

Old Equation (14) from Oxford Handbook piece.

$$LM_{\lambda}^* = \frac{\left( \hat{\varepsilon}'W\hat{\varepsilon} / \hat{\sigma}_{\varepsilon}^2 - \left[ T\hat{\sigma}_{\varepsilon}^2 (G + T\hat{\sigma}_{\varepsilon}^2)^{-1} \right] \hat{\varepsilon}'Wy / \hat{\sigma}_{\varepsilon}^2 \right)^2}{T \left[ 1 - \frac{1}{\hat{\sigma}_{\varepsilon}^2} (G + T\hat{\sigma}_{\varepsilon}^2) \right]^{-1}}$$

Correct formula for robust LM test against spatial-error alternative.

$$LM_{\lambda}^* = \frac{\left( \hat{\varepsilon}'W\hat{\varepsilon} / \hat{\sigma}_{\varepsilon}^2 - \left[ T\hat{\sigma}_{\varepsilon}^2 (G + T\hat{\sigma}_{\varepsilon}^2)^{-1} \right] \hat{\varepsilon}'Wy / \hat{\sigma}_{\varepsilon}^2 \right)^2}{T \left[ 1 - \frac{T\hat{\sigma}_{\varepsilon}^2}{G + T\hat{\sigma}_{\varepsilon}^2} \right]}$$

Old Equation (15) from Oxford Handbook piece.

$$LM_{\rho}^* = \frac{\hat{\sigma}_{\varepsilon}^2 \left( \hat{\varepsilon}'Wy / \hat{\sigma}_{\varepsilon}^2 - \hat{\varepsilon}'W\hat{\varepsilon} / \hat{\sigma}_{\varepsilon}^2 \right)^2}{G + T(\hat{\sigma}_{\varepsilon}^2 - 1)}$$

Correct formula for robust LM test against spatial-lag alternative.

$$LM_{\rho}^* = G^{-1} \hat{\sigma}_{\varepsilon}^2 \left( \hat{\varepsilon}'Wy / \hat{\sigma}_{\varepsilon}^2 - \hat{\varepsilon}'W\hat{\varepsilon} / \hat{\sigma}_{\varepsilon}^2 \right)^2$$