MTH 448/563 Report Guidelines

Format

You will use the Jupyter Notebook format for your reports. You will upload your ".ipynb" file to UBLearns.

Description

Every report you write this semester should be a well-constructed well-written document containing text and code, and often tables and/or figures. Points will be deducted for sloppiness of any kind, including ungrammatical sentences, incorrect spelling, or inconsistent formatting.

The report should be structured under a logical set of headings (and possibly subheadings).

The first should always be an **Introduction** to the topic. This should provide the background to the topic and in broad terms what you are trying to do. From this, the reader should understand what it's about and be motivated to read the body of the report. Some students may want to summarize very briefly here what was accomplished; others may prefer to keep that a "secret" until later in the report.

The **Introduction** should be followed by one or more sections whose headings may be specific to the topic. For example, here are the headings of an article in the current issue of Phys. Rev. A.

Other mandatory sections are a **Conclusions** section where you will summarize and reflect on what you have discovered or accomplished, and a **References** section where all sources should be properly cited.

Furthermore, since reproducibility is essential in all scientific and mathematical endeavors, I want to be able to run your code to verify that it does what you claim. Your code must therefore appear somewhere in the report in a form that can be simply run - without further editing. If you choose to present your code in the body of your report as short fragments interspersed by explanatory text, that is fine (in fact, I quite like this style of presentation), but then you should also include it as a single <u>runnable</u> cell, or a small number of contiguous cells, in an Appendix called "**Code**" at the end.

Aside from the mandatory sections discussed above, I am perfectly happy for you to try your own ideas for arranging the body of the report, and I will give you prompt feedback on whether I find your structure effective or on how I think it could be improved. I will say in advance, however, that I do not like structures that force the reader to flip back and forth repeatedly between widely separated parts of the report: I much prefer a report that can be read and appreciated linearly from start to finish.

Target reader: the reader you should have in mind as you write is a smart classmate who missed class when the current topic was introduced, explored and discussed.