

**Homework 2. Due Wednesday September 5.**

1. Extending the program we used for Homework 11 in Econometrics II, simulate and estimate an AR(2)-model.

- Extend the program to simulate a clearly stationary AR(2) model (e.g., AR-parameters 0.5 and 0.2).
- Estimate the model by OLS (Cochrane-Orcott) by conditioning on the first two observations.
- Estimate an AR(2) model by maximum likelihood. (Here you need to find the unconditional distribution of the first two observations and code it.)
- Repeat the exercise for parameters that are near the non-stationary region (e.g., AR-parameters 0.5 and 0.48).

4. Davidson and MacKinnon 11.7.

5. Davidson and MacKinnon 11.8.