Nonparametric Comparison of Regression Curves

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Abstract: In this talk we study tests to compare regression curves in two samples, when the design variables are random. A major problem comes from the fact that the unknown distributions of the regressors may be unequal. We discuss a new class of score tests and show that they are maximin. The optimal weight function depends on the design distributions, the (conditional) variances of the error variables and on the ratio of the sample sizes. The tests have nontrivial power w.r.t. local alternatives converging to the null hypothesis of equal regression at parametric rates.

References

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