

Numerical Linear Algebra Assignment 15

Exercise 1. (10 points)

Prove Theorem 2 of Lecture 15.

Exercise 2. (TreBau Exercise 36.1, 10 points)

Compulsory requirement for programming: Use Matlab's `publish` to save all your code, comments, and results to a PDF file. You must use the programming format files: `example_format.zip`.

Programming 1. (TreBau Exercise 36.3, 10 points)

Programming 2. (10 points))

Write matlab codes to implement the implicitly restarted Arnoldi algorithm with exact shifts in Lecture 15. Design a numerical experiment to compare your codes with MATLAB's `eigs`.