

Economics 577  
**Topics in Semiparametric Econometrics**

This course is a research seminar in semiparametric methods in econometrics. The main objective of the course from a student viewpoint should be to write a research paper of potentially publishable quality, either as an exploratory venture directed toward finding a thesis topic, or as an opportunity to explore a new area in some depth just for the fun of it. There will be no exams only a required term paper,

The course will be organized as an informal reading seminar. In the first several weeks I plan to work through Devroye and Lugosi (2000). This will provide a serious introduction to modern empirical process asymptotics for nonparametric methods.

There will be periodic student presentations of course material. The topics covered later in the course can be tailored somewhat to student demand. There are a few topics in which I have a current research interest, and for which I think there might be some scope for constructive interaction in a course of this type. I will try to encourage toward these topics in an effort to increase effective collaboration among students in the course. Not surprisingly, some of these topics have some connection to quantile regression, although in some cases this connection is rather speculative. However, initially the focus as in Devroye and Lugosi (2000) will be on density estimation. In keeping with my recent interest in regularization, I hope to spend part of the middle of the course on penalized maximum likelihood methods for density estimation.

References

Devroye, L. and G. Lugosi, (2000) *Combinatorial Methods in Density Estimation*, Springer.