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# ECONOMETRIC RESEARCH SEMINAR

- January 22, 2009, 9:15 am
- SZVI
  Institut für Höhere Studien
  Stumpergasse 56, 1060 Wien

**Jan Mutl,**
*Institute for Advanced Studies:*

## *"The Spatial Random Effects and the Spatial Fixed Effects Model: The Hausman Test in a Cliff and Ord Panel Model"*

This paper studies the spatial random effects and spatial fixed effects model. The model includes a Cliff and Ord type spatial lag of the dependent variable as well as a spatially lagged one-way error component structure, accounting for both heterogeneity and spatial correlation across units. We discuss instrumental variable estimation under both the fixed and the random effects specification and propose a spatial Hausman test which compares these two models accounting for spatial autocorrelation in the disturbances. We derive the large sample properties of our estimation procedures and show that the test statistic is asymptotically chi-square distributed. A small Monte Carlo study demonstrates that this test works well even in small panels.

with Michael Pfaffermayr (University of Innsbruck and Austrian Institute of Economic Research).