



Host: Steven William Kivinen PhD

INVITATION

Prof. James Bergin
(Maynooth University)

On the topic:

"Optimal Mechanisms with Non-Separable Preferences"

This paper considers the classic mechanism design problem – maximizing an objective subject to a system of incentive compatibility constraints. This problem has been studied extensively in the case of quasilinear preferences, but the general case has received little attention in the mechanism design literature. The purpose of this paper is to provide a study of the general case.

The paper separately studies the properties of the incentive structure and the implied incentive compatible variations, then evaluating these relative to an arbitrary objective function. This provides a new perspective on the optimization problem, in particular highlighting the separation of objective and incentive constraints. The case of bunching (where a set of types receive the same allocation) is considered directly with the characterization on bunching given in terms of a 'marginal-revenue marginal cost' comparison rather than an 'ironing' condition. This has two advantages. First, it's not clear how to define ironing in the non-separable case; and second, the marginal revenue-cost comparison is natural. One special case of this model is where preferences are separable, but not quasilinear – for example, where individuals are risk averse. This case is considered and a closed form solution obtained for a few special cases. Finally, for the general case, a simple numerical optimization routine is given to determine an approximate solution (and exact solution if the state set is finite).

Date: May 2, 2023

Starting time: 5.15 p.m.

Location: HS 111.21/Beethovenstraße 8/2

All professors, lecturers, assistants and students are cordially invited to this lecture!