

CHAPTER OVERVIEW

42: Simple Harmonic Motion

The small-angle approximation of the simple plane pendulum is an example of what is called simple harmonic motion. Simple harmonic motion is the motion that a particle exhibits when under the influence of a force of the form given by Hooke's law (named for the 17th century English scientist Robert Hooke):

$$F = -kx. \quad (42.1)$$

[42.1: Introduction to Simple Harmonic Motion](#)

[42.2: Energy](#)

[42.3: Frequency and Period](#)

[42.4: The Vertical Spring](#)

[42.5: Mass on a Spring](#)

[42.6: More on the Spring Constant](#)

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