A case study of frictional damping of a physical pendulum

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The harmonic motion is a prominent motion in nature. Pendulums are made for demonstrating harmonic oscillations and they are applied in various physical systems. Damping of a pendulum with time is due to frictional forces in nature. A case study was carried out to study of frictional damping of a physical pendulum. A mathematical model was developed. This paper describes the mathematical model, data taking methodology, and data analyzing in details. The results are in good agreement with the real data.

Keywords: frictional damping, mathematical model, physical pendulum

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