Day1 【Oct 8-2】11:30~12:00

Hiroyasu Inoue (University of Hyogo)

"Disaster and Countermeasure: Simulation on Nation-Wide Supply Chain Data"

Abstracts:

Every nation takes priority for inclusive economic growth and development of all regions. However, we observe economic activities are clustered in space, which results in a disparity in income per capita among different regions. A complexity based method was proposed by C. A. Hidalgo and R. Hausmann [2009] for explanation of large gaps in income per capita across countries. Although there is an extensive study on countries' economic complexity using international export data, the study of economic complexity at regional level is lacking. Here, we study the industrial sector complexity of prefectures in Japan based on the basic financial information on more than a million firms. We aggregate the data as a bipartite network of prefectures (P = 47) and industrial sectors (S = 97). We decompose the bipartite network as prefecture-prefecture network and sector-sector network. Using the minimal spanning tree technique, we show the clustering among prefectures and sectors. The computed economic complexity index for the prefectures shows high correlation with macro-economic indicators, such as sales per employee and gross prefecture product per capita.