Report on the Evaluation of Chapter 40 Retrospect: The Schrödinger Wave Function in Violation of Maxwell's Equations in "The Grand Unified Theory of Classical Physics" by Dr. Randell L. Mills

Prepared by

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Executive Summary

In my analysis, I verified calculations and equations involving the Schrödinger equation and Fourier transforms found in Chapter 40 of the book "The Grand Unified Theory of Classical Physics" (January 2020 edition) by Dr. Randell L. Mills. There is a remarkable agreement between the equations found in the chapter and the equations I get from my calculations. I verified that all the equations found in the chapter from 40.1 through 40.11 were in fact true.

Purpose

It is known that emission of electromagnetic radiation occurs if the spacetime Fourier transform contains waves that are synchronous with waves traveling at the speed of light. In Chapter 40, it is shown that the Schrödinger wave equation possesses such components and must radiate. The observation that no such radiation has ever been seen shows that the Schrödinger Equation is an inaccurate description of an electron.

The spacetime Fourier transform of $f(r) = r \exp\{-r/a_0\}$ is discussed. This leads to the complete spacetime Fourier transform of the Schrödinger wave equation. This transform has components that are not zero and so are synchronous with waves traveling at the speed of light. Hence, a charge-density function given by the Schrödinger Equation must radiate via Maxwell's Equations. Since no such electromagnetic radiation has ever been seen shows that the Schrödinger is an inaccurate description of an electron.

Calculations

I have verified that Equation 40.1 is correct.

I have also verified that Equations 40.3 - 40.11 are correct.

Conclusion

I was able to verify the results of Chapter 40 in excellent agreement with my own calculations and derivations of equations. I successfully reproduced all of the equations, derivations, and calculations found in Chapter 40.

I find my results and calculations to be confirmation that the derivations and equations of Chapter 40 are indeed valid, reproducible, and accurate.