

Abstract Submitted  
for the NWS14 Meeting of  
The American Physical Society

**Models for Teaching Modern Physics** ROBERT CLOSE, Clark College — The great nineteenth century physicist William Thomson (Lord Kelvin) judged his understanding of physical phenomena by whether or not he could construct a mechanical model. Although this attitude is no longer in vogue, mechanistic models can still be useful in teaching modern physics to students. We present mechanistic models or analogues of special relativity, atomic spectra, Dirac wave functions, quantum operators, electromagnetic potentials, antimatter, and gravity. Mechanistic models may help to build intuition for all students of physics, and may also serve as an introduction to the mathematics of modern physics.

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Date submitted: 21 Mar 2014

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