MATH 551: Course Project

As stated in the course outline, a final written project (20 page maximum), based on a reading of a current research topic, will be due on April 30th at 12:00 noon. Students are to make a short 12 to 15 minute in class presentation of their project in April. We will try to hold the class meeting on Monday April 29th. There are 8 registered students and so this would be a maximum two hour session to make up for the missed week of class.

The structure of the paper is flexible but should include the following elements:

• An introduction that states the aims (modeling and analysis) of the paper you have chosen. In this discussion, please consult a few secondary sources so that you understand the origin of the problem and why it is interesting to study.

• some sections where you carefully reproduce some of the analysis in the paper, filling in all the (usual) missing steps in the derivation. You do not need to do every section of the paper, but it is really important to understand what you are writing and not simply copying down what the author wrote. In the derivations, you may need to re-familiarize yourself with a few math techniques etc., and consult whatever secondary sources are needed.

• If you can, have a few visual aids. Either schematic drawings or reproducing some numerical plots in the paper using Matlab would be great.

• The paper should conclude with a discussion section that has two aims. First, briefly summarize the findings and what is left often from the analysis. Secondly, add some brief discussion of what you liked and didn’t like with the paper. Consider questions such as: Was it too terse? Was it well-motivated and explained well? Are large parts of it unreadable due to large gaps in the analysis? Did you find any serious errors or omissions?

• Have a bibliography with more than just the paper itself.

For the presentation, all that is required is to make 5 slides to briefly summarize your paper and to be able to talk about it to a diverse audience of your peers to explain the main concepts.