

## **Economics Seminar, Indian Statistical Institute, New Delhi**

**SPEAKER:** Motty Perry, Hebrew University of Jerusalem and University of Warwick

**TITLE:** Dynamic Contracts with Adverse Selection and Moral Hazard

**DAY AND DATE:** 11:30 AM, Wednesday, 5th January, 2011

**VENUE:** Seminar Room 2, ISI Delhi

### **ABSTRACT**

This paper studies a novel dynamic principal agent setting with moral hazard and adverse selection (persistent as well as repeated). In the model an expert whose skills is his private information, faces a finite sequence of tasks, one after the other. Each task's level of difficulty is an independent random variable revealed, upon arrival, to the expert only. On each task in turn the expert choose whether to pass or to work, and how much effort to exert. While the choice of work/pass is public, his effort is his private information. The optimal contract-pair which takes advantage of the dynamic nature of the interaction is characterized. It is shown that as the length of the contract increases, the expected transfer per-period goes down and in the limit approaches the optimal payment when agent's skills are publicly known.

One example of such a dynamic interaction is the one occurs between a money manager who receives funds from investors, and then observes a sequence of investment opportunities. Another example that nicely fits this model is the design of optimal contracts to surgeons of different quality, to treat a flow of patients whose problems are the surgeon's private information.