CS 809
Fall 2018
Reserve Books

The following books will be placed on reserve at Kleene Mathematics Library.

1. P. W. Purdom and C. A. Brown, The Analysis of Algorithms, Holt, Rinehart, and Winston, 1985.

   Excellent introduction to the use of discrete mathematics in algorithm analysis. Covers mostly elementary techniques (e.g. no complex variables).

2. Greene and Knuth, Mathematics for the Analysis of Algorithms, 3rd edn., Birkhauser, 1990.

   Lecture notes from a course given at Stanford in the 1980's. Very terse, but picks up mathematically where Purdom and Brown leave off.

3. M. Habib, C. McDiarmid, J. Ramirez-Alfonsin, and B. Reed (eds.), Probabilistic Methods for Algorithmic Discrete Mathematics, Springer-Verlag 1998.

   Collection of survey articles, covering the Erdos probabilistic method, average-case algorithm analysis, randomized algorithms, Markov Chain Monte Carlo, percolation, concentration inequalities, and branching processes.