This course is a part of the IO sequence and it follows RES EC 732 in the graduate level introduction to empirical industrial organization. The emphasis is heavily on recent, cutting-edge research papers. The aim is to provide the tools necessary to write a solid dissertation in empirical industrial organization, and the hope is that the techniques in this class will be useful to students from other fields.

The course has some difficult econometrics, and it is expected that students have a basic comfort level with estimation. It is also expected that students will do requisite background reading in econometric theory where necessary. There is no primary textbook for this class. We will be using a combination of lecture notes and journal articles. All of the articles below are easily accessible from the web. Problem sets will be assigned after each topic to ensure that students have familiarity with coding and computational issues.

Topics to be covered would include:

1. Demand Estimation
   - Endogeneity issues, absence of individual level data, Logit models
   - Random coefficient logit model (BLP models)
   - Extensions of BLP models: Endogenous product choice, pure characteristics model, Computational issues

2. Estimation of entry games (Static Entry Models)
   - Complete and incomplete information entry game
   - Multiplicity of equilibria and econometric challenges
   - Introduction to advanced techniques (a brief introduction to moment inequality and partial identification)

3. Dynamics
   - Single agent dynamics
   - Dynamic discrete choice and Dynamic games

4. Other Topics (Depending on time): Vertical issues, exclusive dealings, Antitrust issues; Productivity; Auctions; Bargaining
Reading List

1 Demand

Required Readings


Additional Readings (alphabetical order)


- Dan Akerberg (2003), “Advertising, Learning and Consumer Choice in Experience Good Markets: A Structural Empirical Examination,” *International Economic Review*, Vol 44 (3). (This paper is one of the most under-appreciated papers and should have appeared in a much better journal)


• Aviv Nevo (2000), “A Practitioner’s Guide to Estimation of Random Coefficients Logit Models of Demand,” *Journal of Economics & Management Strategy*, 9(4), 513-548. Nevo’s website also posts the related MATLAB code. Note: there is a (famous) minor error in the calculation of the Jacobian matrix that has been widely recognized. It is possible that the current code posted on Nevo’s website has already been corrected.


**Methodological Readings: SMM**


2 **Entry and Static Games**

**Required Readings**


Additional Readings


• Katherine Ho: “Insurer-Provider Networks in the Medical Care Market”, AER 2008.


Methodological Readings


3 Dynamic Models

Required Readings


Methodological Readings


Additional References

4 Merger and Competition Policy

Required Readings

- “2010 United States Horizontal Merger Guidelines”
- “Antitrust Evaluation of Horizontal Mergers” by Joseph Farrell and Carl Shapiro