Initial Conditions of Long Term simulations of the Solar System

Eric Yeung*

Department of Physical Sciences, University of Toronto, Toronto M1C 1A4, Canada (Dated: June 3, 2015)

The main research in PHYD01 explores the work done predominantly by J. Laskar and H. Rein. I use the IAS15 integrator [2]

from __future__ import division
import rebound
rebound.reset()
rebound.integrator = "ias15"

[1] Laskar, J., and M. Gastineau (2009), Nature 459, 817.

[3]

^[2] Rein, H., Spiegel, D.S., 2015. IAS15: a fast, adaptive, high-order integrator for gravitational dynamics, accurate to machine precision over a billion orbits. MNRAS 446, 14241437.1409.4779

 $^{^{*}}$ eric.yeung@mail.utoronto.ca