Séminaire

**Résumé** :

The spatial autoregressive (SAR) model is a standard tool for analyzing data with spatial correlation among economic units. Conventional estimation methods rely on the key assumption that the spatial weight matrix is strictly exogenous, which would likely be violated in some empirical applications where spatial weights are determined by economic factors. This paper studies the estimation method of a cross-sectional SAR model with spatial weights constructed by bilateral variables like trade. The unobserved trade resistance measured by specific spatial unit e§ects can directly a§ect the spatial outcome and thus cause endogeneity in the spatial weights. We establish the consistency and asymptotic normality of the two-stage instrumental variable (2SIV) estimator and investigate their finite sample properties by a Monte Carlo study. We apply our method to an empirical study of TFP and find no evidence of spillover once we control for the trade resistance.