

A Bayesian analysis of time distance on commuting

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Abstract. In this work we propose a Poisson interaction gravity model with spatial effects that allows us to study the influence exerted by time distance on commuting. Special attention is given to the form of the time distance decay function. The selection and estimation processes are carried out using Bayesian tools based on the use of auxiliary mixture sampling. For illustration purposes, the methodology is applied to a dataset containing information of commuters from the Spanish region of Aragon.

Keywords. Gravity model; Commuting; Auxiliary mixture sampling; Bayesian Inference; Spatially structured random effects.

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