Title: Employment, transport infrastructure and rural depopulation

## Authors:

David Philip McArthur[1], Inge Thorsen[2] and Jan Ubøe[3] [1] University of Oslo [2] Stord/Haugesund University College [3] NHH Norwegian School of Economics

## Abstract:

In this paper we consider simple numerical examples based on a spatial general equilibrium model, to discuss issues related to the possibility of rural depopulation. The discussion is focussing on how investments in transport infrastructure and the spatial distribution of basic sector jobs can promote a relatively balanced growth of peripheral and central areas of a region. Through interdependencies in individual migration decisions and an economic base multiplier mechanism, negative exogenous shocks may be taking a peripheral zone beyond a bifurcation point, into an equilibrium of dramatically lower population and employment. We study how the location of bifurcation points depends on spatial interaction behavioural parameters and variables subject to regional policy, and we further discuss timing issues related to intervention intended to prevent a process of rural depopulation.