FINAL PROJECT IDEAS: MATH 591

Key Dates:

- Tuesday, April 5: Project proposal due (1 page maximum).
- Thursday, April 21: Project outline due (5 pages maximum).
- Friday, May 13: Final project due (15 pages maximum).

Some topic areas to consider include application of numerical linear algebra techniques to:

- Data Analysis,
- Signal Processing,
- Computer Graphics,
- Data Assimilation,
- Page rank, google, netflix, etc.,
- Music,
- Bifurcation Theory,
- Stability Theory (Eigenvalues/Lyapunov exponents),
- Indirect methods for solving linear systems of equations.

Requirements: The final project should result in a short paper (maximum 15 pages) that includes background on the topic you consider, a description, analysis, and results of the numerical method(s) you use/develop. You may consider different methods and compare them, numerically investigate solution behavior as a function of a parameter in your problem.

You may use previously developed software, e.g. codes in matlab, codes at www.netlib.org, but you should show sufficient knowledge in your paper/report of the software you employ.