EC828: Econometric Theory II  
Spring 2010, Boston College

Professor: Karim Chalak  
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Office hours: TTH 10:30 – 11:30am or by appointment, 21 Campanella Way, office 469.

Class: TTH, 9 – 10:15am, 21 Campanella Way, 480P.

Prerequisites: EC 827 or equivalent. Students are assumed to have training in calculus, probability, statistics, matrix algebra, and linear regression analysis.

Textbooks:

Asymptotic Theory:


Parametric Methods:


Nonparametric Methods:


Grading: Midterm (45%), Final (55%).

Academic Integrity: It is your responsibility to familiarize yourself with the university’s policy on academic integrity: www.bc.edu/integrity.

Course Outline*:

1– Identification in structural systems

1a– Structural equations and regressions

1b– Linear systems:

1c– Nonparametric nonseparable systems:


(†) Schennach, S. M., H. White, and K. Chalak, “Local Indirect Least Squares and Average Marginal Effects in Nonseparable Structural Systems,” BC Department of Economics Discussion Paper. (See also references cited in these papers.)

2– Asymptotic theory for independent observations with application to the linear model

2a– The linear model (HW, chapter 1)

2b– Consistency (HW, chapter 2)

2c– Laws of large numbers (HW, chapter 3)

2d– Asymptotic normality (HW, chapter 4)

2e– Central limit theory (HW, chapter 5)

3– Parametric methods

3a– M-Estimation (JW, chapter 12)

3b– Maximum likelihood methods (JW, chapter 13)

3c– Generalized method of moments and minimum distance estimation (JW, chapter 14)

4– Nonparametric kernel methods

4a– Density estimation (LR chapter 1; PU chapter 2)

4b– Regression (LR chapter 2; PU chapter 3)

5– (†) Examples of semiparametric models (LR chapters 7, 8, 10)

* The course outline is tentative and subject to change.
† If time permits.