

229B: Numerical Methods in Linear Algebra

Homework 2: due Friday 02/04/00

Problem 1: Solve Exercise 35.5

Problem 2: Implement a simple version of GMRES (Algorithm 35.1 in the textbook) in matlab. Solve the problem of Example 35.1 and reproduce Figure 35.3. Also, measure the computational time for each iteration.

Problem 3: Using matlab's `gmres` function, repeat the same experiment as Problem 2. Measure the computational time too. What are the difference between your implementation and matlab production code? Explain what makes the difference if any.

Problem 4: Solve Exercise 36.3

Problem 5: Solve Exercise 37.4