

**Homework 9. Due Monday November 3.**

1. Take some data and estimate a model with two regressors and an interaction term. You can simulate the data or use real data (maybe you all use the same). If you simulated make the regressors correlated and see what happens if you leave out the main terms, if you demean before interacting (or not). And see how the results change if you include squared terms (try when the true model has squared terms and no interaction and vice versa).
2. Simulate two independent random walks and regress them on each other. Do it like 100 times or more. What are the average t-values and R-squares? Do they get closer to the “true” values of zero as you increase the sample length?