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*“Agent-based modeling of migrant workers residential dynamics within a mega-city region: the case of Pearl River Delta ”*

**Presentation**: This presentation focuses on a collaborative research projects between Juste Raimbault and Cinzia Losavio, and it is the result of a transfer of knowledge between researchers with very different backgrounds and methods.

Combining qualitative and quantitative research Cinzia and Juste use an agent-based model to simulate residential dynamics of migrants in the Pearl River Delta (PRD) mega city region. Although the model doesn't use statistical data but synthetic data, the two researchers identified a need for qualitative research in order to further investigate relevant contextual factors.

First, they gave a clear definition of Mega-City Regions (MCRs), which are integrated sets of cities and their surrounding suburban hinterlands across which labour and capital can be reallocated at very low cost (Florida, Gulden, & Mellander, 2008). This notion was first coined by Gottmann (1961) using the term *megalopolis* – defined as an “urban area of several tens of millions of people, including several cities and major urban centers, and extending continuously over several 100 km”. Since metropolitan regions not only grow upward and become denser, but also grow outward and into one another (Florida et al., 2008), MRCs are strongly characterized by the “symbiosis between urban and rural areas”. The result of this fast growth is a network of metropolitan areas deployed around very large cities (Swerts & Denis). Other MCRs’ characteristics are migration flows, density of connections, and regional migration patterns.

Second, Cinzia and Juste explained the raison why they chose PRD as unity of their study. Since the gradual decentralization of the State power, which occurred in the beginning of 1990, MCRs have become a new scale of Chinese State regulation. In particular, the Pearl River Delta represents the most prosperous and dynamic one in term of migration waves. Since the Open Door Policy was implemented in 1978 the PRD launch a process of rapid economic and social transformation, becoming a global manufacturing region attracting an increasing number of migrant-workers from all over China. The fast economic growth results in an astonishing rise of the population in the area, which today count more than 50 million people. If during the first year of the opening-up reforms the barycenter of the region was Guangzhou, over the last decade PRD has become increasing polycentric.

Taking PRD as the unit of our model Cinzia and Juste try to reproduce migrants’ residential patterns taking into account the full range of migrants’ socio-economical status and their evolution.

Although migrant workers are generally considered and treated as a uniform category, Cinzia’s previous research showed how considering their economical, cultural and human capital, migrant workers are a very diversified social category. Three dimensions have been proven to be essential for understanding migrant workers: the professional dimension, the residential dimension, and the generational dimension. Those dimensions not only influence migrants’ economical situation but also their residential location, trajectory, and duration into the city. It results that migrant workers have different mobility patterns, which Cinzia and Juste try to simulate in their model.

Considering the diversity of migrant workers and translating it in qualitative stylized facts that correspond to precise patterns of synthetic data, this model aims at establishing a new perspective for understanding China’s urban and regional mobility employing a more qualitative approach, specifying the mechanisms though which Party-State shape the parameters of migrants’ choices.

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**Discussion:** Due to a lack of time, no questions were raised.