

# The Title Goes Here

by the author

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## **Abstract**

The Abstract goes here. This should be 100-200 words. The abstract of your Final Report is the problem, model, methods, and results in a nutshell (a small nutshell; think pistachio rather than walnut). This is quite possibly the most important part of the report! Although this is the first part of the report, it is best when written last.

# 1 Problem Statement

State the problem you wish to solve. No, this is NOT a regurgitation of the project options. Restate, in your own words, what question is asked, why it is asked, and why it is important. If at all possible, include a picture or diagram of what you wish to accomplish or address. All pictures or diagrams must be discussed in the text.

# 2 Model Design

Describe the mathematics, physics, implementation, etc. of your model. This should be the general equations and notions, not the detailed calculations. Include a picture or diagram if appropriate. Don't just include any picture though, it must be relevant to the model and spend some time discussing it.

# 3 Implementation and Details of Analysis

This is the nitty gritty of your work. Here you should include some details of your calculations or a pseudo code if applicable. Remember, science (and yes, mathematics is a science) should be reproducible. You needn't include every trivial detail, but imagine you are explaining this to someone who will be taking this course next quarter. A reasonable person should be able to reproduce your work from your Final Report and your references.

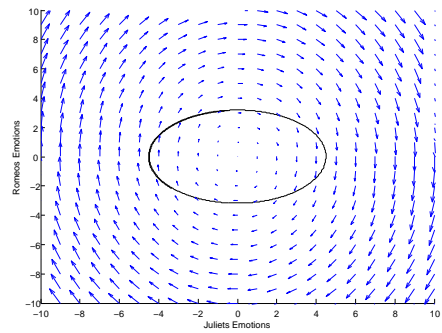
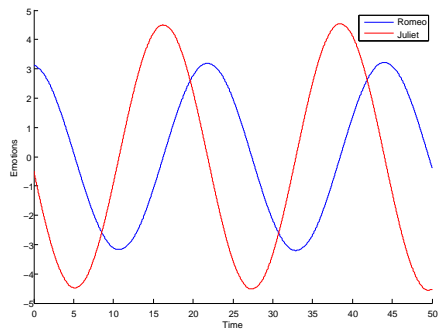


Figure 1: Sample figures

## 4 Discussion and Results

Discuss your results and relate them back to the problem statement. Here you can discuss any weaknesses of your model (note: if you discuss weaknesses, also discuss how you might address them in the future!). However, do not be too negative. Talk about what you have discovered and what you have learned. Here you can also make recommendations for further testing of your model.

## 5 Conclusion

Sum up and conclude. Tie up any loose ends and comment about the good parts of your solution/model. This should be a quick summary and a graceful exit.

## References

- [1] Little, C. (1900) The sky is falling. *Journal Name*. **Volume**, Issue, pgs.