Report on the Evaluation of the Preface and Introduction 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 Preface and Introduction 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 Introduction and the equations I get from my calculations. I verified that all the equations found in the Preface and Introduction from I.1 through I.168 were in fact true. The Introduction serves both as an introduction to the findings in the book and as a summary of them. It serves as an overview of the GUTCP theory and how GUTCP is more accurate in its predictions than Quantum Mechanics.

Purpose

The Introduction to the book starts off with discussions of the shortcomings in the theory of Quantum Mechanics (developed by Schrödinger and Born) – the failure to predict the fourth quantum number called spin, the failure to predict energy levels below the ground state in Hydrogen, and the failure to apply the theory to multi-electron atoms (except by resorting to the use of approximation methods), to name a few. Thus a more accurate and complete theory is needed. Dr. Mills has developed his GUTCP theory to accurately describe 85 orders of magnitude of phenomena from galaxies down to the microworld of the atom. It is based on Classical Physics, not on Quantum Mechanics. And it is more successful than Quantum Mechanics at describing a wide range of phenomena. The Introduction introduces how GUTCP and Quantum Mechanics differ, and describes the many various predictions of GUTCP that are now experimentally verified. One of the best sections in the Introduction was Box I.1 that compared the predictions and shortcomings of Quantum Mechanics with CP (the GUTCP theory). I also liked the bulleted list of physical concepts that arise from CP (Classical Physics), found on pages 43-45. I thought both sections were well-written and insightful.

I also enjoyed Table I.3 (Partial List of Physical Phenomena Solved by Classical Physics), Tables I.4 and I.5 (Partial List of Organic Functional Groups and Molecules Solved by Classical Physics), and Table I.6 (Partial List of Particle and Cosmological Phenomena Solved by Classical Physics). These tables show the wide-ranging applicability of CP to many phenomena in Nature. The GUTCP theory clears up problems that Quantum Mechanics has, plus it also predicts new phenomena that have now been experimentally verified. These include: GUTCP predicted the acceleration of the expansion of the universe, now observed since 2000. And GUTCP predicted the existence of hydrinos – low-lying states in Hydrogen that are non-radiative but that can release tremendous amounts of energy to certain catalysts. This hydrino discovery has given rise to a new energy source as well as new hydrino materials. And GUTCP may have uncovered the secret to dark matter – it may be made of hydrinos.

The mathematics behind these phenomena is alluded to in the Introduction, such as solving the one-electron atom, the solution to the bound electron, the existence of hydrino states, the instability of excited atomic states, force balance equations, and energy calculations. More mathematical detail on these subjects comes during the rest of the book, but the highlights of the GUTCP theory and some of its justifications can be found in the Introduction. The GUTCP theory can describe alpha decay, the masses of the leptons, the masses of the neutron and the proton, and properties of quarks and gluons – all by using closed form solutions and equations, a feat not achieved by Quantum Mechanics. One last amazing feat of CP over Quantum Mechanics is that GUTCP can describe the correct energy levels of multi-electron atoms, up through 20 electrons. This is a feat never achieved by Quantum Mechanics.

Calculations

I have verified that the value and unit of $c^{3}/4\pi G$ on page xxvi are correct.

I have also verified that Table I.1 is correct.

I have shown that Equations I.1-I.6 are correct.

I have shown that Equations I.8-I.18 are correct.

And I have verified that Equations I.19-I.24 are correct.

Next, I have verified that Equations I.26-I.30 are right.

And I have shown that Equations I.32-I.39 are correct as written.

Likewise, I have shown that Equations I.41-I.53 are correct.

Equations I.54-I.59 have been shown to be correct by me.

Equations I.60-I.65 have also been shown to be correct.

I have further shown that Equations I.67-I.74 are correct.

I have shown that Equations I.75-I.82 are correct as written.

And I have shown that Equations I.83-I.87, as well as Equations I.89-I.93 are correct.

I have shown that Equations I.94-I.95 and their values are all correct.

Equations I.96-I.97, Equations I.100-I.102, and Equation I.104 are correct.

Further, I have shown that Equations I.106-I.113 are correct as written.

Likewise, I have shown that Equations I.117-I.123 are correct.

I have also shown that Equations I.124-I.130 are indeed correct.

I have shown that Equations I.131-I.137 are right.

And I have shown that Equations I.138-I.145 are correctly written.

I have also verified that Table I.2 is correct.

I have shown that Equations I.146-I.155 are correctly written.

Equations I.156-I.162 are shown to be correct.

And I have shown that Equations I.163-I.168 are correct.

I have also verified that the equation of the radius of the universe, the calculated Hubble Constant, and the maximum energy release of the universe at the beginning of the expansion phase P_U , listed at the top of page 45, are correct based on the GUTCP theory.

Conclusion

I was able to verify the results of the Preface and the Introduction in excellent agreement with my own calculations and derivations of equations. I successfully reproduced all of the equations, derivations, and calculations found in the Preface and the Introduction, up through Equation I.168 (the last equation in the Introduction). This chapter concerned itself with an overview of the GUTCP theory and how it is more accurate in its predictions than Quantum Mechanics. It serves as both an introduction to the findings in the book and a summary of them.

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