

Abstract Submitted
for the APR10 Meeting of
The American Physical Society

The Logic of Atomic Spectral Calculations in Atonic Mechanics

ALFRED PHILLIPS JR, Source Institute-Cornell University — We show that the mathematical method used in calculating atomic spectra in Atonic Mechanics is a variational technique. In atomic spectral calculations, for which special relativity need not be used, we treat spin in a phenomenological manner not unlike Pauli's model. The value of Atonic Mechanics is the ease of atomic spectral calculations, as previously demonstrated for helium (see Part Two on the web page sourceinstitute dot org). Atonic mechanics calculations had the same accuracy as that of the Schroedinger Theory but without the mathematical tedium. We proffer that a comparison be made of the accuracy, the clear physical model, and mathematical simplicity of Atonic Mechanics and Schroedinger Theory for atoms at least as complicated as lithium.

Alfred Phillips Jr
Source Institute-Cornell University

Date submitted: 21 Oct 2009

Electronic form version 1.4