

Simulated Damp Harmonic Oscillator

ZACHARY NOEL, Lee College — In contemporary physics labs, computational simulations are useful and effective tools that model physical systems where mathematic-conceptual relationships can be emphasized through the use of basic programming. However, there is a very pertinent matter concerning how accurate these simulations are in comparison to more traditional lab settings. I hope to use the example of a damped harmonic oscillator in order to illustrate the differences between simulated and real-world lab environments, and examine the relationship between the trusted axioms of physics concepts versus authentic physical situations.

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