Homework Assignment 3
Due on Tuesday 4/1

Programming Problems:

1. Do Exercise 10.2(a) and (b).

Submit your codes through iLMS.

2. Selecting "Hilbert matrix" tests your codes in 1. Use 100×100 Hilbert matrix as input to compute QR factorization by codes in 1. Compute the corresponding error $\|Q^*Q - I\|_F$ for orthogonality.

Writing Problems:

Do the following exercise problems in the text book by Trefethen and Bau,

Exercise 10: 10.1, 10.3, 10.4(b,c)

Exercise 11: 11.1, 11.3

Exercise 12: 12.1, 12.3

Exercise 14: 14.1, 14.2

Exercise 15: 15.1