MASSACHVSETTS INSTITVTE OF TECHNOLOGY
6.946J, 8.351J, 12.620J

Classical Mechanics: A Computational Approach

Problem Set 0—Fall 2020

Issued: 2 September 2020 Due: 4 September 2020

Reading: SICM2 Appendix: Scheme and Appendix: Notation

General Instructions

This "problem set" is to be done in the lab in the evening of the first day of class. We want you to learn the languages we are using this term. There is a modern mathematical notation that does not use Leibniz notation for derivatives, and there is a programming notation that is in one-to-one correspondence with the mathematical notation. There are two exercises that are relevant:

Exercises

- Exercise 9.1: Chain Rule. SICM2 page 523
- Exercise 9.2: Computing Derivatives. SICM2 page 523

Project 1 announcement

Your first project will be due on Friday, 25 September 2020. There will also be problem set 3 due on that date, but it will be shorter than usual. You should choose one of the following for the project:

- Exercise 1.43: A numerical investigation. SICM2 page 116
- Exercise 1.44: Double pendulum behavior. SICM2 page 117