

1096-VG-1297 **Michael A. Karls*** (mkarls@bsu.edu), Department of Mathematical Sciences, Ball State University, Muncie, IN 47306. *Verifying the Hanging Chain Model.*

The wave equation with variable tension is a classic partial differential equation that can be used to describe the horizontal displacements of a vertical hanging chain with one end fixed and the other end free to move. Using a web camera and Tracker software to record displacement data from a vibrating hanging chain, we verify a modified version of the wave equation with variable tension that accounts for damping. (Received September 14, 2013)