

Bilinear form test in extremum estimation: A finance application

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Abstract

This research explores the bilinear form test proposed by Crudu and Osorio (2020), which is a generalization of the Gradient statistic proposed by Terrell (2002), in the context of extremum estimation. The proposed statistics converge to conventional chi-square limits and Monte Carlo experiment suggests that the statistic works well in finite samples. A finance application is considered for the capital asset-pricing model.

References

1. Crudu, F. and Osorio, F. (2020). Bilinear form test statistics for extremum estimation. *Economics Letter*, 187: 108885.
2. Terrell, G. R. (2002). The gradient statistics. *Computing Science and Statistics*, 34: 206-215.