

# Cellular Automata Simulation for Wealth Distribution

羅仕京

Transportation Technology and Logistics Management

Management

sclo@aa.nctu.edu.tw

## Abstract

Wealth distribution of a country is a complicate system. A model, which is based on the Epstein & Axtell's "Sugars cape" model, is presented in Netlogo. The model considers the income, age, working opportunity and salary as control variables. There are still other variables should be considered while an artificial society is established. In this study, a more complicate cellular automata model for wealth distribution model is proposed. The effects of social welfare, tax, economical investment and inheritance are considered and simulated. According to the cellular automata simulation for wealth distribution, we will have a deep insight of financial policy of the government.

Keyword : Gini index, Lorenz curve, wealth distribution, cellular automata