

**Spatial Filtering, Model Uncertainty and the Speed of
Income Convergence in Europe**
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In this paper we put forward a Bayesian Model Averaging method dealing with model uncertainty in the presence of potential spatial autocorrelation. The method uses spatial filtering in order to account for different types of spatial links. We contribute to existing methods that handle spatial dependence among observations by explicitly taking care of uncertainty stemming from the choice of a particular spatial structure. Our method is applied to estimate the conditional speed of income convergence across 255 NUTS-2 European regions for the period from 1995 to 2005. We show that the choice of a spatial weight matrix – and in particular the choice of a class thereof – can have an important effect on the estimates of the parameters attached to the model covariates. We also show that estimates of the speed of income convergence across European regions depend strongly on the form of the spatial patterns which are assumed to underlie the dataset. When we take into account this dimension of model uncertainty, the posterior distribution of the speed of convergence parameter has a large probability mass around a rate of convergence of 1%, approximately half of the value which is usually reported in the literature.