



INSTITUT FÜR HÖHERE STUDIEN
INSTITUTE FOR ADVANCED STUDIES
Vienna

APPLIED ECONOMETRICS AND EMPIRICAL ECONOMICS SEMINAR

November 9, 2011, 4 pm

**Institute for Advanced Studies
1060 Vienna, Stumpergasse 56
HS II (lecture room II)**

Hedibert Lopes

University of Chicago

Bayesian instrumental variables: likelihoods and priors

Instrumental variable regression provides a number of statistical challenges due to the shape of the likelihood. We review the main Bayesian literature on instrumental variables and highlight these pathologies. We discuss Jeffreys priors, the connection to the errors-in-the-variables problems and more general error distributions. We propose, as an alternative to the inverted Wishart prior, a new Cholesky-based prior for the covariance matrix of the errors in IV regressions. We argue that this prior is more flexible and more robust than the inverted Wishart prior since it is not based on only one tightness parameter and therefore can be more informative about certain components of the covariance matrix and less informative about others. We show how prior-posterior inference can be formulated in a Gibbs sampler and compare its performance in the weak instruments case.

with Nicholas Polson (University of Chicago)

DOWNLOAD SITE FOR PAPERS (IF AVAILABLE) AND SEMINAR SCHEDULE: <http://economics.ihs.ac.at/seminars>

NOTE: Participation of advanced students in this seminar is highly recommended.