LES ATELIERS DU CERPE

Le **lundi 13 décembre** à **12H45** à la **salle académique** de la faculté de droit (5e étage)

Petite restauration dès 12H30 (réservation souhaitée à nicolas.gonne@fundp.ac.be)

Nicolas Debarsy

CERPE

Interpreting Space-Time Panel Data Models

Joint work with J.P. LeSage (Texas State U. San Marcos) and C. Ertur (Université d'Orléans)

Résumé A great deal of literature regards the asymptotic properties of various approaches to estimating simultaneous space-time panel models, but little attention has been paid to the interpretation of the model estimates. Space-time panel models provide information that is not available from cross-sectional spatial regressions. Cross-sectional simultaneous spatial autoregressive models can be viewed as a limiting outcome of a dynamic space-time autoregressive process. A valuable aspect of dynamic space-time panel data models is that the own- and cross-partial derivatives that relate changes in the explanatory variables to those that arise in the dependent variable are explicit. This allows the use of the parameter estimates from these models to quantify dynamic responses over time and space as well as space-time diffusion impacts. We illustrate our approach using the demand for cigarettes over a 30 year period from 1963-1992, where the motivation for spatial dependence is a bootlegging effect where buyers of cigarettes near state borders purchase in neighboring states if there is a price advantage to doing so.