

Nonparametric Hypothesis testing in spatial regression model

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Abstract: We consider the problem of testing hypotheses on the signal function in a spatial regression model. We wish to test the null hypothesis characterized by a single hypothesis against a composite nonparametric alternative. The signal functions under the alternative are separated in the sup-norm from the one lying under the null. The signal functions are supposed to belong to a s -smooth Holder functional class. The testing problem is solved according to the minimax approach.

Keywords: spatial regression, nonparametric test hypotheses, minimax approach