Linear Systems

Math 214 Spring 2007 Fowler 307 MWF 2:30pm - 3:25pm

 http://faculty.oxy.edu/ron/math/214/07/

Week 11

Monday April 9 *Class 28*:

Gram-Schmidt Orthogonalization, QR Factorization, QDQ^T Factorization. We shall learn about the famous Gram-Schmidt process to generate an orthonormal basis for a vector space.

Reading:

Poole, Section 5.3

Homework #26: (due in *Class 29*)

Poole, Section 5.3 : 1,**2,3**,4,**6,11,13**, 17. EXTRA CREDIT 18.

QUIZ #9 DUE

Wednesday April 11 *Class 29*:

Projection Matrices and The Spectral Theorem. We shall learn some cool applications of orthogonalization.

Reading:

Poole, Section 5.4

Homework #27: (due in *Class 30*)

Poole, Section 5.4: 1,6,7,8,9,**11,12**,13,14,**22,23**. EXTRA CREDIT 25.

Friday April 13 *Class 30*:

Least Squares Approximation. We will learn what you do when $A\vec{x} = \vec{b}$ does not have a unique solution, but one wants to get"the next best thing."

Reading:

Poole, Section 7.1,7.2,7.3

Homework #28: (due in *Class 32*)

Poole, Section 7.3 : **1, 4, 9, 25, 36**. EXTRA CREDIT 56.

QUIZ #10