Lecture 8

Goals
To understand how the LU factorization records the steps of Gaussian Elimination.
And to see why we need pivoting in Gaussian Elimination (or LU).

Logistics
* Office hours at 3:30pm
* Don’t have time to go over the fully optimized QR factorization (the zen code). I posted a video from 2014, where I go over this, see the last few minutes.
* Distance students & Saunders
* Help me remember the magic numbers :)

Quiz

The Idea
LU decamp: the idea notion
We keep going!

Problem: this uses... why p, tp=I?
The Exchange, 1
Pwhedlol

\[ A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix} \]

Write or try

Lawmaker
A: nxn casino.
E: A = \begin{bmatrix} 1 & 2 \\ 3 & 4 \end{bmatrix}
P = E + \begin{bmatrix} 0 & 0 \\ 0 & 0 \end{bmatrix}
E = \begin{bmatrix} 1 & 0 \\ 0 & 1 \end{bmatrix}

...