

MARS 5370/4370  
Introduction to Scientific Computing Spring 2021  
Final research paper

## Assignment

The goal of this assignment is for you to practice writing up your research in the standard scientific format. Your report can be up to 10 pages, including figures, formatted in LaTeX/Overleaf or Word. It should take the form of a scientific article with the following sections: Abstract, Introduction, Methods, Results, Discussion, Bibliography. Your bibliography should have about 3-10 references, cited using Zotero or other bibliography manager. At least 2-5 figures or tables are required. Provide a cleaned-up sample code in an appendix or supplement.

The target audience for this paper is your fellow students. Think of future students of this class reading your report for inspiration and guidance.

Focus on briefly writing up your methods, clear presentation of your results, and discuss what these results mean. Your introduction should be succinct, and just enough to contextualize your study and set up your discussion, which should include conclusions. You might discuss coding pitfalls you encountered briefly. In general, practice using concise scientific language, minimizing the number of words needed to convey your meaning. Writing a shorter paper that is clear, to the point, and easy to read is much better than a longer, rambling one. Be kind to your reader.

**Papers should be loaded into github and named final\_report\_yourname.pdf.** Please do not turn in your work in any other format.

As per the syllabus, satisfactory completion of this paper is required to pass the class.

## Assignment Checklist

Name of Student:

1. Has abstract
2. Has bibliography
3. Has introduction that is not too long
4. Has at least 2-5 figures and/or tables
5. Methods are explained clearly and succinctly
6. Results are explained clearly and succinctly with supporting figures/tables
7. Discussion exists and makes sense
8. Amount of work done is appropriate
9. Writing is reasonably decent: complete sentences, no missing words
10. Has cleaned up example code

Notes: