Modeling Two Body Collisions with Spring Potential Interactions

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Abstract

This report describes a computational study of two body collisions where the dynamics of the bodies are governed by a Hooke's Law type force at the interaction points. We investigate a number of scenarios which involve a stationary target object which is contacted by a projectile object with some horizontal velocity in a two dimensional plane. Object trajectories are determined from a simulation software package, along with other various kinematic variables. Parameters governing the interactions and the kinematics are changed to study various trends in the kinematic variables for different scenarios.

YAR

this is cool.