

**Homework 5. Due Wednesday October 7.**

1. Simulate and estimate an ordered probit model using the posted Matlab code.
2. Use the posted Matlab code to simulate and estimate an exponential duration model. Truncate the outcomes at  $T=50$  and estimate the exponential duration model with incomplete spells.
3. Assume you have a duration model with hazard  $\alpha x_i^2$ . You observe a panel of individuals for time  $t = 1, \dots, T$ . Explain how you could estimate the duration model using logit estimation. (I didn't cover this, so see if you can figure it out.)