CS 4220 / MATH 4260: Homework 5

Instructor: Anil Damle
Due: May 6, 2019

Policies

You may discuss this homework freely with other students as you develop your question and I encourage you to do so. However, you must ultimately turn in your own problem. In addition, In addition, please do not knowingly use problems directly from the textbook, though you may look at them for ideas of where to start. Your solution, including plots and necessary output from your code should be typeset and submitted via the CMS as a pdf file. Additionally, please submit any code written for the assignment via the CMS as well. This can be done by either including it in your solution as an appendix, or uploading it as a zip file via the CMS.

The purpose of this HW is to provide an avenue for you to synthesize what you have learned over the course of this class. (As a complete aside, this nicely fits into Bloom's taxonomy.) This is a bit of an experiment, and will be graded as such. We are looking for viability of the question and correctness of your solution, and will not be so concerned with an assessment of if they are good questions. These questions will not be directly used on the final exam (barring some sort of unexpected event in which you happen to independently write a question we already plan to use on the final).

Question 1:

Write a viable homework question for this course (it may pertain to anything we have covered). Your question must contain three parts, a theoretical component, a code component, and a plotting/illustration component. If you wish you can instead write two questions, one theoretical and one with implementation and illustration. In addition, write a solution (including code) for your problem(s).