Microeconometrics & MATLAB

An Introduction

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MICRO ECONOMETRICS

- Microdata
- Test & Estimate Economic Models
- Causal Statements
Three Lies

1. The World is Normal
2. The World is Linear
3. The World is Binary
The World is **Not** Normal!
Heavy Tails

Multi-Modal
The World is **Not** Linear!
How MATLAB Can Help?

Let the data “speak for itself”
Flexible tools for implementing "NonParametric" Techniques

Often based on the idea of local smoothing (Kernel regression) or on approximation using complex combinations of simple functions (Series & Splines)
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3.

The World is **NOT** binary!
The Red Bus – Blue Bus Example

“As an empirical model of choice behaviour ... [the MNL] is unsatisfactorily restrictive” McFadden (Nobel Lecture, 2000)
Simulation-Based Estimation

Fit models that allow for flexible substitution patterns using simulation based estimation (Maximum Simulated Likelihood & Simulated Method of Moments).

Used for fitting range of complex models without closed-form solutions.
Credits

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