

Abstract: This paper develops a Mean Group Instrumental Variables (MGIV) estimator for spatial dynamic panel data models with interactive effects, under large N and T asymptotics. Unlike existing approaches that typically impose slope-parameter homogeneity, MGIV accommodates cross-sectional heterogeneity in slope coefficients. The proposed estimator is linear, making it computationally efficient and robust. Furthermore, it avoids the incidental parameters problem, enabling asymptotically valid inferences without requiring bias correction. The Monte Carlo experiments indicate strong finite-sample performance of the MGIV estimator across various sample sizes and parameter configurations. The practical utility of the estimator is illustrated through an application to regional economic growth in Europe. By explicitly incorporating heterogeneity, our approach provides fresh insights into the determinants of regional growth, underscoring the critical roles of spatial and temporal dependencies.