

CSCI-GA.2420-001/MATH-GA.2010-001
Numerical Methods I Fall 2013
September 5, 2013

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Homework set 1: Due September 20 at 12 noon.

Homework should be given to me (or my possible replacement) in class or put under my office door. Do not put it in my mail box.

Paper and pencil problems on Part I of Trefethen – Bau. Feel free to use Matlab to support or check your work:

1. Problems 1.3 and 1.4 of the T/B book.
2. Problems 2.3, 2.4, and 2.6 of the T/B book.
3. Problems 3.3 and 3.5 of the T/B book.
4. Problems 4.1 and 4.4 of the T/B book.
5. Problems 5.3 and 5.4 of the T/B book.
6. Theorem 4.1 states a result on the uniqueness of the singular vectors for singular values which are not repeated. Give an alternative proof of this result by using Theorem 5.4.