY SEMINAR

Fall 2002

Some Remarks on Change-Point Analysis

Marie Huskova
Charles University, Prague

In change-point analysis, we typically observe Y_1, \dots, Y_n at time-points t_1, \dots, t_n . Two questions arise: (i) Is the statistical model for all of the observations the same (no change), or does it change at some unknown time-point. (ii) What can be said about the time of the change?

Problem (i) leads us to the testing problem, H_0 : there is no change versus H_1 : there is a change. Problem (ii) is an estimation problem.

This talk is concerned with producing test-procedures, and analyzing their limit properties. The possibility of using bootstrap approximations to get estimate the critical values will be discussed. Finally, applications involving real data will be presented.

Wednesday September 4; 4:05 p.m.–5:00 p.m.; JWB 308