A Spatial dynamic panel data model with both time and individual fixed effects.

This paper establishes asymptotic properties of quasi-maximum likelihood estimators for spatial dynamic panel data with both time and individual fixed effects when the number of individuals n and the number of time periods T can be large.
asymptotic 渐近线的，渐近的

1.introduction

for dynamic panel data model
there is time effects.

$$n^{\frac{1}{3}}/T \to 0$$

$$n/T \to 0$$

- Section2:model&transformation procedure;QML(**Quasi-maximum likelihood**)
- Section3：consitency and asymptotic distribution of QML
- Section4:asymptotic properties of the direct approach estimator.

2.the model

$$Y_{nt} = \lambda_0 W_n Ynt + \gamma_0 Y_{n,t-1} + \rho_0 W_n Y_{n,t-1} + X_{nt}\beta_0 + c_{n0} + \alpha_{t0} l_n + V_{nt}$$

,t=1,2,...,T,
$Y_{nt} = (y_{1t}, y_{2t}, ..., y_{nt})'$
$V_{nt} = (v_{1t}, v_{2t}, ..., v_{nt})'$
W_n:spatial weight matrix