

# Math Methods Challenge Problem Presentations (winter 2021)

## Team Presentation Format and Content

Each team will have the floor for 20 min. Roughly, this should be divided into about 10-15 of formal presentation followed by 5-10 minutes of Q&A. E

1. What physics-engineering phenomenon are you investigating? Why is it interesting and important?
2. Concisely explain math concepts you used to develop solutions to the problem. Highlight concepts that should be familiar (covered in class) vs. those that are extensions or additions.
3. Briefly detail your main results. What did the math inform about the physical phenomenon?
4. Compare and contrast your math model to real life: What were successes and/or shortcomings of the math models you developed/explored? See specific problem statements for specific suggestions. Of course, feel free to use your best judgment and creativity here to remark upon interesting findings.

## Grading rubric

	Excellent	Good	Fair	Needs work	Missing/not addressed
<b>Problem/application succinctly summarized</b>					
<b>Math concepts involved clearly and concisely presented</b>					
<b>Clear connection between math and application to physical phenomena</b>					
<b>Appropriately targeted for the audience (math methods classmates; math-knowledgeable folk)</b>					
<b>Graphics and figures professionally polished and used effectively to visualize key math concepts</b>					

**Compared/contrasted results  
from math model to real  
world system**

**Team prepared to answer  
questions**

**Specific comments and feedback:**