

April 29, 2013  
KAP 414  
2:15 PM – 3:15 PM

Prof. Ali Lazrak  
(University of British Columbia)

*“Time Inconsistency with a Continuum of Decision Makers”*

**Abstract:** Examples will be provided where time inconsistency arises very naturally in financial economics. Focus will be on more specific framework of a consumption saving problem with nonlinear saving technology where time inconsistency is due to a time varying discount rate (hyperbolic discount). Assuming that the consumer is aware of the time inconsistency problem, an equilibrium will be constructed based on the idea of a continuum of consumers. In this context, the strategic response to time inconsistency can be described with an integrated equation representing an extension of the Hamilton-Jacobi-Belman equation with a non-local term. For special specification of the discount function, the equation reduces to a couple of ordinary differential equations. The integrated equation takes essentially the same form when the production technology is stochastic.

The presentation is based on joint work with Ivar Ekeland.