

# Triorbiter



A Novel Approach to Solving the  
Three-Body Problem

# Team members

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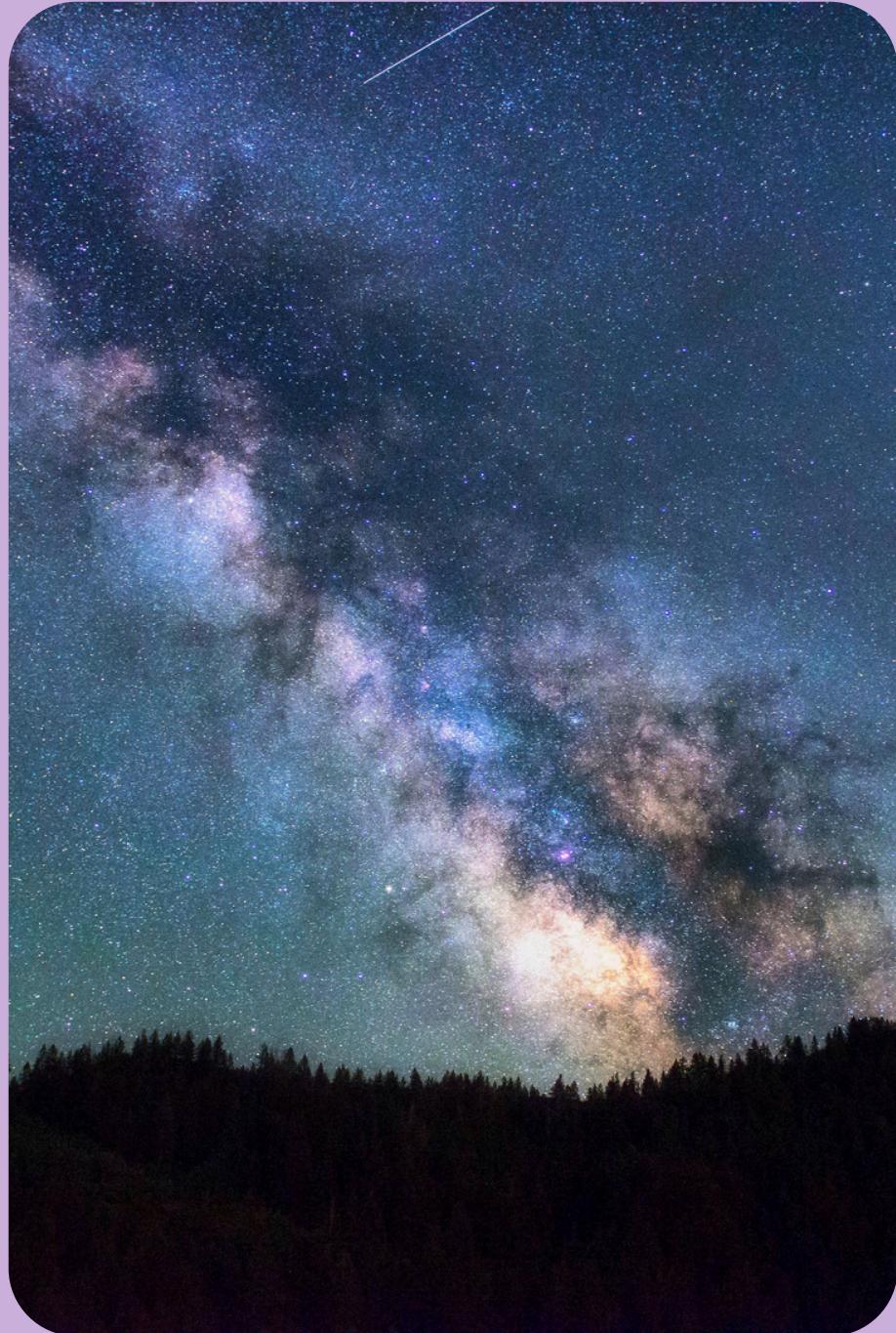
# What is the Three-Body Problem?

The Three-Body Problem in physics refers to the challenge of predicting the motion of three celestial bodies interacting with each other through gravity.



# Historical Context

The problem has been studied since the time of Isaac Newton. It is a generalization of the 2-body problem, which has an analytical solution (elliptical orbits as described by Kepler's laws)



# Challenges in Simulating the Three-Body Problem

- **Computational Difficulty:** The three-body problem is computationally intensive because it involves solving complex, non-linear differential equations that do not have a general analytical solution.
- **Existing Simulators:** Many current simulators may lack flexibility, customization options, or active community involvement, limiting their usability and adaptability for different scenarios.

# Project Idea

## Overview of the Simulator

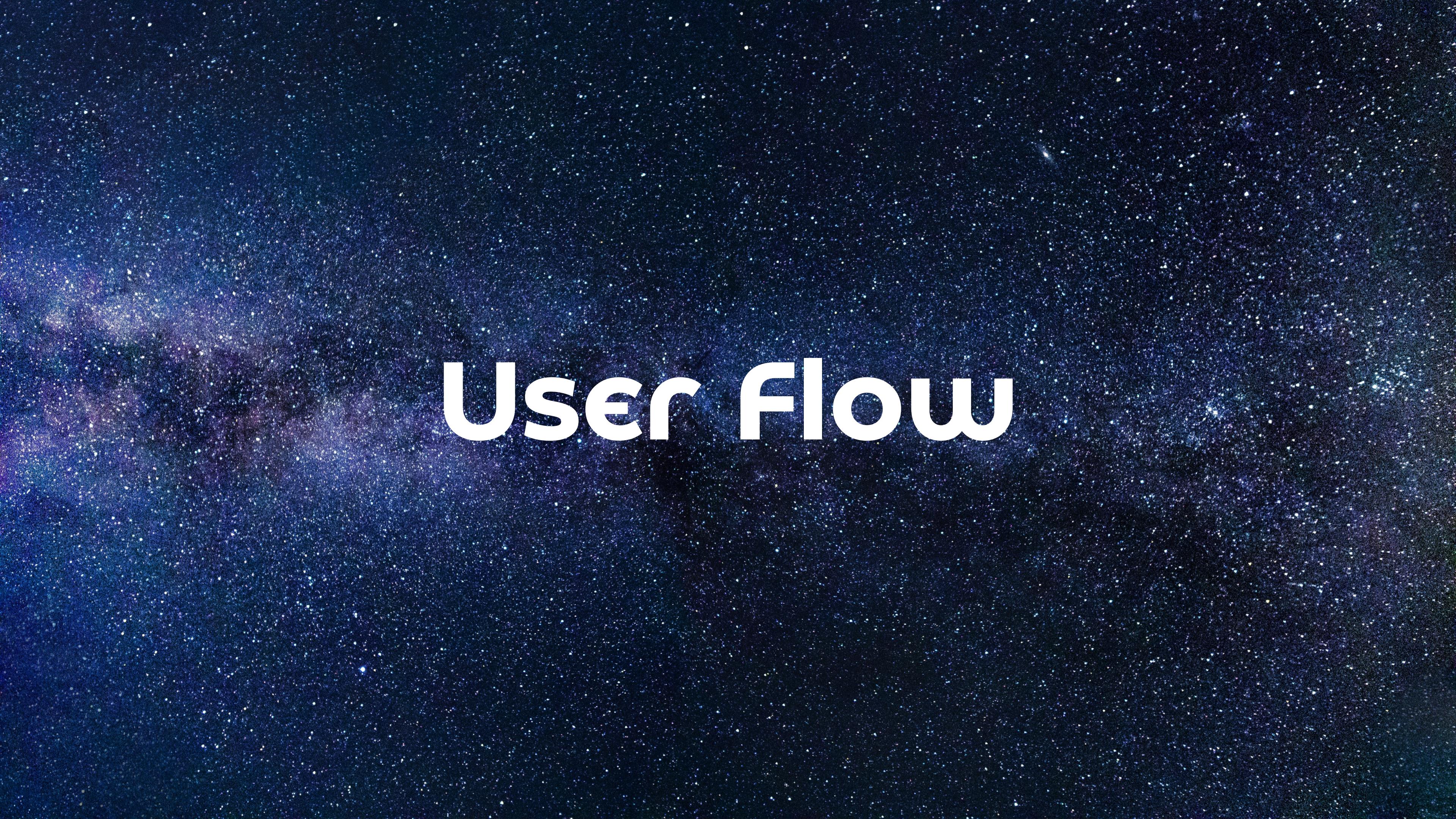
- **Customizable Input:** Users can input their own equations or simulations
- **Community-driven Ranking System:** Highlights the best simulations based on user feedback and performance.



# features

- User Interface: Easy-to-use interface for inputting equations and parameters.
- Ranking System: Users can vote on simulations, and the ranking system determines top simulations.
- Visualization: 3D visualizations help users understand simulation outcomes.





# User Flow

## Step-by-Step User Interaction:

- Input Simulations: Process for users to input their simulations.
- View and Vote: How users can view and vote on other simulations.





Potential Impact

- Community Involvement: Fostering a community of enthusiasts and experts.
- Educational Use: Potential for teaching complex physical systems.





Thank you  
very much!