Working draft

Abstract

1 Introduction

2 The period to second order in the amplitude

Result 1 (Second-order coefficient of the period)**.** *For the simple pendulum at amplitude* θ_0*,*

$$T(\theta_0) = T_0\left(1 + \frac{\theta_0^2}{16} + O(\theta_0^4)\right), \qquad T_0 = 2\pi\sqrt{L/g}, \tag{1}$$

so $c_2 = 1/16$.[1] [CL-S1-1]

[1] Derivation D-S1-1 and the independent computation C-S1-2, each confirmed by a blind review.