

Senior Thesis

Qinggong Wu

Advisor: Dan Rockmore

A Comparative Network Analysis of International Migration and Trade Networks

Abstract:

In this paper, network analysis methods are used to analyze the international migration and trade networks. Clustering coefficients of the two networks are computed to indicate that both are densely connected. Degree distributions are analyzed to imply evidence of preferential attachment process during the formation of the networks. Major flow receivers and senders on the networks are determined according to both in/out-degrees and authority/hub scores. Different community structures are identified using a thresholding and modularity maximization. Comparison of the two networks reflects that they are similar in structure and correlated with respect to some important properties, which implies common social forces underlie both networks.