

Change-point detection in two-phase regression with inequality constraints

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Abstract

Two-phase regression models with inequality constraints on the regression parameters and with a small number of measurements are considered. Tests for the presence of a change-point are constructed. The tests procedure are based on the likelihood ratio in a linear model with inequality constraints. Numerical approximations to the powers against various alternatives are given and compared with the powers of the likelihood ratio tests in the two-phase regression models without inequality constraints and with the powers of some other tests.

Keywords

Change-point, Two-phase regression, Linear regression model with inequality constraints, Likelihood ratio test.

References

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