

## Abstract

Management and planning of transportation is becoming more important in terms of continuously growing intensity of spatial interactions, which are still mostly realized through transport networks. That's why we can deal with this specific problem of transportation geography using for example spatial interactions modeling. The general aim of the thesis is modeling of spatial interactions and their subsequent comparison with real flows by using calibration in order to predicate the future value of flows taking the planned changes in the transport network in consideration. The main tool used to achieve the goal of the thesis is the gravity model which was applied on the example of regional capitals in the Czech Republic. Based on accomplishments we may say, that centers with lower significance of monitored relations are characterized by further location towards most centers, small number of inhabitants, low intensity of model interactions and lower values of transport intensities with neighboring centers. With the center growth itself, its range of interactions with other centers grows as well.

Key Words: spatial interactions modeling, gravity model, model interaction, transport intensity, regional capitals