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SEMINAR: Economics of Science & Engineering | joint with | China Economy Seminar  
Harvard University, Department of Economics   
Host: Professor Richard B. Freeman

SPEAKER: Shule Yu (Fudan University)  
TITLE: “How Robots Impact Labor Relations? Evidence from China”  
PAPER: joint with Xueling Yan (Sichuan University) and Richard Freeman (Harvard + NBER)  
  
ABSTRACT:   
Using a manually collected labor dispute judgement dataset and robot import firm dataset in China, we study the impact of robots on firm-level labor relations. The results show: (1) Rather than traditional machines, robots significantly increased both the number and the average money involved in labor disputes of firms. (2) We also provide suggestive evidence that the negative shock is not temporary but lasts for at least three years. (3) Due to the skill-biased technical change and development cycle, the impact shows great heterogeneity across different regions and firms. (4) Employee structures result in various complementarity and substitutability between robots and workers, and these two effects determine the aggregate impact of robots on labor relations. Overall, our findings provide the first piece of empirical evidence on how robots impact the labor relations climate and help us understand a “hidden cost of automation” for society.

BIO:   
Xueling Yan is an Assistant Professor in School of Economics, Sichuan University. She got her Ph.D. in 2016 and now her research interests are labor economics and international trade. She also teaches labor economics and world economy in Sichuan University since 2016. She visited Harvard University in 2019.

BIO:  
Shule Yu is a PhD candidate in School of Economics, Fudan University. His research interests lie in labor and law economics with a special focus on: 1. Innovation and Robotization; 2. Evolution of China’s Judicial Reform  
  
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