

# Lecture 7

## Assignment

1. Consider a random sample  $X_1, X_2, \dots, X_n \sim Unif(0, \theta)$ .
  - (i) Find the estimator for  $\theta$  through MoM, denoted by  $\hat{\theta}_{MM}$ .
  - (ii) Find the MLE  $\hat{\theta}_{MLE}$ .
  - (iii) What are the expectation and variance of  $\hat{\theta}_{MM}$  and  $\hat{\theta}_{MLE}$ ? Which estimator is better?