



Keble College / University of Oxford



SEMINAR SERIES / Michaelmas 2013

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Seminar webpage:

[www.cabdyn.ox.ac.uk/complexity\\_seminars.asp](http://www.cabdyn.ox.ac.uk/complexity_seminars.asp)

## 'Labor flow networks and new ways of understanding labor markets'

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**Tuesday 22<sup>nd</sup> October, 12.30 -14.00**

**Roy Griffiths Room (ARCO), Keble College**

### ABSTRACT:

It is conventional in labor economics to treat all workers who are seeking new jobs as belonging to a labor pool, and all firms that have job vacancies as an employer pool, and then match workers to jobs. Here we develop a new approach to study labor and firm dynamics. By combining the emerging science of networks with newly available employment micro-data, comprehensive at the level of whole countries, we are able to broadly characterize the process through which workers move between firms. Specifically, for each firm in an economy as a node in a graph, we draw edges between firms if a worker has migrated between them, possibly with a spell of unemployment in between. An economy's overall graph of firm-worker interactions is an object we call the labor flow network (LFN). We will show some results that connect LFNs to labor dynamics and job creation. We argue that LFNs offer a new way to understand the labor market, providing robust properties of the "space" through which individuals search jobs and firm recruit. We will discuss different directions of this research agenda, in particular: (i) how do LFNs affect important aspects of labor markets such as unemployment rates, and (ii) how do LFNs emerge from economic interactions. In order to fully take advantage of this new approach, we employ diverse methods such as complex networks analysis, agent-based computational modeling, and laboratory experiments with human subjects. We will discuss future directions of our agenda and the potential repercussions in labor and macroeconomic policy.

**Please note:** although the seminar programme detailed was correct at time of printing, seminar arrangements are subject to change – for the latest information, please check the seminar webpage.

