
Linear Systems

Math 214 Spring 2006
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Fowler 307 MWF 2:30pm - 3:25pm
<http://faculty.oxy.edu/ron/math/214/06/>

Week 13

Monday April 24 *Class 31:*

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.

Wednesday April 26 *Class 32:*

Singular Value Decomposition. We will look at one of the most important matrix factorizations, $A = PDQ^T$ where P and Q are orthogonal and D is “diagonal-ish” (block diagonal).

Reading:

Poole, Section 7.4

Homework #29: (due in *Class 33*)

Poole, Section 7.4: 2, **5, 6, 7, 13, 45,** 46, 47.

Friday April 28 : *Class 33*

Course Wrap-Up. Wrapping-up the course (The **final version** of The Fundamental Theorem of Invertible Matrices!) and the beginning of Project Presentations! Project Presentations will continue on May 1 and May 3 and there is no class on May 4.