# Coupled Pendula Lab Report

J. Liang (z5261830)[1, 2]
[1] *Cohort B - Mon 9-12 class*
[2] *Word count: XXXX words*
(Dated: 23:48 Monday 5th July, 2021)

This report presents the observation and interpretations of the behaviour of coupled pendula.

## INTRODUCTION

The behaviour of harmonic oscillators has been a long time interest for mathematicians and physicists. In this lab, I am going to present my observation and interpretations of the two normal modes and one of their linear combination mode (beat mode) of such a system with experimental data.

## AIM

In this lab, the aim is to use the obtained data from the inphase oscillation, out of phase oscillation, and the beat mode, to quantitatively characterise the behaviours of coupled pendula system. Hence forward, establish a connection between this coupled system and its predecessor (a simple uncoupled pendulum) and its successor (many pendula all coupled together).

## METHOD

# Appendix

## Figures