Homework 6
APPM 4720/5720 Spring 2019
Randomized Algorithms

Due date: Friday, Feb 22 2019

Theme: Reading   Instructor: Stephen Becker

Instructions   Collaboration with your fellow students is allowed and in fact recommended, although direct copying is not allowed. Please write down the names of the students that you worked with. The internet is allowed for basic tasks only, not for directly looking for solutions.

An arbitrary subset of these questions will be graded.

Problem 1:   [READING] Read sections 1 ("Overview") and 2 ("Related Work and Historical Context") from "Finding structure with randomness: Stochastic algorithms for constructing approximate matrix decompositions" by Halko, Martinsson and Tropp (SIAM Review 2011) available at http://users.cms.caltech.edu/~jtropp/papers/HMT11-Finding-Structure-SIREV.pdf

Deliverable: Write at least 1 paragraph about your response to the reading, e.g., what did you find interesting? Or, according to the authors, when did randomized methods start to have an impact on numerical linear algebra? What do the authors claim is responsible for some of the resistance in adopting randomized techniques?