- Notation
- What is a matrix
- Matrix structure
  - Toeplitz
  - Hankel
  - Sparse
  - Symm pos def
  - Orthogonal
  - M matrix
  - Triangular
  - Hessenberg
- Coordinate format
- CSC & CSR Sparse formats
- Neumann series
- Richardson method
- Richardson for SPD
- Norms
- Convex functions
- Steepest Descent
- Gauss-Seidel
- Jacobi
- Gauss-Seidel = Coordinate Descent
- Power method
- Eigenvalues
- Variable Elimination = LU
- LU with pivoting
- Variable elimination for least squares
- QR
- Givens

Questions

How many problems?

What forms? (Choice, Proof, Computation?)

Eigenvalues with two equivalent magnitudes

What happens to y0_1 and y0_2 ?