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Lecture 12

Advanced Waves and Final Project Introduction

Python Concepts

- Introduction to more advanced simulation techniques (e.g., finite difference methods).
- Structuring a Python project (modules, documentation, testing).

Application

- Simulating wave propagation, reflection, and transmission in different media.
- Visualization: Animating wave motion and energy transfer.

Final Project Overview

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- Introduction to the final project, where students choose a physics problem to model and so
- Discussion of project expectations, timelines, and resources.
- Homework: Start working on the final project by selecting a topic and outlining the approa
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## Ideal Gas Simulation with Pressure, Gravity, and Collisions
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Use the sliders below to adjust the speed of the gas particles and the gravitational force a
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