

The Physics of Genesis



by Gordon L. Ziegler

About the cover: Autumn scene from The Watershed Park on Henderson Boulevard in Olympia, WA USA October 23 and 26, 2007, taken by an anonymous friend of the author. Design by the author, Gordon L. Ziegler. Autumn with falling leaves is a phenomenon after the fall of man, and is discussed in *Does God Really Love Us?* and this book by the author, using the science derived in *Electrino Physics by the author*.

*The
Physics
of
Genesis*

by Gordon L. Ziegler

The Physics of Genesis

© 2007 Gordon L. Ziegler

Last revised October 22, 2007.

Permission is granted to quote from this book,
to freely circulate its electronic files,
and even to make paper copies of the book,
provided the books are not sold,
but are given away free.

Unless otherwise noted,
all Scripture references are from the
King James Version (KJV) of the Bible.

Author:
Gordon L. Ziegler
P.O. Box 1162
Olympia, WA 98507-1162 USA
ben_ent100@msn.com

PREFACE

I wrote *Electrino Physics* with as few references to God and the Bible as possible, to be in the physics tradition, and so as not to offend physicists. But for many years I dreamed of writing a book named *The Physics of Genesis*. I longed to apply the origin relating calculations I was making in the Electrino Fusion Model of Elementary Particles to the scientific discussion of the origin concepts in the Bible book of Genesis.

For 24 years this book simmered in the back of my mind. But here it is!—a first draft of it.

The book starts with a brief summary of the model in *Electrino Physics*, but then shows from the calculations the omnipresence, the immortality, and the extreme wisdom of the One or Ones that originated and sustained and sustains the Universe. From other calculations I show the extreme improbability of the origin of the Universe in a Big Bang of pair production of particles. I show the truth of the Bible regarding the nature of the smallest particles. Things that the ancient Bible writers could not know and understand from the then current physical theory are revealed in the Bible—showing the Bible to be the inspired Word of God. “In the beginning God created the heaven and the earth” is now not myth, fable, legend, or falsehood—it is good science.

Genesis not only tells of the creation of the Universe and this earth, it tells of the fall of man and the great changes that brought to this earth. The discovery of how to reverse the order to disorder arrow in the second law of thermodynamics, related in *Electrino Physics*, sheds light on what apparently happened in the transition from pre-fall to post-fall earth, why God allowed the changes, and how God designs to reverse the damage, now, through science (see *Does God Really Love Us?* by myself).

This book concludes with the question, “How do you see it now?” The reader is invited to reflect on which model of physics best fits the needs of humanity.

Gordon L. Ziegler, October 21, 2007.

CONTENTS

Chapter	Page
Preface.....	3
Contents	5
1. Getting Started	7
2. The Sustainer	12
3. The Improbability of the Big Bang.....	15
4. The Creation Method.....	17
5. Things Which Do Not Appear.....	19
6. The Effects of the Fall	20
7. How Do You See It Now?.....	22

Chapter 1

GETTING STARTED

The year was 1957. The date was October 4. The Soviet Union surprised the United States and the west by being the first to put an artificial satellite into space—Sputnik. That event precipitated fear and panic in some parts of the world, like the Philippines. People thought Russia was more powerful than the United States, and they feared Russian domination and persecution.

American mathematicians and physicists also were alarmed at the American lag behind Russian technology and science. The mathematicians and physicists did their best to alleviate the situation by redesigning texts for students. They wanted them not to get bogged down in needless memorization. The educators wanted to give a coherent, but concise ordered summary of physics research, and to elicit imagination, intuition, and creativity in science research, so the students would make discoveries in science. The Physical Science Study Committee were authors of *PSSC Physics*, a high school physics text, which was the first physics text studied by this present author. The author had an exceedingly inspiring math and physics teacher, Robert R. Ludeman, at Upper Columbia Academy, near Spokane, Washington USA. The author's brain was filled with the centuries-long contest between wave and particle in the nature of light, and the final dual synthesis of those concepts in the current science, quantum mechanics.

By the way, February 1, 1958 the United States launched its first satellite 'Explorer.' The Filipinos jumped for joy, they were so happy. But the physics quest of the millennium was already started in the events previously described.

The author studied *PSSC Physics* the school year 1963-1964. By March 1964, the author had an intuitive

leap—that there was an aether after all (Einstein notwithstanding). This he based on several evidences. One group of evidences was the results of several experiments testing for Special Relativity (see *Electrino Physics*, Chapter 2). Another evidence was the next thing to be expected from the pattern established by the centuries of the wave-particle controversy, followed by the dual model of light and matter. But a more influential evidence was the Bible itself: Einstein taught that nothing could go faster than the speed of light. But Daniel 9 recorded a prayer that can be read in five minutes—Gabriel was said to start flying from heaven at the beginning of that prayer, arriving on earth to interrupt Daniel’s prayer at the conclusion of the prayer. Heaven is not in this solar system. It must be a minimum of several light years away—maybe much more. At any rate, Gabriel had to fly much faster than the speed of light for the Daniel 9 account to be true.

Some have said, “but angels are spirits, not flesh and bone. Maybe things material like flesh and bone cannot travel faster than the speed of light.” Jesus’ own experience answers this objection. On the morning of the resurrection, Jesus ascended to the Father in heaven, but descended to meet with the disciples on the road to Emmaus and in the Upper Room that evening. He later explained that “a spirit hath not flesh and bones, as ye see me have.” Luke 24:39. Jesus had flesh and bones even after his resurrection. It did not take Jesus years to fly to heaven and back. Jesus flew faster than the speed of light (Einstein notwithstanding). When some of his classmates and teachers were swayed by Einstein’s popular Theory of Relativity, and his own stand was unpopular, the author never vacillated from his concept arrived at that March—that there was an aether after all, and Einstein’s Theory of Relativity was partially in error. At the young age of 17 he aspired to be the one to derive relativity in an aether. He did not realize it that Hendrick Antoon Lorentz already derived it, even before Einstein’s theory, and that in

Lorentz's theory, the speed of light barrier was no problem. In 1977 the author derived relativity in an aether himself.

In 1969-1970 the author first wrote a summary of the centuries old wave-particle controversy over the nature of light in a religious text, *The Black Box of Time*. In 1990 he adapted that chapter as the beginning chapter of a precursor manuscript of *Electrino Physics*. That manuscript consolidated also *Relativity in an Aether*, 1977, and *Manipulating Gravity and Inertia in a New Model of the Universe*, 1982.

In 1990 the author realized it was not "relativity in an aether" precisely, but "quasi-relativity in an aether" (relativity up to a point). In the main, the principles of relativity and equivalence hold true, but in the absolute, both principles are false, which facts are demonstrated by the thought experiments propounded by the author in *Electrino Physics*, Chapter 2. In that chapter and Chapter 3, the author derives Special Quasi-Relativity in an Aether from first principles. The author shows that aether special relativity is in harmony with observations at typical angles of observation, but varies greatly from the expected in other configurations—and why that was never detected before.

Electrino Physics, Chapters 2 and 3, shows that the famous Lorentz Transformations can be derived from first principles in an aether system. The connection is stronger in this model to the Galilean Transformation than in Einstein's derivation. Special Quasi-Relativity in an Aether is in harmony with all the tests and observations relative to Special Relativity.

Electrino Physics, Chapter 4, shows that General Quasi-Relativity in an Aether derives easily from Special Quasi-Relativity in an Aether through putting the gravitational escape velocity transformation in the radius of the spherical coordinates of the Lorentz Line Element, arriving at the Schwarzschild Line Element. The Schwarzschild Line Element is employed in Einstein's General Theory of Relativity. And from it most tests for

General Relativity can be calculated. Numerically General Quasi-Relativity in an Aether is the same as General Theory of Relativity, except that there is an exciting explanation of the 3 term in the equation for the perihelic shift of Mercury in the aether model. The 3 is not just the way the equations turn out, it shows that there is an orbital component to aether motion, which, by the way, was the very thing Michelson and Morley tried to measure in their watershed experiment.

Electrino Physics, Chapter 5, demonstrates that our failure to have a model of gravity and inertia is the fault of Einstein's aether-less Theory of Relativity. With an aether, deriving a model of them is straight forward—uniting them in one formula is easy. This chapter gives us hope that mankind may develop inertia-less and gravity-free craft. The author believes he knows enough to make such a craft. But funding and security is lacking.

In *Electrino Physics* Chapter 6, mathematical models of electrons and photons are calculated from first principles. Up until now, uniting Special and General Relativity in particle physics has been seen to be as difficult as uniting fire and ice. In the aether model, however, Special Quasi-Relativity in an Aether and General Quasi-Relativity in an Aether are exact fits in the model calculations. But that is only if fracton charges come in $\pm e$, $\pm e/2$, $\pm e/4$, and $\pm e/8$ (as in the Electrino Hypothesis), not in $\pm 2e/3$ and $\pm e/3$ (as in the Quark Hypothesis). In Appendix B of *Electrino Physics*, the structures are induced for every known particle. There is no need for quarks and gluons in this model. Appendix A gives an example how Appendix B structures can be utilized in a new method of balancing particle decays called chonomics—giving the chonomics for leptons.

Chapter 7 of *Electrino Physics* presents a Unified Field Theory which unites an infinite number of forces—most of which were identified and formalized in a paper, G. L. Ziegler, “A New Way to Calculate Electron and Muon $g/2$ -

factors,” *Galilean Electrodynamics*, Vol. 17, No.1, January/February 2006. An alternate method of calculating the same things is in Chapter 8 of *ElectrinoPhysics*—calculated when the author doubted electrinos could orbit faster than the speed of light, which is theorized in Chapter 21. Both calculations may be useful for research. The unification in Chapter 7 comes largely in unification of a set of pairs of forces. To one person, there are “an obscene number of forces” in this model. But they are all united to one parent force in this model—gravity. They all play distinct roles which can be calculated. The author has spent years collecting these forces, distinguishing them from other similar forces.

Chapter 2

THE SUSTAINER

A. Introduction

In *Electrino Physics* Chapters 1-7, a model of physics—a Grand Unification Theory (GUT)—is developed based upon eight postulates. In Chapter 8 a sweeping unification is made of forces and systems with only two postulates—the parsimony principle and a formula predicting strong mass due to relativity. After the writing of this chapter, the author discovered he needed a third input into his system—the mass of the electron or the ratios of the radii in the relativistic inner frame and non-relativistic outer frames of particles. This cannot be derived, but must be input into the system. But, at any rate, one formula stood out in this chapter:

$$\frac{0 \text{ arbitrary mass unit}}{0} \equiv M_0(\text{arb.ma.u.}). \quad (2-1)$$

M_0 is the strong mass of a whole particle in the relativistic frame as seen by an observer at rest, 0 in the numerator on the left side of the equation is the mass of a whole particle (uniton) at rest, and $1/0$ is the gamma factor transforming the non-relativistic frame to the relativistic frame when the uniton travels at exactly the speed of light. Many fundamental constants, forces, and particles in the Universe can be derived from this simple definition.

B. Significance of the Uniting Definition

Since M_0 is in terms of \hbar , c , and G , the application of the definition shows that the speed of light c , the gravitational constant G , and Planck's constant over $2\pi \hbar$ are not dependant on matter density in the Universe, temperature, or pressure, or any other thing. They only appear complex due to the units we measure them in—kg, m, s. In natural units they are all 1 and changeless. The Universe has an underlying simplicity to it.

A tremendous benefit of this discovery, also, is the great harmony this can bring to some of science. Much is hard derived from one uniting master definition.

C. The Sustainer

A shockingly obvious result of this postulate foundation of our calculations is that the formula, otherwise indeterminate, must be defined. But who defines it, and how can it be dependably defined in all particles, in all regions of the Universe, in all ages of the Universe's history? This is a big job! It is an essentially important job. The very existence of the Universe depends on it. We cannot define it. It was defined long before us—long before the creation of the human race, and far beyond the confines of this earth.

Equation (2-1) gives a surprisingly complete blueprint of the One that sustains the Universe:

1. That One must be before all things.
2. By that One must all things consist.
3. That One must be eternal.
4. That One must be immortal.
5. That One must be omnipresent.
6. That One must be exceedingly wise.
7. That One must never change the plan of sustaining the Universe.

The Bible provides us the descriptions of One that fulfills all these scientific criteria of our needed Sustainer of the Universe:

1. Colossians 1:17.
2. Colossians 1:17.
3. 1 Timothy 1:17.
4. 1 Timothy 1:17.
5. Psalm 139:7-12.
6. 1 Timothy 1:17.
7. Malachi 3:6, Isaiah 40:26.

The Bible identifies that One as God in three Persons—the Father, Son, and Holy Ghost (Matthew 28:19). Accident cannot define Eq. (2-1) for all particles, for all locations, and all time in the history of the Universe. Our origin cannot be a series of accidents. Is it now remarkable that the Bible fulfills the deepest needs and the most up-to-date discoveries of science?

Chapter 3

THE IMPROBABILITY OF THE BIG BANG

New to human science in *Electrino Physics* is the idea of elementary particle fusion—of electrino fusion. The idea was first brought out in Chapter 6. Chapter 12 more fully brings out this phenomenon for artificially induced fusion. In this chapter is a section on the origin of the Universe, which is quoted in part below.

The electrino fusion model of elementary particles may revise our model of the origin of the Universe. While an all matter Universe could be constructed using electrino fusion techniques, an all matter Universe could not result from a Big Bang. There would be symmetry in the chaotic forces produced there. A Big Bang should produce as much anti-matter as matter. There is no electrical asymmetry which should dictate that all positrons should be fused to protons and neutrons and not that electrons should be fused to anti-protons and anti-neutrons.

Whether nucleons are matter or antimatter should be like a flip of a coin in a Big Bang. Heads for matter and tails for antimatter. If there are about 10^{80} nucleons in the Universe, what is the probability that they are all matter and that they came from a Big Bang?

$$P_{Big\ Bang} = \frac{1}{2^{10^{80}}}. \quad (12-1)$$

This is a probability so small the author cannot evaluate it.

There could be an original asymmetric fusion of positrons and not electrons, however, resulting in the Universe as we observe it. This begs for an obvious interpretation affecting our models of the origin of the

Universe. However, this volume will not interpret this evidence.

$$P_{\text{asymmetric fusion}} = 1 - \frac{1}{2^{10^{80}}}. \quad (12-2)$$

The Universe must have originated from an asymmetric fusion of positrons and not electrons.

The author in *Electrino Physics* did not interpret this shockingly obvious clue as to the origin of the Universe. But the author will here connect the dots. We live in a Universe where there is more matter than antimatter. That is not possible through pair production alone, but it would be possible by fusing the anti-semions in positrons from pair production to the core particles of protons and neutrons, and not by fusing the semions in electrons to the core particles of anti-protons and anti-neutrons. But there is no natural law that positron anti-semions should be fused and not electron semions. This could not happen as an accident or natural law. It had to be the result of the deliberate choice of one or more Super Intelligent and Super Powerful Benevolent Beings acting in concert by convention.

Furthermore, the chance that the present matter-antimatter distribution originated from a Big Bang is less than one particle in the Universe per all the particles in the Universe. The chance that this distribution arose from asymmetrical fusion is about 1.0 minus that probability.

We can never eliminate all probability of a Big Bang and prove it never happened. But let us be reasonable. Let us let the particles of the Universe be democratic and take a vote.

Chapter 4

THE CREATION METHOD

Electrino Physics, Chapter 6, also begins the consideration of the quantization of spin and the method of the creation of particles. Electrinos come in unitons, semions, quartons, octons, but not hexadecons, which would violate spin rules. The one way tendency of electrino fusion indicates that octons would fuse to quartons, which would fuse to semions, which would fuse to unitons, which would not fuse further. Actually, octons could fuse directly also to semions or unitons. At any rate, octons are the beginning particles.

Man has never controlled octons. All our control so far has been of particles containing quartons, semions, and unitons. But electrino physics indicates that octons should exist. We can see that octons are creation particles. All things can be made of them.

Man can walk or run, but he can travel faster if he makes automobiles, airplanes, or rockets. He can estimate time, but he can be more precise if he makes watches or atomic clocks. He can manipulate DNA in test tubes, but he can be more precise and rapid if he makes DNA sequencers and synthesizers. Just so, perhaps God can extend and accelerate His creative powers by making machines to sequence and synthesize octons in particles, and sequence and synthesize those particles in higher structures, like minerals, vegetation, animals, or people. Each desired object has its computerized mathematical template. Maybe that was the way God created the Universe and this earth. Or maybe His Spirit was so adept and rapid at creating, that He didn't need any machine. He could do it all Himself. But at any rate, God apparently used the synthesis of octons in His creation of things.

When he wanted a bird, He synthesized a bird from octons. He was not indebted to pre-existing matter.

This method of creating is in contradistinction to the Big Bang Theory and Evolution. Instead of a Big Bang, God could create everything as needed—worlds, stars, galaxies. Also the original creatures could be made perfect to start with, not slow adaptations of genetics through mutations.

Incidentally, at the University of Washington, Seattle, Washington USA, the author observed a series of experiments to try to induce beneficial mutations in fish through the irradiation of fish eggs. The radiation caused mutations, but none beneficial. The more radiation the eggs were exposed to, the more stunted and deformed the hatched fish were. But there were no beneficial mutations. The evolutionary theory of the adaptation of species through beneficial mutations is fallacious.

Instead, now, electrino theory of physics points to intelligent design for the origin of this Universe. Now again, “In the beginning God created the heaven and the earth” (Genesis 1:1) is good—the best—science.

Chapter 5

THINGS WHICH DO NOT APPEAR

“Through faith we understand that the worlds were framed by the word of God, so that things which are seen were not made of things which do appear.” Hebrews 11:3.

According to Electrino Fusion Model of Elementary Particles, by the author, everything in the Universe is made of electrinos. But electrinos do not appear. They cannot be made to appear with any degree of enlargement in a microscope. They do not appear in an electron microscope. Why? Because electrinos all have imaginary radii (the radii have the square root of minus one in them). Things which do appear have real radii. According to Hebrews 11:3, the things which are seen were not made of things which do appear. Electrinos do not appear. Hebrews 11:3 is in harmony with the Electrino Hypothesis. Is it remarkable that the Bible should be in harmony with what in some ways is the most advanced model of physics? How could the writer of Hebrews know that? Could he learn it from any then current model of science? No. He could only know it through revelation by the Spirit of God. The Bible is in harmony with the most advanced, most up to date model of physics.

Chapter 6

THE EFFECTS OF THE FALL

The Bible makes plain several effects of the fall of man. There was a sense of nakedness after the fall that there was not before the fall. Genesis 3:7. Adam and Eve were fearful of the approach of God after the fall, which they were not before the fall. Genesis 3:8-10. The soil was more difficult to till and work after the fall. After the fall there were thorns and thistles, which there were not before the fall. Genesis 3:17-19. After the fall, people, animals, and vegetation returned to dust after their deaths. Genesis 3:19. That phenomenon didn't exist before the fall. Then there was no death of man or beast. These are all effects of what we now know as the order-to-disorder arrow in the second law of thermodynamics. In the world order we live in after the Genesis fall, order tends to disorder—people and things grow old, sick, and die. But that was not the way it was in the beginning. Up until now, we have not known a way around it. But the author discovered a way around that deleterious law in *Electrino Physics*, Chapter 16. In the book, *Does God Really Love Us?* the author enlarges upon that scientific plan, and shows that it is one of the Biblical prophetic scenarios for the last days. God wants us to work together and do it. One person can not do it. But the human race can do it—even a small subset of it.

The effects on Adam and Eve and their posterity and the earth after the fall were not only caused by the removal of the Tree of Life from the diet of man. Genesis 3:22. They were a change in the force fields outside the Garden of Eden, as compared with the force fields inside the Garden of Eden. But now we may know the difference in those force fields. It is opposite directions for the order to disorder arrow in the two regions. It would be like a toggle switch in the second law of thermodynamics. God

switched that toggle in the area outside Eden by merely removing a process in that area that kept all things healthy and alive. We can even theorize that process as similar to what we would do with positron colliders to reverse the order to disorder arrow ourselves.

But why would God do this to the human race? What would have happened had God not removed that protection from the human race? The negative effects and consequences of the violation of God's law would quickly be backed out of existence, but there would be no ability to shed blood to make an atonement for sin. Also the human race would have no just sense of the enormity of sin and its consequences. Adam and Eve and the human race needed to complete the experiment with sin and find out just how bad it is. The Messiah needed to come and die and atone for sins. But apparently God held in reserve the reversal of the order-to-disorder arrow in the second law of thermodynamics for the last days, as an effective mechanism for restoring order on this planet and restoring all the inhabitants to health, happiness, and holiness. But the post-fall changes are correctly attributed to contingency plans by God, not to accident or automatic consequences of the sin. Genesis 3:22-24. This point is in harmony with our science model.

Chapter 7

HOW DO YOU SEE IT NOW?

New information has been presented to the reader in this book and in *Electrino Physics*, by the author. Is it scientific? Is it true? Does it meet the needs of mankind? Current theories of physics have enough information to destroy the earth in a nuclear holocaust. The new model by the author has enough information to restore the entire earth to Edenic perfection. The current model of physics has enough information to kill you. The new theory of physics has enough information to heal you of any disease and make you live forever (provided the technology is funded). An origin by accident with no guarantee of a future life can be a depressing thought, but creation by intelligent design can give identity and purpose to life. True, it also gives accountability. God chastises and disciplines those He loves, but He is not willing that any should perish. 2 Peter 3:9. Through the technology introduced in these books, and in *Refresher 1*, by the author, God could fulfill His purpose to save every spec of life in the history of the Universe. That includes you. God loves you. He is not willing for you to perish.

So how do you see it now? Haggai 2:3. You have seen atheist models of science, and now a model of science compatible with the Bible. You have seen a great dichotomy between accepted science and the Bible. Now you have seen a model of science that squares with the Bible. In the past you have had your opinions and taken your stands. But how do you see it now?