

Worksheet 14

Objectives: (1) Understand derivation and behavior of QR iteration (2) Use Arnoldi iteration to construct a similarity transform to upper Hessenberg form (3) Know what Ritz values are

Problem 1: Orthogonal/QR iteration

(a) Name a suitable criterion for convergence of Orthogonal Iteration.

(b) The iterates X_k in Orthogonal iteration converge to...

(c) $Q^T A Q$ in Orthogonal Iteration converges to...

(d) Name a suitable criterion for convergence of QR Iteration.