Some diagnostic tools for regression quantiles

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The paper examines various diagnostic tests for regression quantiles based on the asymptotic representation of the first order. The L1-estimator is included as a special case.

The Durbin–Watson test is a standard diagnostic technique for regression residuals, testing their independence against the alternative of autocorrelation. We compare two approaches for performing the Durbin–Watson test after computing the regression quantile fit. One method is based on the asymptotic equivalence of the critical value with that based on least squares. Another possibility is to approximate directly the exact critical value depending on the design matrix, similarly with Kalina (2007).

We present analogous asymptotic properties for heteroscedasticity tests. These include the Goldfeld–Quandt test or Breusch–Pagan test among others.

REFERENCES

Kalina J. (2007): Autocorrelated errors of least weighted squares. Submitted to *Forum statisticum Slovacum.*