Econ 7720
Spring 2024

IV. Nonlinear Models: Method of Moments

Readings:
- G: 12-13, 19.2, 25, 29
- M, Chapter 13 (pp.259-266 -binary choice, random utility model)
- H: Chapter 3: 198-216; Chapter 7: 445-487; Chapter 8: 507-526.

A. Introduction [G: 13.3; H: 3.3-3.4, 7.1 (skim)]
   ii. Moment Extremum
   iii. Moment Equations
B. MLE [G: 12, H: 7.1 (skim)]
   i. Introduction
   ii. MLE/ZES Analogy
      - Identification
      - Estimation
C. Econometric Response Models (G: 13.4 and 29, M: Chapter 5; H: 8.1-8.3)
   i. Introduction: General Response Model
   ii. Binary Response
      - Random Utility Model
      - Probit Model
      - Estimation
   iv. Probit Model
      - Estimation
      - Interpretation
      - Marginal Effects
      - Inference (delta method)
   v. Censored Response / Tobit

D. Limiting Distribution [G: 19.2, 29.4, 29.5, 12.4; H: 3, 7 and 8]
   i.J=k: Linear & Nonlinear Models
   ii. J >K: linear Models
   vi. Choosing $\Delta$
   vii. MLE
   viii. Estimation of Variance Matrix
   ix. Examples [G: 19.2]