The Melting Glaciers

Simon Lee

Audience: The audience of this paper are most likely going to be environmental scientists/engineers who are very adamant of solving the melting glaciers global crisis. Obviously this experiment doesn't take into account outside parameters like the sun, atmospheric temperature, etc. However this paper will help us understand how the melting within fluids can help environmental engineers delay these glaciers from melting.

1 Introduction

- Introduce the big picture of the melting glaciers and the impact it can have in the world
- Introduce the smaller scale experiments you wish to know
- Connect the idea that glaciers are freshwater cubes melting in highly concentrated salt water
- Propose a question and describe a basic representation of the model without going in depth about it

2 Methods

- introduce the model and the experiments that you expect to run
- present hypothesis and predictions of the model

2.1 Model

- Describe the relevant background of physics of melting, Rayleigh's theorem, and the mathematical model (Write out all equations for background and model)
- Define all variables, which are constant, which are input parameters
- Describe what the model is testing and what input parameters will be manipulated (salt water density)

3 Results

- Present (figures, tables) of experimental data (graphs comparing salt water density and glacier melt time)
- Describe how the mathematical model compared to the actual experiments ran and see if it was accurate (analysis of graphs)
- compare your hypothesis to results
- talk about unexpected results if any
- make a summarization of your findings based on your results

4 Discussion

- based off your findings, look at the grand problem with the glaciers
- See if you can make any inferences based off your data about the potential global issues with glaciers
- assess if model was good overall to the problem being answered

5 Conclusion

- state concluding thoughts. Talk potentially about what next for the discussion of glaciers