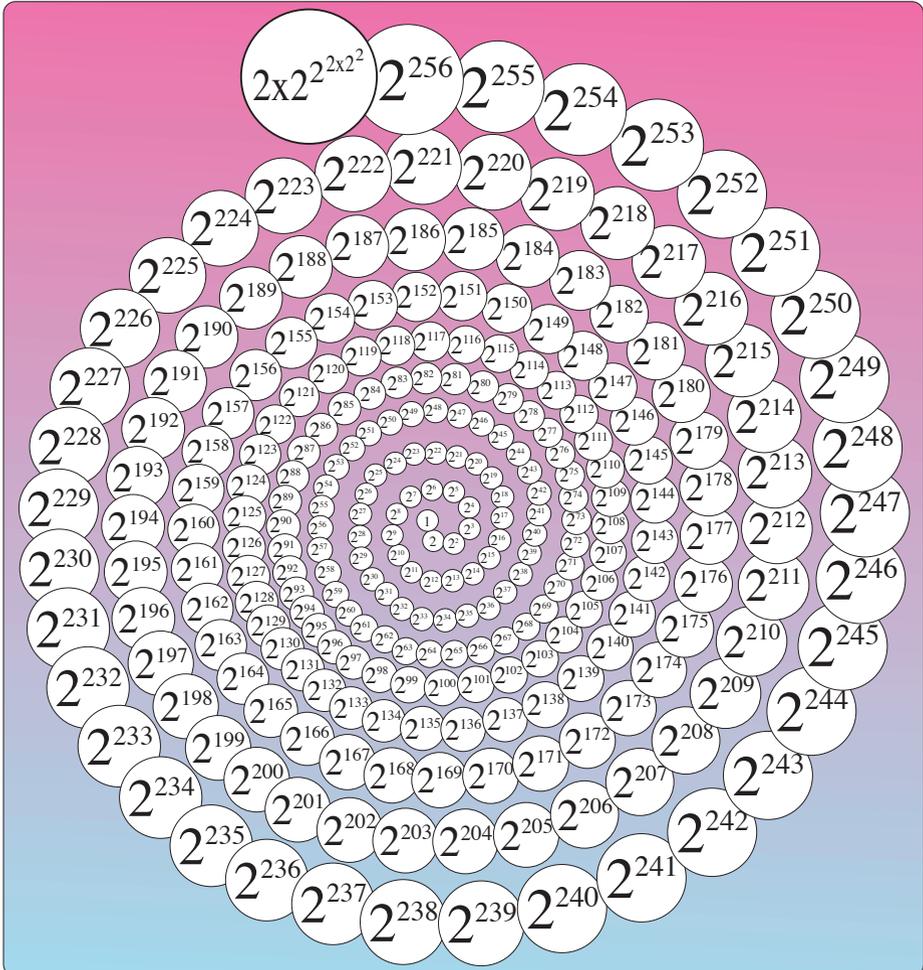


*New Physical Principles of Cosmic Measurement to
Replace the Metaphysical Assumptions of Big Bang Theory*

James Carter circlon@yahoo.com

The Creation Spiral of the Universe



$2^{256} = 231584178474632390847141970017375815706539969331281128078915168015826259279872$

This drawing illustrates the exact number of protons and electrons at each stage of the matter bifurcation cycle of the Living Universe.

© 2013 by James Carter

The Initial Condition and Evolution of a Living Cosmos

James Carter

Abstract

The **Standard Model Big Bang Theory** is based on the unmeasured but unquestioned metaphysical assumption that the electron/proton mass ratio of $e/p = 1/1836$ is a universal unchanging constant. To support this idea, theorists are forced to imagine that the universe began with the sudden appearance of a singularity of “pure” energy. This unknown type of energy was then imagined to be instantly transported to the far reaches of the known universe where it became transformed into electrons and protons at $e/p = 1/1836$. This peculiar creation of matter was produced without any apparent creation of antimatter. These particles of matter then somehow managed to simultaneously find one another in the vastness of space, couple together into atoms, and simultaneously emit a universe-wide blast of photons with a constant 3000°K blackbody temperature corresponding to $e/p = 1/1836$. These photons are imagined to have “cooled” to today’s value of 2.7°K through an imaginary process that creates exponential violations of the first and second laws of thermodynamics. The universal homogeneous cloud of radiating atoms then slowly cooled, divided, and collapsed into first stars, then galaxies, and finally great walls of galaxies. General Relativity has no solution for this fractal accumulation of the original cosmic matter. The Big Bang model’s transition from a single point of energy to today’s universe requires cosmologists to imagine a whole series metaphysical assumptions that have no counterparts in the conservation laws and principles for the scientific method of experimental measurement.

The Living Cosmos Principle is based on the principles and conservation laws of the scientific method for the experimental measurement of mass, space, time, and gravity. The initial physical assumption of cosmic evolution is the eternal, separate, and opposite existences of the proton and electron. These particles have always had a total mass of about 10^{80} protons and a total energy of about 10^{67} J. The total Energy/Mass = c^2 of the atoms and photons in the cosmos has always been about $c^2 = E/M = 10^{67}\text{J}/10^{50}\text{kg}$.

The positive reality of the Living Cosmos begins as a single anti-hydrogen atom sitting at rest in the “center” of the negative reality of the universal void. What makes this anti-atom “alive” is that first it has eternal existence and then relative to the constant size and mass of the positron, the antiproton is slowly growing in size with a proportional decrease in its mass. To conserve energy and angular momentum, this transformation eventually caused the anti-atom to collapse into an antineutron and then bifurcate into a pair of high energy stable antineutrons. This began a series of 256 non-sequential antineutron bifurcations that lasted many billions of years. The process began very slowly, speeded up, and then stopped when the mass and size of the antiproton equaled that of the positron. The cosmos then and now contained 2^{256} eternal electrons and

protons that were bound together into stable neutrons. Because the bifurcation process began slowly and then became very rapid towards the end, it stopped with the last of the bifurcated antineutrons being mostly concentrated into large neutron clouds at the locations of today's galaxies, stars, and planets. The neutrons eventually all decayed into electrons and protons, coupled into atoms, and used their kinetic and ionization energies to fill the universe with 2.7°K spectral blackbody photons.

The Initial Condition of a Living Cosmos

This following model of cosmic evolution for the observed universe was accomplished without any departures from the rules of quantum mechanics or electrodynamics as they apply to the principles and conservation laws of the scientific method of experimental measurement.

The Living Cosmos is not a universal “theory” of either everything or anything. It is a physical model of the experimental measurements that we make on Earth and in the cosmos. Physical principles of the cosmos must be constructed from these calculations and metaphysical theories must propose ideas for data that is not yet found in experimental values.

The Living Cosmos is not a theory but a physical principle based on the scientific method of measurement. It makes none of Big Bang theory's unmeasured metaphysical assumptions. The initial physical assumption of the Living Cosmos model of creation is based on two experimental principles of cosmic measurement.

Electrons and Protons

Electrons and protons are eternal and have always existed in equal numbers with a total Energy/Mass of $e/m = c^2$. Electrons evolve with a decreasing energy/mass while the energy/mass of the protons remains constant. The rotational energy/mass $e/m = CC$ lost from the electron provides the linear energy/mass $e/m = c^2$ for the motion of atoms $e/m = c^2/2$ and the emission of photons $e/m = cC$ throughout the cosmos.

Photons

Photons are eternal antimatter (e)/matter (m) dualities of $e/m = cC$ created by combining the circlon shaped structures of electrons and protons. Each photon contain four equal and opposite units of energy an emitting atom's rotational energy/mass $e/m = C$ and its linear energy/mass $e/m = c$. The energy of the antimatter body from the electron moving at c , $e = -mc^2/2$. The energy of this negative body spinning at C , $e = -mC^2/2$. The energy of the positive matter body moving at c , $e = +mc^2/2$ and the energy of the matter body spinning at C , $e = +mC^2/2$. These four equal and opposite energies combine for a total photon energy of $e = mcC$.

Photons did not appear in the cosmos until the evolving of the electron/proton mass ratio reached $e/p = 1/146.5$. Prior to $e/p = 1/146.5$, neutrons remained stable with electrons confined to the inside of protons and in any encounter between an electron and proton a stable neutron would be formed rather than photons. After $e/p = 1/146.5$ the electron's circlon shape was too large to fit inside of the proton. After that point in cosmos time, electrons could then attach to the outside of protons, form atoms and emit photons. The momentum and energy of these spectral photons has increased with the evolutionary increase in the electron/proton mass ratio $e/p = 1/????$.

These dual cosmic principles of experimental measurement define the components of the cosmic reality. These are not “theories” of electrons, protons and photons. They are just their measured values. The Living Cosmos model contains no metaphysical assumptions of theories and only makes the physical assumption of the validity of the conservation laws established by the scientific method of physical measurement.

Big Bang theorists imagine and believe that the universe began as pure energy $e = mc^2$ and that has now become transformed into mostly pure mass $m = e/c^2$. In the Living Cosmos model, energy and mass are always equal and complementary aspects of the units of energy/mass = c^2 that we call electrons, protons, and photons. Individual values of energy or mass can only be conceptually separated from a unit of energy/mass. Energy and mass are equal, opposite, and inseparable parameters of atoms $e/m = CC$, photons $e/m = cC$, and momentum $e/m = c$.

The Living Cosmos contains absolute linear and rotational motion but no “space”, “aether”, vacuum, or a “continuum” other than the negative reality of an imaginary universal void. This void has the position of Zero Momentum Rest for all moving atoms and photons. Time is a measure of the relationship between the rotational and linear motion of energy/mass.

When a photon $e/m = cC$ is absorbed by an atom, it maintains its rotational $e/m = C$ within the atom and transfers its linear $e/m = c$ (momentum) to the absorbing atom. When the photon is re-emitted, its rotational $e/m = C$ is divided between two photons and combined with the atom's linear $e/m = c$ to provide the photon's equal portions of linear $e/m = c$ plus rotational $e/m = C$.

The Evolution of the Living Cosmos

The universe did not begin very hot and then cool off. The cosmos was always very cold but it has gradually been getting warmer. It has gone from $0^\circ K$ at its beginning to about $7^\circ K$ Today. There never was a very hot beginning singularity explosion of pure energy. Rather, we live in a very cold, eternal Living Cosmos containing only the pure rotational Energy/Mass $e/m = CC$ of spinning antimatter/matter dualities and the linear energy/mass of atoms $e/m = c^2$ and

photons $e/m = cC$.

A position at Zero Momentum Rest defines the primordial Anti-Atom's beginning temperature of Absolute Zero 0°K . It had the rotational energy of its mass spinning at the speed of light C on different planes but it had none of the linear energy needed to decay or create the momentum of photons.

The only constant in the Living Cosmos is the structural relationship between mass, space, time, and gravity and its calculations of force, momentum, angular momentum, and energy/mass.

An Arbitrary Beginning for a Living Cosmos

Antiproton/Positron Mass Ratios $a/p = 1836/1$ to $a/p = 146.5/1$

Bohr radius $a_0 = \alpha\lambda_\infty/4\pi = 1 = 5.292 \times 10^{-11}$

Fine structure constant $\alpha = 4\pi a_0/\lambda_\infty = .0073$

Hydrogen ionization photon $= \lambda_\infty = 4\pi a_0/\alpha = 9.11 \times 10^{-8}$

Neutron Stability Number $= M_p/M_E \sqrt{\alpha} = -157$

The universe does not contain any absolute three dimensional space. All we can ever measure is an infinite number of one-dimensional values. With the second dimension of time we can measure the two additional opposite dimensions of motion but these are still occurring within the one dimensional space of the void. Absolute three dimensional space cannot be measured and is purely in your imagination. The four-dimensional space and time of gravitational force and motion is measured with an interval of time and along single vector of space. The four-dimensional phenomenon of gravity is best understood in terms of our three-dimensional senses and imaginations. The universe's third gravitational dimension is not absolute like the first two but rather is constantly changing with the gravitational transformation of mass, space, and time.

The Living Cosmos Principle is based of the single initial physical assumption of the eternal and separate existences of the proton and electron. These particles have always had a total mass of about 10^{80} protons and a total energy of about 10^{67}J . At this arbitrary point of beginning, the Living Cosmos is a single anti-hydrogen atom sitting at rest in the "center" of the universal imaginary void of Zero Momentum Rest.

These two equal and opposite eternal energy/mass particles were coupled together into an anti-hydrogen atom at 0°K . All of the universe's rotational energy/mass $E/M = CC$ was contained completely within the spinning coils of the Circlon shapes of these two particles.

The single eternal anti-atom had an evolving antiproton/positron mass ratio of $a/p = 1836/1$. What makes the cosmos "alive" is that the antiproton is slowly growing in size with a proportional decrease in mass, while the positron's mass and size remain constant. In this process, the antiproton's rotational Energy/Mass $E/M = CC$ is slowly transferred to the linear energy/mass $e/m = c^2$ (vibration) between the atom's two particles. The anti-atom's internal linear energy continued to build up until the mass ratio reached $a/p = 146.5/1$ and the

positron was captured by the antiproton to form an antineutron.

The Era of Antineutron Bifurcation

Antiproton/Positron mass ratios $a/p = 146.5/1$ to $a/p = 1/1$

Bohr radius $a_0 = \alpha\lambda_\infty/4\pi = 12.5 = 6.615 \times 10^{-10}$

Fine structure constant $\alpha = 4\pi a_0/\lambda_\infty = .0000465$

Hydrogen ionization photon $= \lambda_\infty = 4\pi a_0/\alpha = .000179$

Neutron Stability Number $= M_p/M_E \sqrt{\alpha} = -137$

The Living Cosmos process by which the universe became filled with electrons and protons that then accumulated into galaxies and stars is analogous to the manner in which a single diatom can continually divide until it eventually fills the oceans with different species of algae, each concentrated into many individual fractal plumes.

Over eons time, the cosmic antiproton/positron mass ratio evolved from $a/p = 1836/1$ to $a/p = 146.5/1$. This increase in relative size of the antiproton's circlon shape changes the way that the primary and secondary coils of the two particles physically align with one another.

The Circlon Structural Coil Ratio $P/S = \sqrt{\alpha} = \text{Primary/Secondary}$ is the size ratio at the point structural connection between the primary coils of the antiproton and the secondary coils of the antiproton. Today this ratio between the coils of electron and proton is $P/S = \sqrt{\alpha} = 1/11.7$ and the ratio between Primary coils and Tertiary coil is $P/T = \alpha = 1/137$.

At $a/p = 146.5$, the Circlon Structural Coil Ratio reached unity $P/S = \sqrt{\alpha} = 1/1$. This means the primary coils of the positron were identical in size to the secondary coils of the antiproton. At $\sqrt{\alpha} = 1/1+$, The positron's primary coils, which had been around the outside of the antiproton's secondary coils could now fit inside of the antiprotons coils. The effect of this change in the $P/T = \alpha$ ratio is to cause the positron to be captured inside of the antineutron's secondary coils and the anti-hydrogen atom become an antineutron. The essence of what happened was that the anti-hydrogen atom was turned inside out to become an antineutron.

This primordial antineutron now contained the tremendous amount of linear $e/m = c^2$ that had been building up in the anti-atom's structure over eons of time. This caused the antineutron to bifurcate into a pair of identical antineutrons just after the instant it formed. The two new antineutrons now contained no linear $e/m = c^2 = 0$. All of the $e/m = c^2$ contained in the parent particle had been divided between the equal momenta $mv + mv$ of the particles moving apart at virtually the speed of light. This period in cosmic evolution is analogous to Big Bang's Guth inflation where in one instant, matter and energy suddenly appear and in the next instant the matter with no momentum is transported billions of light years out into the universe. The only difference is that in the Living Cosmos it is momentum rather than magic that transports the matter billions of light

years into the universal void.

With none of the $e/m = c^2$ needed for decay, these new antineutrons were completely stable as they traveled into the far reaches of the universe. Then, after billions of years of the antiproton's rotational $E/M = CC$ being converted to linear $e/m = c^2$, the antineutrons eventually had enough $e/m = c^2$ to simultaneously bifurcate and convert it into the equal momenta $mv = mv$ of the four antineutrons moving apart at less than the speed of light on vectors at opposite right angles to their original motion.

This bifurcation was caused when the $e/m = c^2$ within the antineutron's structure became equal to the difference in rotational $E/M = CC$ between the two particles.

This gave the total particle the exact amount of energy/mass needed for a matter/antimatter annihilation but because the particles' $E/M = CC$ were not equal, the antimatter/matter pair bifurcated into a pair antineutrons instead of photons. Photons $e/m = cC$ can only be created from equal quantities of rotational $E/M = C$ and linear $e/m = c$.

Equal Annihilation Energy

$$e/m = c^2 + E/M = CC = E/M = CC$$

Antineutron Positron Antiproton

Bifurcation

$$E/M = CC \lllll e/m = c^2 - \ggggg E/M = CC$$

Antineutron Momentum Antineutron

These four particles remained stable for billions of years and then bifurcated simultaneously when the decreasing antiproton $E/M = CC$ became equal to the $E/M = CC$ of the positron plus the $e/m = c^2$ of the antineutron's structure. The eight new particles were all moving with equal momentum on opposite vectors located on one of three imaginary and cosmic perpendicular two-dimensional planes.

These eight antineutrons had reproduced in less time than their parents and the shared momentum of their decays was also proportionally less. This is because the percentage of the decreasing antiproton's $E/M = CC$ relative to the positron's constant $E/M = CC$ was constantly decreasing as the mass and size of their two connected Circlon shapes grew closer together.

These eight particles were the beginning of 256 non-sequential bifurcations of the cosmic antineutrons. This binary reproduction process increased the exact number of antineutrons in the cosmos by the powers of two $2^4, 2^5, 2^6, 2^7, 2^{10}$ ----- 2^{256} .

Each decay cycle occurred simultaneously with steadily decreasing particle lifetimes and were accompanied by proportional decreases in decay energy. This rapidly increasing reproduction process stopped abruptly when a/p mass ratio reached $a/p = 1/1$ and became electron/proton mass ratio $e/p = 1/1+$. The $E/M = CC$ of the antiproton was reduced to the same $E/M = CC$ as the positron and there was no more $e/m = c^2$ for decay. After 250 bifurcations the antineu-

trons ran out of decay energy and reproduction stopped.

At this point in evolution, the cosmos contained its present eternal total of 2^{256} electrons and protons with an eternal mass value of about 1.158×10^{77} protons or 1.67×10^{27} kg. These were all fused together into stable neutrons and spread out to the far reaches of the universe. Most were concentrated in large clouds around the area where stars are located today. These clouds were separated by a few light years but were clustered together within the area of today's galaxies. The galaxies were hundreds of light years apart but clustered together within great galactic walls.

The reason for the antineutrons' fractal accumulation in the cosmos was the non-sequential bifurcation/decay process. The increasing periodic rate of antineutron bifurcation went from very slow to very fast. The increase in this periodic rate was accompanied by a proportional decrease in the equal momentum of ejected antineutron pairs.

$$mv = mv * mv = mv * mv = mv * mv = mv$$

The non-sequential bifurcation process gave the first few antineutrons billions of years to spread out into the universal void while traveling at nearly the speed of light. After this first generation of *Great Wall Antineutrons* had spread to the far reaches of today's cosmos, a second generation of *Galactic Antineutrons* began bifurcating but were unable to move too far away from the locations of the last great wall antineutrons. These galactic antineutrons eventually became spread out within the cosmic locations of today's galaxies. A third generation of *Stellar Antineutrons* then continued bifurcating more rapidly but with even less momentum between them. When the stellar antineutrons had spread out into the galaxies to within a few light years apart, they became *Atomic Antineutrons* as they began bifurcating. With less and less momentum to separate them, the last of the 2^{256} bifurcated atomic antineutrons became concentrated in large stellar clouds at the locations of the last stellar antineutrons.

Matter = Antimatter Equality

Antimatter/Matter mass ratio 1/1

Bohr radius $a_0 = \alpha \lambda_\infty / 4\pi = \infty$

Fine structure constant $\alpha = 4\pi a_0 / \lambda_\infty = 1/\infty$

Hydrogen ionization photon $= \lambda_\infty = 4\pi a_0 / \alpha = 4\pi$

Neutron Stability Number at $1/1 = M_p / M_E \sqrt{\alpha} = 0$

At e/p mass ratio = 1/1, the decreasing E/M = CC of the negative antiproton became equal to the constant E/M = CC of the positive positron. This was the only instant in cosmic history when matter and antimatter existed in exactly equal quantities. At e/p = 1/1+ the antiprotons and positrons were conceptually transformed into electrons and protons when the negative particles became less massive than the positive particles.

The essential difference between antineutrons and neutrons is that the negative particle that is producing the neutron's increasing internal $e/m = c^2$ is less massive than the constant and stationary positive proton. The result is that unlike an antineutron, the electron can never build up enough $e/m = c^2$ within the neutron to match the proton's $e/m = CC$ and initiate a bifurcation or cause an annihilation.

2²⁵⁶ Tiny Nuclear Bombs

Electron/Proton Mass Ratio $e/p = 1/146.5$

Bohr radius $a_0 = \alpha \lambda_{\infty} / 4\pi = 12.5 = 6.615 \times 10^{-10} \text{ m}$

Fine structure constant $\alpha = 4\pi a_0 / \lambda_{\infty} = .0000465$

Hydrogen ionization photon $= \lambda_{\infty} = 4\pi a_0 / \alpha = .000179 \text{ m}$

Neutron Stability Number $= M_p / M_E \sqrt{\alpha} = 1$

These 2²⁵⁶ neutrons remained stable for millions of years while the linear energy/mass within their structures continually increased but never by enough to cause them to decay. What caused the particles to finally decay was not their increasing internal $e/m = c^2$ but a change in the geometry of their circlon shapes.

As the Circlon Structural Coil Ratio $P/S = \sqrt{\alpha} = 1/1$ reached unity the electron's primary coils could no longer fit inside of the proton's secondary coils. neutron's two Circlon shapes grew smaller with the increasing e/p mass ratio, As soon as the primary coils of the electron had grown too big to fit inside of the proton's secondary coils the electron to popped out from within the physical structure of the proton. In this decay, the electron and proton were ejected from one another with the tremendous amount momentum contained in the linear $e/m = c^2$ that had been building up within the neutrons from the time they were formed.

After this cosmic dimensional transformation in the Circlon shape's structural coil ratio α , the larger electrons were now able to couple to the outside of the proton with a circlon shaped Bohr radius a_0 charge particle. This formed a Hydrogen atom that was able to emit photons into the cosmos for the first time. These photons were produced with equal units of the atom's $E/M = CC$ and $e/m = c^2$.

Nuclear Synthesis

In this high energy electron-proton plasma environment, it was easy for them to couple together into Hydrogen atoms and fuse into neutrons. With a Neutron stability number of slightly more than 1.0+, the neutrons were virtually stable with extremely long lifetimes.

The neutrons fused with protons to produce H-1, H-2, H-3, and H-4 isotopes. These transformed into He-4 alpha particles and before long the cosmos was composed of mostly Hydrogen and Helium atoms with the remainder con-

sisting of nuclear isotopes from all the other elements.

In the high energy, neutron rich environment within the stellar clouds, nuclear fusion proceeded at a rapid rate and soon there were a couple thousand different nuclear isotopes of the various elements. Because the neutrons were stable, most of these newly created isotopes were also virtually stable. As the nuclear stability number continued to grow, the neutrons became less stable and the heavier of the newly formed nuclear isotopes began to decay. As this process continued, the cosmos lost more and more of its previously stable nuclear isotopes as they decayed into lighter and lighter stable atoms. Today, after billions of years of cosmic evolution and nuclear decay, the nuclear stability number has evolved to 157 and the cosmos has now been reduced to only 282 stable isotopes with a few very long lived unstable ones like Thorium and Uranium.

The 2.7° Kelvin Cosmic Frozen Fire

Electron/Proton Mass Ratio e/p = 1/147

Bohr radius $a_0 = \alpha \lambda_\infty / 4\pi = 12.49 = 6.61 \times 10^{-10} \text{ m}$

Fine structure constant $\alpha = 4\pi a_0 / \lambda_\infty = .0000468$

Hydrogen ionization photon $= \lambda_\infty = 4\pi a_0 / \alpha = .000177 \text{ m}$

Neutron Stability Number $= M_p / M_E \sqrt{\alpha} = 1+$

Instead of Big Bang's giant singularity explosion of pure energy, the Living Cosmos began its active life with the detonation of 2²⁵⁶ tiny neutron bombs.

After the cosmic nuclear synthesis, electrons coupled to atoms and began emitting photons. This produced a sudden and enormous blast of blackbody photons from one end of the cosmos to the other. Before this dramatic event there were no photons in the cosmos.

At e/p mass ratio 1/147, atoms produce a blackbody distribution curve with a temperature of about 2.7°K. As the e/p mass ratio increases, the Bohr radius a_0 decreases and this decreases the wavelengths of photons and increase their $e/m = c$ and momentum $p = mc$. This cosmic process of increasing photon energy has proceeded to today where the electron/proton mass ratio is 1/1836 and the blackbody distribution curve for atoms is at about 3000°K.

When the atoms emitted their last thermal photons and dropped down into their ground states, the cosmos consisted of a large variety of mostly ground state atoms that had converted their ionization energies into photons. Among and between these great stellar clouds of atoms, the cosmos was filled with an intense blackbody radiation of 2.7°K spectral photons with wavelengths between one meter and .0003m. These same eternal photons still travel the universe today with conserved momentum $p = mc$, angular momentum $I\omega = m\lambda c / 2\pi$, energy $e = mcC$, and wavelengths $\lambda = h/mc$.

The Hubble Red Shifted Galaxies

Electron/Proton Mass Ratio about e/p = 1/900

Bohr radius $a_0 = \alpha\lambda_\infty/4\pi = 2.04 = 1.0796 \times 10^{-10} \text{ m}$

Fine structure constant $\alpha = 4\pi a_0/\lambda_\infty = .00175$

Hydrogen ionization photon $= \lambda_\infty = 4\pi a_0/\alpha = 7.75 \times 10^{-7} \text{ m}$

Neutron Stability Number $= M_p/M_E \sqrt{\alpha} = 37.6$

After many billions of years, the stars and galaxies had become configured by the force and motion of gravity into the forms that we see with the Hubble telescope. The most distant galaxies that we can measure, have red shifted wavelengths in their spectral photons that are seven to ten times longer than the same spectral photons here on Earth. As the e/p mass ratio increases with the decrease in electron $E/M = CC$, it causes the Bohr radius a_0 to decrease and the Circlon Structural Coil Ratio $P/S = \sqrt{\alpha}$ to decrease proportionally. This gradually increases the energy and temperature at which atoms emit spectral photons.

In this Hubble era of electron evolution, the spectral photons emitted by atoms with heavier electrons had wavelengths that were several times longer than the same spectral photons we measure here on Earth. *The Hubble red shift is caused by the individual expansion of electrons and not by the general expansion of the universal void.*

The Dark Energy Myth

Electron/Proton Mass Ratio e/p = 1/1600

Bohr radius $a_0 = \alpha\lambda_\infty/4\pi = 1.148 = 6.075 \times 10^{-11} \text{ m}$

Fine structure constant $\alpha = 4\pi a_0/\lambda_\infty = .0055$

Hydrogen ionization photon $\lambda_\infty = 4\pi a_0/\alpha = 1.39 \times 10^{-7} \text{ m}$

Neutron Stability Number $= M_p/M_E \sqrt{\alpha} = 119$

It is from around this era in cosmic evolution that astronomers have recently observed that the most distant of the measurable supernova explosions have considerably less energy and intensity than supernova explosions in nearby galaxies. Big Bang theorists try to explain this decreased energy and intensity by imagining a whole new dimensional layer for their spacetime continuum. Unlike the Guth layer of dimensional reality that instantly expanded the entire cosmos and then disappeared, this new layer takes the form of an increasing antigravity force field that is somewhat stronger at long range than gravitational force and causes the galaxies to slowly accelerate away from the bulk of the cosmos. This imagined antigravity repulsive force has been called everything from Quintessence to Dark Energy.

This whole imagined of Dark Energy idea is nothing more than an ad hoc assumption by Einstein's followers to validate his, and everyone else's dearly held but unverified belief in an eternally constant electron/proton mass ratio of

$e/p = 1/1836$. The well established astronomical measurements of decreased supernova energy and intensity are not at all unsuspected in the Living Cosmos. The so called Dark Energy effect is simply the expected result of decreasing rotational Energy/Mass and increasing linear energy/mass. At this interval on the e/p mass ratio time clock, supernovas emitted spectral photons with less energy and longer wavelengths than they do today. These less energetic photons decreased the overall energy and intensity of supernovas from that time period.

Dinosaurs Running Along on the Continents

Electron/Proton Mass Ratio e/p = about 1/1700

Bohr radius $a_0 = \alpha \lambda_\infty / 4\pi = 1.02 = 5.506 \times 10^{-11}$ m

Fine structure constant $\alpha = 4\pi a_0 / \lambda_\infty = .00702$

Hydrogen ionization photon $= \lambda_\infty = 4\pi a_0 / \alpha = 9.9 \times 10^{-8}$ m

Neutron Stability Number $= M_p / M_E \sqrt{\alpha} = 151$

At this stage of the Living Universe, the evolution of the cosmic e/p mass ratio is able to supply answers to some long contemplated paradoxes and mysteries in Earth's geological history. The constant transformation of electron rotational Energy/Mass into photon and atomic linear energy/mass not only explains the complete structural dynamics of observed cosmic evolution but is also a basic cause of occurrences such as continental plate tectonics, the large size of dinosaur bones, and the enormous energies of individual cosmic rays.

Enormous Dinosaur Bones

This evolutionary decrease in the Bohr radius combined with gravity can account for the extremely large size of dinosaurs. Millions of years ago, when the Bohr radius was larger, atoms were larger and less dense. Dinosaurs, living in the reduced gravity on a larger and less dense Earth, were able to grow very large and still not be too heavy to walk around. Today, their much heavier weight on a denser Earth would render them incapable of walking or running.

If Earth's radius was twice what it is today, its density would be one/eighth and the gravitational force at its surface would be one/fourth (2.4 m/s^2). This is almost identical to the gravity of the Moon. Certainly, dinosaurs that were too heavy to be able to walk around on Earth would have been able to get up and run on the Moon.

Shrinking Atoms and Cracking Continents

Electrons are attached to atoms at the Bohr radius. The Bohr radius link that holds the electron and proton together in Hydrogen and other lighter elements is considerably larger than the 79 Bohr radius links that hold a Gold atom together. This is basically why a Gold atom is much denser than 79 Hydrogen

atoms.

The larger an atom's mass and number of electrons, the less its size is decreased in proportion to the hydrogen atom. Heavy atoms from the upper end of the periodic table shrink considerably less from the Bohr radius evolution than atoms from the lower end. When Earth was in a molten state, the heavy elements tended to sink toward its center, while the lighter elements floated to the surface. Once Earth's surface had cooled to a semi-solid state, cracks began to develop in its outer crust composed of mostly elements lighter than Iron, such as Silicon and Oxygen. Earth's continental plates appeared to spread apart in the observed processes of sea floor "spreading" and plate tectonics. This is actually an optical illusion. Earth's surface layers are actually shrinking and cracking like mud on a drying lake bed. The uneven shrinking of Earth's atoms is also a basic cause of earthquakes.

Solar Energy and Cosmic Rays

Electron/Proton Mass Ratio 1836/1

Bohr radius $a_0 = \alpha \lambda_\infty / 4\pi = 5.292 \times 10^{-11} \text{ m}$

Fine structure constant $\alpha = 4\pi a_0 / \lambda_\infty = .0073$

Hydrogen ionization photon $= \lambda_\infty = 4\pi a_0 / \alpha = 9.11 \times 10^{-8} \text{ m}$

Neutron Stability Number $= M_p / M_E \sqrt{\alpha} = 157$

It is the eternal steady transformation of electron rotational Energy/Mass $e/m = CC$ into atomic and photon linear energy/mass $= cc$ that supplies energy to the sun and stars and gives them the extremely constant output over billions of years that has made the slow evolution of life on Earth possible. The uncontrolled nuclear fusion and fission of supernova explosions is far too sporadic to supply the constant and eternal energy output that stars need to support the evolution of life.

The composition of the sun is not mostly Hydrogen and Helium as cosmologists have long imagined. The composition of its interior elements is similar to the ratio of chemical elements in Earth or the isotope ratios of in the cosmic rays. The steady energy/mass photon output of the sun by the steady conversion of the electron's rotational energy/mass into the linear energy/mass of photons.

Today, free neutrons are unstable and split into electrons and protons after about nineteen minutes because the buildup of linear energy/mass in their structures causes them to decay. When neutrons are contained within the structures of atomic nuclei, they continue to increase in linear energy/mass output but before it can build up enough to make them decay, they are able to transfer the extra energy to the whole structural dynamics of the nucleus. The nucleus then uses its electrons to emit this excess linear energy/mass into space with photons.

All atoms containing neutrons are constantly increasing in linear energy/mass but are able to use their electrons to release this excess energy with pho-

tons. This cannot happen with ionized nuclei in deep space that are far away from any electrons. Without electrons to create photons, atomic nuclei have no way to release the linear energy/mass constantly building up within their structures. Ionized atomic nuclei moving through deep space devoid of electrons can build up tremendous amounts of linear energy/mass within the interior of their circlon shaped bodies. After billions of years, this increasing quantity of linear $e/m = cc$ within a nucleus can greatly surpass the quantity of its constant rotational $e/m = CC$.

This means that a stable ionized Gold-197 nucleus that has been traveling through empty space since its creation would have built up the energy equivalent of a tiny nuclear bomb by the time it arrives at Earth's cosmic ray detectors. Think what would happen if a tiny gold nugget or a diamond crystal with millions of nuclei were to hit the detectors. These nuclear "cosmic rays" do not have to be traveling at high velocity to deliver their tremendous amounts of internal linear energy/mass. *Cosmic rays travel at far less than the speed of light and probably all come from the vicinity of the Milky Way because atoms traveling between galaxies would be highly unlikely.*

Conclusions

Everything we measure in the cosmos from the 2.7°K CBR and the Hubble constant to the size of dinosaur bones and the energy of cosmic rays proves conclusively that the electron/proton mass ratio has been evolving since the beginning of time and that the motion of this ratio is the only true measure of absolute time in the cosmos.

Historic measurements of the electron/proton mass ratio began just after the beginning of the last century and are now beginning to show, that today, the ratio has increased from 1/1836.0 to 1/1836.000?. With modern technology, we will someday be able to monitor the temporal movement of the e/p mass ratio on a yearly basis or maybe even monthly.

As the electron's energy/mass = CC continues to decrease, the increasing momentum and ionization energy of atoms is continually being converted into photons with more energy and shorter wavelengths. This causes both campfires and stars to get hotter and warm the cosmos. However, the universe's total increase in photon energy and temperature from radiating stars is still only a tiny fraction of the original photon energy and 2.7°K temperature of the Cosmic Blackbody Radiation.

Reverse Entropy

Dynamic interactions within atoms are constantly combining units of rotational energy/mass with equal units of linear energy/mass to emit photons. As matter cools by emitting photons, atoms emit and absorb photons with decreasing momentum, energy, and longer and longer wavelengths. This is the second law of thermodynamics. Cosmic entropy is photon energy lost to the void in

longer and longer wavelengths. The universe's cooling effect of entropy is balanced by the warming effect of the decreasing Bohr radius causing decreasing photon wavelengths and increasing momentum and energy. If these warming and cooling effects are nearly equal, it is quite possible that the total entropy of the cosmos may actually be zero.

This whole process of cosmic evolution, presented here, was accomplished with the absolute conservation of energy/mass, momentum, and angular momentum. At today's stage of the Living Cosmos, it contains the same total quantity of energy/mass, momentum and angular momentum that it had at its beginning. The only difference is that during the process of electron evolution, almost half of the original anti-atom's rotation energy/mass $e/m = CC$ has been converted into the linear energy/mass $e/m = c^2$ of atoms, photons $e/m = cC$, and the momentum mv of moving atoms $e/m = c^2/2$.

This model of cosmic evolution for the observed universe was accomplished without any departures from the rules of quantum mechanics or electrodynamics as they apply to the principles and conservation laws of the scientific method of experimental measurement.

Big Bang's Seven Unmeasured Imaginary Paradoxes

1. *The 1/1836 electron/proton mass ratio is an absolute and eternal constant.*

This is Big Bang theory's fatal metaphysical assumption. This idea has been left completely unquestioned by the hundreds if not thousands of so called theoretical physicists that have been working on Big Bang theory. If this assumption is rejected, then all of the other Big Bang paradoxes simply disappear. In the Living Cosmos the energy/mass = CC of the electron is constantly decreasing. This effect provides the mechanism for most of the unexpected phenomena that are observed in the cosmos.

2. *The universe was largely formed by two consecutive instants in time.*

In the first instant, the singularity appeared from nowhere and in the next instant, matter and energy created by the singularity were evenly spread out into space for billions of light years in all directions. These two imaginary events violate every principle and conservation law in the standard model of physics. In the Living Cosmos these two events are standard quantum mechanical interactions.

3. *Imaginary pure massless singularity energy that is not a photon.*

Unlike a photon, this pure energy has no relationship between momentum and angular momentum. This Big Bang idea of unstructured massless energy is in direct conflict with its assumption of massless photon angular momentum $I\omega = m\lambda c/2\pi$ and massless photon energy $e = mc^2$. In the Living Cosmos, there is

no “pure” energy that is separate from mass. A photon has two separate equal energies $e/m = cC$. These are the rotational and linear energies of its mass.

4. *All matter in the universe was created without any detectable antimatter.*

The conservation of charge is a fundamental law of quantum mechanics. In the Living Cosmos, quantities of matter and antimatter particles have always been equal.

5. *The cooling of the Cosmic Blackbody Photons from 3000° K to 2.7° K.*

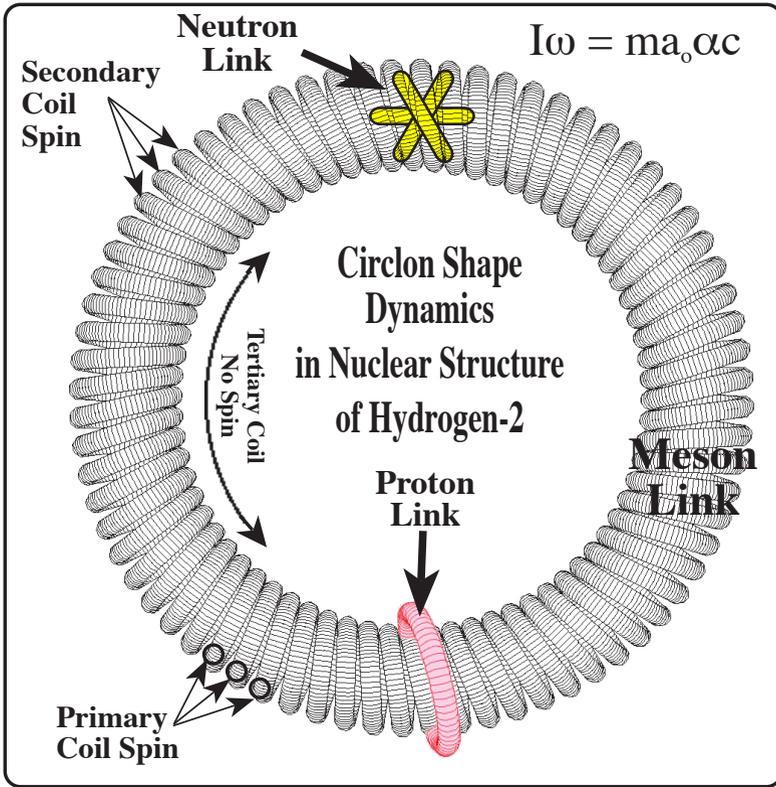
This is done simply by imagining that 99.9% of the photon momentum $p = mc$ and energy $e = mcC$ ever produced in the universe has simply disappeared without a trace. Big Bang theorists are desperate to solve this paradox because without the cooling effect of their imaginary expanding space, the whole universe would be far too hot for any type of life to exist. There are no measured parameters in electrodynamics that would allow a photon to cool as it spun at C and traveled through the void at c . In the Living Cosmos, the temperature of the Cosmic Blackbody Radiation has always been about 2.7° K.

6. *The gravitational accumulation of widely dispersed gold atoms into nuggets and then the rest of the atoms into stars, galaxies, and great walls of galaxies.*

Neither Newton’s nor Einstein’s gravities have any possible solution for the fractal separation in scale of cosmic structure. In the Living Cosmos, the gravitational interaction plays no part in the fractal accumulation of matter into stars and galaxies. It was the weak nuclear interaction that ruled the division and fractal accumulation of the cosmic matter.

7. *The Hubble red shift is caused by galaxies expanding into space at speeds approaching the speed of light.*

The source and nature of the tremendous amount of momentum and energy $e = mv^2/2$ required to accelerate the whole universe to these velocities is far beyond anyone’s kinematic imagination, other to say it is left over massless singularity energy. In the Living Cosmos, the Hubble shift requires no additional energy and is just a simple tiny electrodynamic effect of the evolving electron/proton mass ratio.



Tertiary Coil Energy/Mass = 0
 Secondary Coil Energy/Mass = $e/m = c$
 Primary Coil Energy/Mass = $e/m = c$
 Total Circlon Shape Energy/Mass $e/m = c^2$

Fine Structure Ratio Today $\alpha = 1/137$
 Primary Coil Radius = 1
 Secondary Coil Radius = $1/\sqrt{\alpha} = 11.7$
 Tertiary Coil Radius = $1/\alpha = 137$

Living Universe Equations

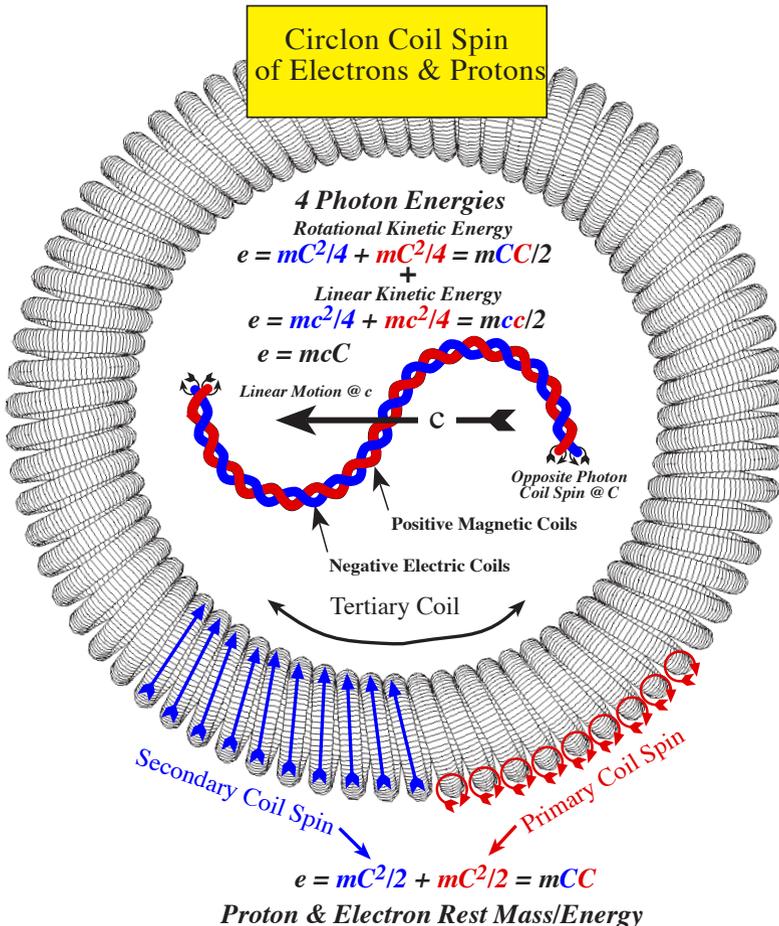
- Electron/Proton Mass Ratio Today--- $m_e/m_p = 1/1836$
- Bohr radius ----- $a_0 = \lambda_\infty\alpha/4\pi$
- Electron Angular Momentum ----- $I\omega = m_e a_0 \alpha c$
- Fine Structure Constant ----- $\alpha = 4\pi a_0 / \lambda_\infty$
- Photon Energy/Mass ----- $e/m = cC$
- Hydrogen Ionization Photon ----- $\lambda_\infty = 4\pi a_0 / \alpha$
- Photon Momentum ----- $p = mc$
- Photon Angular Momentum ----- $I\omega = m\lambda c/2\pi$
- Electron Momentum ----- $p = m_e v$
- Electron Angular Momentum ----- $I\omega = m_e a_0 \alpha c$
- Electron kinetic energy ----- $e = m_e v^2/2$
- Neutron Stability Number ----- $\#_{ns} = m_p/m_e\sqrt{\alpha}$

The True Meaning of $E = MC^2$

The energies of the electron and proton are divided into two opposite rotational energies. The rotational kinetic energy of the primary coils and the opposite rotational kinetic energy of the secondary coils.

The energy of the photon is divided into four separate but equal kinetic energies. The linear energy of its magnetic coil mass, the linear energy of the electric coil mass, the rotational energy of the magnetic coil mass, and the rotational energies of the electric mass body. The two linear coil energies are Doppler shifted by the relative motion of the observer but the two opposite rotational energies of the electric and magnetic coils are absolute and are measured to be the same in all moving frames.

The two separate but equal rotational energies of the primary and secondary coils of the electron and proton are absolute and measured to be the same by all moving observers. When electrons and protons are accelerated, their linear energy/mass is measured to increase but their rotational energy/mass remains constant.



Creation Spiral Powers of Two

This bifurcation equation begins at octal 2¹ when the evolving electron/proton mass ratio was greater than one.

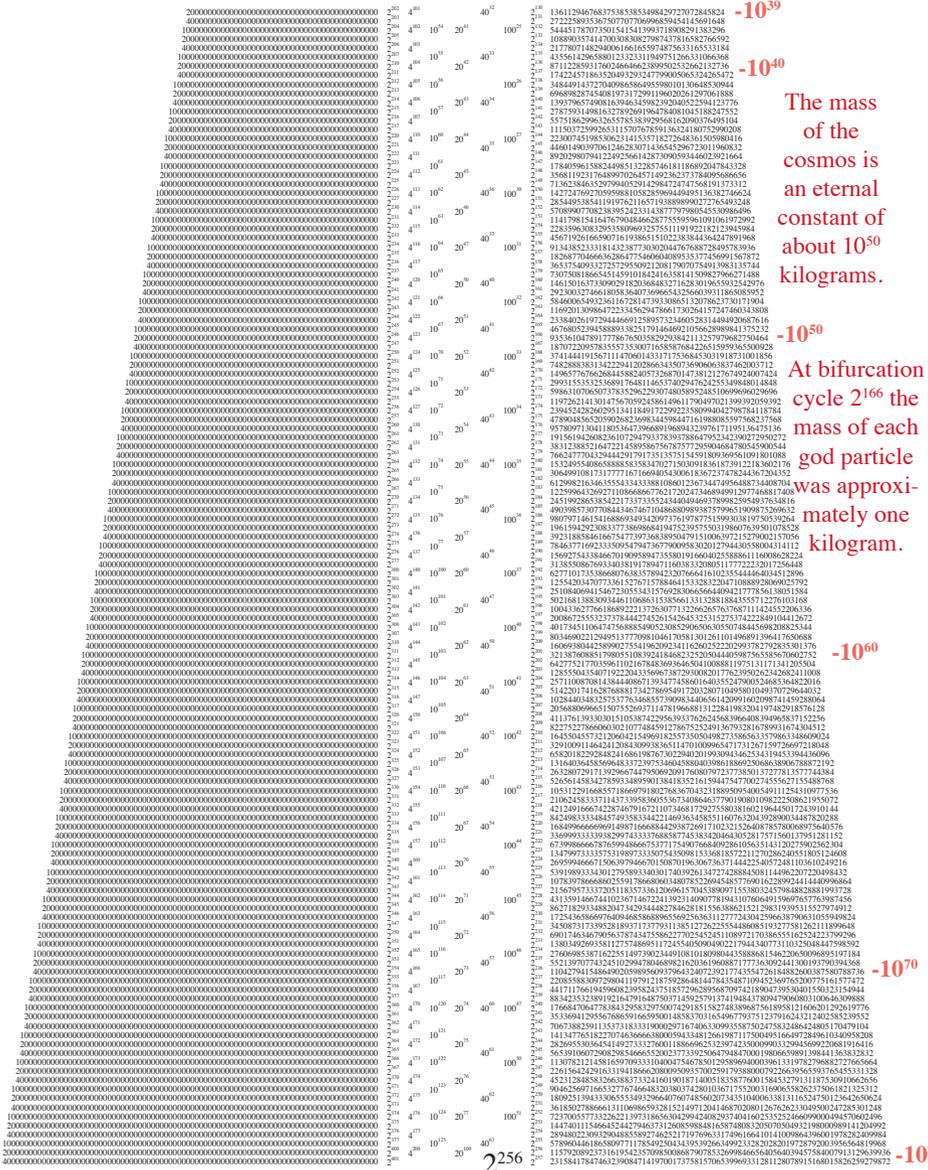
$$M_E/M_P = 1/1-$$

Octal Powers of Two

2	4 ¹	10 ¹	20 ¹		
4	4 ²	10 ²	20 ²	40 ¹	
8	4 ³	10 ³	20 ³	40 ²	100 ¹
16	4 ⁴	10 ⁴	20 ⁴	40 ³	100 ²
32	4 ⁵	10 ⁵	20 ⁵	40 ⁴	100 ³
64	4 ⁶	10 ⁶	20 ⁶	40 ⁵	100 ⁴
128	4 ⁷	10 ⁷	20 ⁷	40 ⁶	100 ⁵
256	4 ⁸	10 ⁸	20 ⁸	40 ⁷	100 ⁶
512	4 ⁹	10 ⁹	20 ⁹	40 ⁸	100 ⁷
1024	4 ¹⁰	10 ¹⁰	20 ¹⁰	40 ⁹	100 ⁸
2048	4 ¹¹	10 ¹¹	20 ¹¹	40 ¹⁰	100 ⁹
4096	4 ¹²	10 ¹²	20 ¹²	40 ¹¹	100 ¹⁰
8192	4 ¹³	10 ¹³	20 ¹³	40 ¹²	100 ¹¹
16384	4 ¹⁴	10 ¹⁴	20 ¹⁴	40 ¹³	100 ¹²
32768	4 ¹⁵	10 ¹⁵	20 ¹⁵	40 ¹⁴	100 ¹³
65536	4 ¹⁶	10 ¹⁶	20 ¹⁶	40 ¹⁵	100 ¹⁴
131072	4 ¹⁷	10 ¹⁷	20 ¹⁷	40 ¹⁶	100 ¹⁵
262144	4 ¹⁸	10 ¹⁸	20 ¹⁸	40 ¹⁷	100 ¹⁶
524288	4 ¹⁹	10 ¹⁹	20 ¹⁹	40 ¹⁸	100 ¹⁷
1048576	4 ²⁰	10 ²⁰	20 ²⁰	40 ¹⁹	100 ¹⁸
2097152	4 ²¹	10 ²¹	20 ²¹	40 ²⁰	100 ¹⁹
4194304	4 ²²	10 ²²	20 ²²	40 ²¹	100 ²⁰
8388608	4 ²³	10 ²³	20 ²³	40 ²²	100 ²¹
16777216	4 ²⁴	10 ²⁴	20 ²⁴	40 ²³	100 ²²
33554432	4 ²⁵	10 ²⁵	20 ²⁵	40 ²⁴	100 ²³
67108864	4 ²⁶	10 ²⁶	20 ²⁶	40 ²⁵	100 ²⁴
134217728	4 ²⁷	10 ²⁷	20 ²⁷	40 ²⁶	100 ²⁵
268435456	4 ²⁸	10 ²⁸	20 ²⁸	40 ²⁷	100 ²⁶
536870912	4 ²⁹	10 ²⁹	20 ²⁹	40 ²⁸	100 ²⁷
1073741824	4 ³⁰	10 ³⁰	20 ³⁰	40 ²⁹	100 ²⁸
2147483648	4 ³¹	10 ³¹	20 ³¹	40 ³⁰	100 ²⁹
4294967296	4 ³²	10 ³²	20 ³²	40 ³¹	100 ³⁰
8589934592	4 ³³	10 ³³	20 ³³	40 ³²	100 ³¹
17179869184	4 ³⁴	10 ³⁴	20 ³⁴	40 ³³	100 ³²
34359738368	4 ³⁵	10 ³⁵	20 ³⁵	40 ³⁴	100 ³³
68719476736	4 ³⁶	10 ³⁶	20 ³⁶	40 ³⁵	100 ³⁴
137438953472	4 ³⁷	10 ³⁷	20 ³⁷	40 ³⁶	100 ³⁵
274877906944	4 ³⁸	10 ³⁸	20 ³⁸	40 ³⁷	100 ³⁶
549755813888	4 ³⁹	10 ³⁹	20 ³⁹	40 ³⁸	100 ³⁷
1099511627776	4 ⁴⁰	10 ⁴⁰	20 ⁴⁰	40 ³⁹	100 ³⁸
2199023255552	4 ⁴¹	10 ⁴¹	20 ⁴¹	40 ⁴⁰	100 ³⁹
4398046511104	4 ⁴²	10 ⁴²	20 ⁴²	40 ⁴¹	100 ⁴⁰
8796093222208	4 ⁴³	10 ⁴³	20 ⁴³	40 ⁴²	100 ⁴¹
1759218604416	4 ⁴⁴	10 ⁴⁴	20 ⁴⁴	40 ⁴³	100 ⁴²
3518437208832	4 ⁴⁵	10 ⁴⁵	20 ⁴⁵	40 ⁴⁴	100 ⁴³
70368744177664	4 ⁴⁶	10 ⁴⁶	20 ⁴⁶	40 ⁴⁵	100 ⁴⁴
140737488355328	4 ⁴⁷	10 ⁴⁷	20 ⁴⁷	40 ⁴⁶	100 ⁴⁵
281474976710656	4 ⁴⁸	10 ⁴⁸	20 ⁴⁸	40 ⁴⁷	100 ⁴⁶
562949953421312	4 ⁴⁹	10 ⁴⁹	20 ⁴⁹	40 ⁴⁸	100 ⁴⁷
1125899906842624	4 ⁵⁰	10 ⁵⁰	20 ⁵⁰	40 ⁴⁹	100 ⁴⁸
2251799813685248	4 ⁵¹	10 ⁵¹	20 ⁵¹	40 ⁵⁰	100 ⁴⁹
45035997370496	4 ⁵²	10 ⁵²	20 ⁵²	40 ⁵¹	100 ⁵⁰
9017199254749992	4 ⁵³	10 ⁵³	20 ⁵³	40 ⁵²	100 ⁵¹
18034398509481984	4 ⁵⁴	10 ⁵⁴	20 ⁵⁴	40 ⁵³	100 ⁵²
36028797018963968	4 ⁵⁵	10 ⁵⁵	20 ⁵⁵	40 ⁵⁴	100 ⁵³
72057594037927936	4 ⁵⁶	10 ⁵⁶	20 ⁵⁶	40 ⁵⁵	100 ⁵⁴
1441158078537872	4 ⁵⁷	10 ⁵⁷	20 ⁵⁷	40 ⁵⁶	100 ⁵⁵
28823037615171744	4 ⁵⁸	10 ⁵⁸	20 ⁵⁸	40 ⁵⁷	100 ⁵⁶
576460752303243888	4 ⁵⁹	10 ⁵⁹	20 ⁵⁹	40 ⁵⁸	100 ⁵⁷
115292150406846976	4 ⁶⁰	10 ⁶⁰	20 ⁶⁰	40 ⁵⁹	100 ⁵⁸
230584309213693952	4 ⁶¹	10 ⁶¹	20 ⁶¹	40 ⁶⁰	100 ⁵⁹
461168618427387904	4 ⁶²	10 ⁶²	20 ⁶²	40 ⁶¹	100 ⁶⁰
9223372036854775808	4 ⁶³	10 ⁶³	20 ⁶³	40 ⁶²	100 ⁶¹
18446744073709516	4 ⁶⁴	10 ⁶⁴	20 ⁶⁴	40 ⁶³	100 ⁶²
3689348814749101612	4 ⁶⁵	10 ⁶⁵	20 ⁶⁵	40 ⁶⁴	100 ⁶³
73786976294838206464	4 ⁶⁶	10 ⁶⁶	20 ⁶⁶	40 ⁶⁵	100 ⁶⁴
14757395289676412928	4 ⁶⁷	10 ⁶⁷	20 ⁶⁷	40 ⁶⁶	100 ⁶⁵
29514790517935282856	4 ⁶⁸	10 ⁶⁸	20 ⁶⁸	40 ⁶⁷	100 ⁶⁶
590295810538705651712	4 ⁶⁹	10 ⁶⁹	20 ⁶⁹	40 ⁶⁸	100 ⁶⁷
1180591620717411303424	4 ⁷⁰	10 ⁷⁰	20 ⁷⁰	40 ⁶⁹	100 ⁶⁸
236118324434822060848	4 ⁷¹	10 ⁷¹	20 ⁷¹	40 ⁷⁰	100 ⁶⁹
4722366482869645218696	4 ⁷²	10 ⁷²	20 ⁷²	40 ⁷¹	100 ⁷⁰
944473296572920427392	4 ⁷³	10 ⁷³	20 ⁷³	40 ⁷²	100 ⁷¹
18889465931478580854784	4 ⁷⁴	10 ⁷⁴	20 ⁷⁴	40 ⁷³	100 ⁷²
37778931862957161709568	4 ⁷⁵	10 ⁷⁵	20 ⁷⁵	40 ⁷⁴	100 ⁷³
7555786372914323419136	4 ⁷⁶	10 ⁷⁶	20 ⁷⁶	40 ⁷⁵	100 ⁷⁴
15111527451828646838272	4 ⁷⁷	10 ⁷⁷	20 ⁷⁷	40 ⁷⁶	100 ⁷⁵
3022345490365729676544	4 ⁷⁸	10 ⁷⁸	20 ⁷⁸	40 ⁷⁷	100 ⁷⁶
6044629980731458735088	4 ⁷⁹	10 ⁷⁹	20 ⁷⁹	40 ⁷⁸	100 ⁷⁷
1208925819614629174706176	4 ⁸⁰	10 ⁸⁰	20 ⁸⁰	40 ⁷⁹	100 ⁷⁸
2417851639229258349412352	4 ⁸¹	10 ⁸¹	20 ⁸¹	40 ⁸⁰	100 ⁷⁹
483570327854669824704	4 ⁸²	10 ⁸²	20 ⁸²	40 ⁸¹	100 ⁸⁰
967140656917033397649408	4 ⁸³	10 ⁸³	20 ⁸³	40 ⁸²	100 ⁸¹
1934281313834066795298816	4 ⁸⁴	10 ⁸⁴	20 ⁸⁴	40 ⁸³	100 ⁸²
386856222766813590997632	4 ⁸⁵	10 ⁸⁵	20 ⁸⁵	40 ⁸⁴	100 ⁸³
7737125245533267181195264	4 ⁸⁶	10 ⁸⁶	20 ⁸⁶	40 ⁸⁵	100 ⁸⁴
154742504910672534362390328	4 ⁸⁷	10 ⁸⁷	20 ⁸⁷	40 ⁸⁶	100 ⁸⁵
309485009821345068724781056	4 ⁸⁸	10 ⁸⁸	20 ⁸⁸	40 ⁸⁷	100 ⁸⁶
61897001964269017449562112	4 ⁸⁹	10 ⁸⁹	20 ⁸⁹	40 ⁸⁸	100 ⁸⁷
1237940190285380274899124224	4 ⁹⁰	10 ⁹⁰	20 ⁹⁰	40 ⁸⁹	100 ⁸⁸
2475880078570760549798248448	4 ⁹¹	10 ⁹¹	20 ⁹¹	40 ⁹⁰	100 ⁸⁹
49517601571452109959646896	4 ⁹²	10 ⁹²	20 ⁹²	40 ⁹¹	100 ⁹⁰
990352031428340219919299792	4 ⁹³	10 ⁹³	20 ⁹³	40 ⁹²	100 ⁹¹
198074062856608439835987584	4 ⁹⁴	10 ⁹⁴	20 ⁹⁴	40 ⁹³	100 ⁹²
3961408125713216879671975168	4 ⁹⁵	10 ⁹⁵	20 ⁹⁵	40 ⁹⁴	100 ⁹³
79228162514264337593543990336	4 ⁹⁶	10 ⁹⁶	20 ⁹⁶	40 ⁹⁵	100 ⁹⁴
15845635028528675187087900672	4 ⁹⁷	10 ⁹⁷	20 ⁹⁷	40 ⁹⁶	100 ⁹⁵
31691265005707530374175801344	4 ⁹⁸	10 ⁹⁸	20 ⁹⁸	40 ⁹⁷	100 ⁹⁶
633825300114114700748351602688	4 ⁹⁹	10 ⁹⁹	20 ⁹⁹	40 ⁹⁸	100 ⁹⁷
12676506022829401496703205376	4 ¹⁰⁰	10 ¹⁰⁰	20 ¹⁰⁰	40 ⁹⁹	100 ⁹⁸
253530120456458028993406410752	4 ¹⁰¹	10 ¹⁰¹	20 ¹⁰¹	40 ¹⁰⁰	100 ⁹⁹
50706024091291769868812821504	4 ¹⁰²	10 ¹⁰²	20 ¹⁰²	40 ¹⁰¹	100 ¹⁰⁰
1014120480182583521197362564008	4 ¹⁰³	10 ¹⁰³	20 ¹⁰³	40 ¹⁰²	100 ¹⁰¹
20282409636516704239425286016	4 ¹⁰⁴	10 ¹⁰⁴	20 ¹⁰⁴	40 ¹⁰³	100 ¹⁰²
405648192703340847894502572032	4 ¹⁰⁵	10 ¹⁰⁵	20 ¹⁰⁵	40 ¹⁰⁴	100 ¹⁰³
8112963844606681695789005144064	4 ¹⁰⁶	10 ¹⁰⁶	20 ¹⁰⁶	40 ¹⁰⁵	100 ¹⁰⁴
16225927682921336391578010288128	4 ¹⁰⁷	10 ¹⁰⁷	20 ¹⁰⁷	40 ¹⁰⁶	100 ¹⁰⁵
3245185365848202103239706336760768	4 ¹⁰⁸	10 ¹⁰⁸	20 ¹⁰⁸	40 ¹⁰⁷	100 ¹⁰⁶
64903710731685345566312041125212	4 ¹⁰⁹	10 ¹⁰⁹	20 ¹⁰⁹	40 ¹⁰⁸	100 ¹⁰⁷
129807421463370690713262408205024	4 ¹¹⁰	10 ¹¹⁰	20 ¹¹⁰	40 ¹⁰⁹	100 ¹⁰⁸
259614842926741381426248164610048	4 ¹¹¹	10 ¹¹¹	20 ¹¹¹	40 ¹¹⁰	100 ¹⁰⁹
51923685834827628530496329220096	4 ¹¹²	10 ¹¹²	20 ¹¹²	40 ¹¹¹	100 ¹¹⁰
10384591717069652570699265840192	4 ¹¹³	10 ¹¹³	20 ¹¹³	40 ¹¹²	100 ¹¹¹
20769187434129310514121985316880384	4 ¹¹⁴	10 ¹¹⁴	20 ¹¹⁴	40 ¹¹³	100 ¹¹²
4153837486827862102813970633760768	4 ¹¹⁵	10 ¹¹⁵	20 ¹¹⁵	40 ¹¹⁴	100 ¹¹³
8307674973657242056487944126725136	4 ¹¹⁶	10 ¹¹⁶	20 ¹¹⁶	40 ¹¹⁵	100 ¹¹⁴
16615349947311448411297588235943072	4 ¹¹⁷	10 ¹¹⁷	20 ¹¹⁷	40 ¹¹⁶	100 ¹¹⁵
332366989462389824000000000000000	4 ¹¹⁸	10 ¹¹⁸	20 ¹¹⁸	40 ¹¹⁷	100 ¹¹⁶
6646139978927937645190530140172288	4 ¹¹⁹	10 ¹¹⁹	20 ¹¹⁹	40 ¹¹⁸	100 ¹¹⁷
132922799578401587290380760280344576	4 ¹²⁰	10 ¹²⁰	20 ¹²⁰	40 ¹¹⁹	100 ¹¹⁸
265845991969831745807614120356089152	4 ¹²¹	10 ¹²¹	20 ¹²¹	40 ¹²⁰	100 ¹¹⁹
53169119831396634916122824112137804	4 ¹²²	10 ¹²²	20 ¹²²	40 ¹²¹	100 ¹²⁰
1063382396627932698323045622824275608	4 ¹²³	10 ¹²³	20 ¹²³		

Octal and Decimal Calculations of 256 Gods Particle Bifurcations

In an effort to be as exacting as possible in this mathematical equation of antineutron bifurcation, I have included the complete calculation that shows the exact number of god particles in the universe at every stage in the bifurcation process of particle creation. To maintain mathematical purity, I have included both the natural octal bifurcation math on the left and the more complex ten fingered decimal calculations on the right.



The mass of the cosmos is an eternal constant of about 10⁵⁰ kilograms.

At bifurcation cycle 2¹⁶⁶ the mass of each god particle was approximately one kilogram.

10⁶⁰

10⁷⁰

Proton mass = 1.67 x 10⁻²⁷kg 2²⁵⁶ = 1.158 x 10⁷⁷

The Cosmic Components of Measurement

The Living Cosmos equations listed below illustrate the parameters in measured mass, space, time, and gravity relationships between electrons, protons, neutrons, and photons as calculated with the parameters of the circlon shape interpretation of standard model quantum mechanics and electrodynamics. These well defined parameters of atomic force and motion are all absolutely conserved in the Living Cosmos but are only sporadically conserved in Big Bang theories.

Energy/Mass of motion $e/m = vc$

Energy/Mass of photons $e/m = cC$

Energy/Mass of Atoms $e/m = CC$

Current Electron/Proton mass ratio $e/p = 1/1836$

Current Circlon Fine Structure Dimension $\alpha = I\omega / m_e a_0 C = 1/137$

Current Bohr Radius $a^0 = I\omega / m_e \alpha C = 5.29 \times 10^{-11}$ meter

Physical Angular Momentum $I\omega = mvr$

Electron Angular Momentum $I\omega = m_e a_0 \alpha C = 1.055 \times 10^{-34}$ kg m

Photon Angular Momentum $I\omega = m\lambda C / 2\pi = 1.055 \times 10^{-34}$ kg m

Physical Momentum $p = mv$

Photon Momentum $p = mc$

Physical Energy $e = mv^2/2$

Photon Energy $e = mc^2/2 + mC^2/2 = mcC$

Nuclear Energy $e = mCC$

Physical Mass $m = e/v^2/2$

Photon Mass $m = e/cC$

Kinetic Mass $m' = M / \sqrt{1-v^2/c^2}$

Kinetic Time $t' = T / \sqrt{1-v^2/c^2}$

$$e = mv^2/c^2/2 + m'v^2/c^2/2 = mvv$$