# Computational Physics Project A Modelling Single & Double Pendulum Systems Computationally

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# 1 Introduction

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# 2 The Single Pendulum

- 2.1 System Setup & Parameters
- 2.2 Equations of Motion
- 2.3 A Computer Model for the Single Pendulum System
- 2.3.1 Euler's Method
- 2.3.2 The Leapfrog Method
- 2.3.3 4th Order Runge-Kutta Method

# 3 The Double Pendulum

- 3.1 System Setup & Parameters
- 3.2 Equations of Motion
- 3.3 A Computer Model for the Single Pendulum System