October 26, 2022   
SEMINAR: China Economy Seminar   
Harvard University, Department of Economics   
Host: Professor Richard B. Freeman

SPEAKER: Xiaoying Li (Sun Yat-sen University)

TITLE: “Robot Adoption and Labor Share: Firm-level Evidence from China”   
PAPER: joint with Yin Tan (Guangdong Univ of Finance, China) and Richard B. Freeman (Harvard and NBER)   
  
ABSTRACT:   
This paper combines robot import information with firm level data from 2000 to 2015 to investigate the effect of robotization on the labor share of manufacturing firms. We compare the firms with cloned firms with similar background with the propensity score matching and difference in difference method, the results show that robotization can increase labor share by around 10% on average. There is cumulative effects of robotization on labor share, as we see the effect becomes larger and more significant 2 years from the start year of robot use. The use of robots has caused a decrease in the proportion of workers engaged in production and those with a junior high school degree or below, which show the replacement effect of robots. Meanwhile robot adoption has increased the proportion of employees with high school and college degrees, which depicts the job creation effect of robots.

BIO:   
Xiaoying Li is Associate Professor of Economics in Sun Yat-sen University. Her research interest mainly lies in two area: the first is innovation, robotization and labor market outcomes in China; the second is place-based policies including Special Economic Zones, High-Tech Zones, and innovation in China. She teaches development economics, econometrics, as well as Chinese Economy in Sun Yat-sen University. She visited Harvard University in 2010 and 2016.