

The Double Pendulum

Creating the Perfect Baseball Bat

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Scope

1 Introduction

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Chaos increases exponentially

$$\Delta x(t) \sim \Delta x(t_0) e^{\lambda t} \quad (1)$$

The Double Pendulum

Chaos is not as prevalent in a baseball swing, due to the swing only occurring in the first half cycle of a double pendulum

Can we design a "perfect" baseball bat?