Agent-based Model(**ing**) of Migrant Workers Residential Dynamics within a Mega-city Region: the Case of Zhuijiang Delta, China

Working Paper

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Abstract

Over the last three decades, rural-urban migrant-workers have been a driving force for China's economy, raising attention on associated socio-economical issues. However, the importance of their socio-economic diversity and evolution has been poorly taken into account in the analysis/study (?) of urban development strategy.

We use an agent-based model(**ing**) to investigate the influence of the evolution of migrants’ socio-economical status/structure (?) on their residential discrete choices in Pearl River Delta (PRD) mega city region. Mega-city regions have become a new scale of Chinese State regulation, and PRD represent the most prosperous and dynamic one in term of migration waves, standing as an ideal unit of analysis. We perform several agent-based simulations based on synthetic data (internally validated for statistical consistence) and path-dependence process embodying a variety of temporal trajectories.

Inferring migrants’ population dynamics from a patch-level, our model not only reveal how actors react to an uncertain future in real time but also disclose a top-down fashion, denoting state power rescaling.

This case study allows first to test how variation in socio-economic status yield more complex trajectories, and secondly to identify how the Party-State persist in controlling internal migration flows in a more sophisticated and strategically redefined way.