

Copyright, John R. Ross 2016

Permission granted to freely distribute this chart
for non-commercial purposes if unedited and
copied in full, including this notice.

**This posting is based on my Theory of Everything explained in:
TRONNIES – THE SOURCE OF THE COULOMB FORCE**

PRELIMINARY PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION

A BETTER MODEL OF THE COSMOS

A REPLACEMENT FOR THE STANDARD MODEL OF PARTICLE PHYSICS AND EINSTEIN RELATIVITY

Request for Grant

This is a preliminary proposal for a grant to confirm the accuracy of a proposed replacement model for the Standard Model of Particle Physics and Einstein Relativity. The proposed replacement model has been developed by me over a period of more than 13 years with a lot of assistance through conversations with skeptical scientists at Trex Enterprises Corporation where I work as Intellectual Property Counsel. Trex is a research and development company, with 62 employees, mostly scientists. I call my model “The Ross Model”. My model is described in my book: TRONNIES – The Source of the Coulomb Force (hereinafter “TRONNIES”). A copy is attached and it is available at amazon.com. The model is based on the existence of two point particles with charges of plus e and minus e (respectively equal to the net charge of the positron and the electron).

These point particles were first recognized by me about 13 years ago and I call the particles, “tronnies”. Tronnies have no mass, no energy and no size what-so-ever. They are each a point focus of Coulomb forces. Their only property is their charge of plus or minus e . However, because of its charge each tronnie carries the Coulomb force. Tronnies are made from nothing (they are each one half of a point); but everything in the Cosmos (including our Universe) is made from tronnies or things made from tronnies. My definition of the Cosmos is “everything that exists, has existed or will exist in the future”. According to my model, our Universe is only a very a small part of the Cosmos in both time and space, and is a successor to a long series of universes and was born about 13.7 billion earth years ago with the Big Bang explosion of a Monster Black Hole that had consumed most of our predecessor universe. On the other hand the age of

the Cosmos is probably several trillion earth years old, and its birth corresponds to the initial separation of points of the empty space into plus and minus tronnies.

Two minus tronnies and one plus tronnie make an electron and two plus tronnies and one minus tronnie make a positron. Entrons (also first recognized by me) are each comprised of one plus tronnie and one minus tronnie. Entrons range in size, energy and mass over 17 orders of magnitude and provide all of the mass of the Cosmos, except for the masses of the electrons and positrons which are made in pair production from a combination of three special entrons one of which is the 1.02 MeV gamma ray entron and a second is the entron that carries gravity from Black Holes throughout our Universe. My book, TRONNIES has been available at amazon.com for more than one year, but has received very little attention because magazines have refused to support a model of the Cosmos that is almost completely inconsistent with the Standard Model and Einstein Relativity.

The Standard Model and Einstein Relativity Needs to be Replaced

Most if not all of the basic features of the Standard Model and Einstein Relativity are seriously in error according to my model. Some major errors are:

1) There are no quarks, 2) There are no gluons, 3) There are no fractional charges, 4) There are no neutrinos, 5) There are no virtual particles, 6) There are no neutrons in stable atoms, 7) There is no Higgs Field and no Higgs Bosons, 8) Electrons and positrons are not point particles, 9) There is no symmetry breaking, 10) There is no strong force and no weak force, 11) Photons have a mass equivalent to their energy, 12) There is no speed-of-light speed limit, 13) Space is not curved, space is nothing it cannot be curved, 14) Time and space are separate concepts, 15) Time does not slow down at high speeds, and 16) Our Universe was not created from a singularity,

The Standard Model and Einstein Relativity do not provide a good explanation of:

1) The creation of the Cosmos or our Universe, 2) Nuclear spin, 3) Gravity, 4) Anti-gravity, 5) Magnetism, 6) Beta decay, 7) Pair production and electron-positron annihilation, 8) Faster-than-light galactic speed, 9) Universe inflation, 10) Dark

matter and dark energy, and 11) The internal structure of photons, electrons, positrons, protons, deuterons, tritium, alpha particles and the nuclei of all atoms.

Basic Concepts of the Ross Model

The Ross Model is a theory of everything. With my recognition of the tronnies, and entrans, I am able to simply explain most if not all of the currently unexplained observations of the Cosmos (including the unexplained observations referred to above of our Universe) and to correct all of the errors in the Standard Model and Einstein Relativity.

Tronnies

- 1) Single-charged particles must be point particles or made from point particles; otherwise Coulomb forces would blow the single-charged particles apart.
- 2) Tronnies are point particles, each with a charge of plus or minus e , equal to the net electron charge or the net charge of the positron.
- 3) Tronnies have no mass, no volume and no energy.
- 4) Everything in the Cosmos is made from tronnies or things made from tronnies.
- 5) Tronnies can be thought of as equal and opposite halves of points of empty space.
- 6) Tronnies repel like tronnies and attract unlike tronnies by reason of their Coulomb forces; the attraction and repulsion is at the speed of light.
- 7) Each tronnie also repels itself, so it cannot possibly travel more slowly than the speed of light.
- 8) Instead tronnies travel in perfect circles in electrons, positrons and entrans at a speed of $\pi c/2$ while their Coulomb forces travel at a speed of c .
- 9) The result is that each tronnie is always at a point focus of its own Coulomb forces coming across the diameters of the circle at the speed of light.
- 10) After passing through the point (that is the tronnie), the Coulomb forces expand out from each tronnie in all directions, giving each tronnie its charge,

giving the electron and the positron their net charges of minus and plus e and giving the entron and the photon their neutral charges.

11) Each tronnie is traveling along the circumference of a circle and its Coulomb forces are traveling across the diameter of the circle.

12) The Standard Model requires 17 subatomic particles to make a Cosmos; the Ross Model requires only one sub atomic particle and its anti-particle to make a Cosmos.

Entrons, Electrons and Positrons

1) Tronnies combine in threesomes to make an electron or a positron and they combine in twosomes to make an entron.

2) The entron is two-dimensional and the electron and the positron are three-dimensional.

3) The diameters of the tronnie's circles in the electron and positron are 0.9339×10^{-18} m, and the diameters of the tronnie's circles in the entrons range from 0.9339×10^{-18} m to a few centimeters.

4) Each photon is comprised of one entron traveling in a perfect circle at twice the speed of light and forward at the speed of light.

5) During every cycle (one wavelength) of each photon the entron's forward speed thus ranges from plus $3c$ to minus c .

6) Entrons according to the Ross Model represents all of the mass of the Cosmos (including our Universe) except for the masses of electrons and positrons which are made by the combination of three special entrons.

7) The existence of entrons was first recognized by me about 13 years ago.

Naked Electrons and Naked Positrons

1) A naked electron is comprised of three tronnie's, two minus tronnie's and one plus tronnie, each traveling within the electron at a speed of $\pi c/2$.

2) A naked positron is comprised of three tronnie's, two plus tronnie's and one minus tronnie, each traveling within the electron at a speed of $\pi c/2$.

- 3) Naked electrons and naked positrons are each self-propelled at a speed of 2.19 million meters per second giving these naked particles energies of $E = 1/2 mv^2 = 21.84 \times 10^{-19} \text{ J} = 13.6 \text{ eV}$,
- 4) "Naked" means these particles have not collected an entron which would give it electrical energy and extra mass.
- 5) The naked electrons and naked positrons are self-propelled by their own internal Coulomb forces.
- 6) In the naked electrons the plus tronnie travels in a $0.9339 \times 10^{-18} \text{ m}$ diameter circle and the two minus tronnies travel on opposite sides of the same size circle, circling through the center of the plus tronnie's circle, 90 degrees behind the plus tronnie (see FIG. 5 on page 56 of TRONNIES and my eight snap-shot Tinker-Toy® electron model on page 53).
- 7) The attractive Coulomb forces of the two minus tronnies pull the plus tronnie forward a little bit each cycle of the electron to give the naked electron its constant speed of 2.19 million meters per second.
- 8) Coulomb forces cancel in the diametrical directions.
- 9) The electron's spin is very real; its frequency is 1.606×10^{26} cycles per second, 160.6 trillion-trillion cycles per second.
- 10) Its angular momentum is $\frac{1}{2} h\text{-bar}$; see the attached paper entitled "Particle Spins are Real".
- 11) The properties and structure of the positrons are the same but opposite those of the electron.
- 12) There are an equal number of electrons and positrons in our Universe and in the Cosmos.
- 13) It is impossible to destroy an electron or a positron except by electron-positron annihilation.
- 14) Instantaneous internal Coulomb forces holding electrons and positrons together are in the range of about 265 million newtons (equal to the pull of earth gravity on a 59.57 million pound bolder), but these forces are balanced in diametrical directions.

15) Magnetic fields are comprised of naked electrons all traveling on synchronized paths at 2.19 million meters per second.

16) Orbital electrons are naked electrons, all traveling at 2.19 million meters per second in synchronized orbits around nuclei.

17) When orbiting electrons capture an entron with energy less than 13.6 eV, the two tronnies of the entron circle through the center of the electron's plus tronnie's circle in the same direction as the two minus tronnies in the electron, slowing down the electron.

18) The slower speed causes the electron to rise to a higher orbit out of synchronization with the lower orbit electrons.

19) When the entron escapes, the electron is now naked and its speed is increased back to 2.19 million meters per second and it is now back in synchronization with its brothers.

20) Naked electrons do not lose energy and fall into the nucleus of atoms because they have no energy that they can lose (their built in kinetic energy of 13.6 eV is part of the naked electron-they can't lose it).

21) Naked electrons are perpetual motion machines, so are naked positrons.

Pair Production and Electron-Positron Annihilation

1) Electrons and positrons are produced in a process called 'pair production'.

2) A 928 MeV entron (the neutrino entron), a 1.02 MeV gamma ray entron and a 1.12 KeV ultraviolet light entron (six total tronnies) are resonant with each other and combine in pair production to make an electron and a positron (six total tronnies).

3) The diameter of the 1.12 KeV *entron* is equal to the diameter of the 1.02 MeV *photon*; the diameter of the 1.02 MeV *entron* is equal to the diameter of the 928 MeV *photon*; and the diameter of the 928 MeV *entron* is equal to the diameters of the circles of the three tronnies in the electron and the diameters of the three tronnies in the positron.

4) When the entrons of these three photons combine, the result is a naked electron and a naked positron.

- 5) The resulting positron will quickly combine with an electron and both are annihilated.
- 6) The products of the annihilation are two 0.51 MeV gamma ray entrons which speed away as gamma ray photons and a 928 MeV neutrino entron which speeds away undetected.
- 7) Prior to the annihilation there appears to be a violation of conservation of mass-energy since the combined mass-energy of the electron and the positron is only about 1.02 MeV, whereas the mass of the neutrino entron is about 928 MeV.
- 8) However, it turns out that the explanation regarding the apparent missing mass become evident when the spins of the electron and the positron are examined.
- 9) For example, it is very well known that the spin (angular momentum) of the electron is the same as the spin of the proton which is about 1,837 times more massive than the electron.
- 10) For the electron (with a radius of about 0.9339×10^{-18} meters to have an angular momentum of $\frac{1}{2} \hbar$ (about $0.52725 \times 10^{-34} \text{ kgm}^2/\text{s}$), it needs a lot more mass than $9.109 \times 10^{-31} \text{ kg}$.
- 11) The reason for this apparent discrepancy is that electrons and positrons have a hidden mass which shows itself only when the angular momentum of the electron is measured. (See the attached paper entitled: "Particle Spins are Real".)

The Entron and the Photon

- 1) Each entron is two point particles (one plus tronnie and one minus tronnie), traveling at speeds of $\pi c/2$ on opposite sides of perfect circles with diameters ranging from about 0.9339×10^{-18} meters to a few centimeters.
- 2) Coulomb forces within the entron are focused at two points which two points are the plus and minus tronnies making the entron.
- 3) Repulsive and attractive forces, integrated around the entron, exactly balance in the diametrical direction.
- 4) Entrons provide all of the mass of the Cosmos, except for the mass of naked electrons and naked positrons.

- 5) There is one entron in every photon.
- 6) All photons have a mass which is the mass of its entron.
- 7) The entron within the photon travels in a circle at twice the speed of light and forward at the speed of light.
- 8) So the entron during each photon cycle (one wavelength) travels forward at speeds ranging from minus c to plus $3c$.
- 9) It is the entron circling within the photon at a speed of $2c$ that gives each photon its unique frequency, energy and wavelength.
- 10) The entron travels on the circumference of a circle within the photon at a speed of $2c$ while the photon travels forward at a speed of c .
- 11) The time t for the entron to complete one circle of length πd at a speed of $2c$ is the same as the time t for the photon to travel one wavelength λ at a speed of c , so $t = \pi d/2c = \lambda/c$.
- 12) Therefore, the diameter d of every photon in the Cosmos is $d = 2\lambda/\pi =$ about 0.6366λ , where λ is the wavelength of the photon.
- 13) The diameter d' of the entron in each photon is $d' = d/911$.
- 14) Entron diameters range from 0.9339×10^{-18} m for the neutrino entron to 3.77×10^{-10} m for the green light entron to 8.67×10^{-2} m for a typical radio wave photon (see Table V, Typical Photons in TRONNIES).

Energetic Electrons and Energetic Positrons

- 1) An energetic electron is a naked electron that has captured an entron giving the electron electrical energy and additional mass, entrons with energies less than 13.6 eV slow down the naked electron.
- 2) If the naked electron is an orbital electron; the energetic, slowed down electron will jump to a higher orbit.
- 3) Entrons give electrons their electrical energy (voltage), entrons are lost in resistors as heat energy and the electron becomes less energetic (reduced or zero volts).

- 4) Energetic electrons in an electrical coil push naked (zero volt) electrons out of a coil to produce magnetic fields of looping naked electrons.
- 5) Magnetic fields are naked electrons traveling in loops at 2.19 million meters per second.
- 6) An energetic positron is a naked positron that has captured an entron giving the positron electrical energy and additional mass.
- 7) In an anti-universe (if there are any) the energetic positron does the same work as the energetic electron does in our Universe.
- 8) In our Universe the extra positron in the proton gives the proton its plus charge permitting alpha particles and larger atomic nuclei to exist.

There is No Need for Neutrinos

- 1) There is no good description of neutrinos in the Standard Model; it is unclear whether Standard Model neutrinos have mass.
- 2) There is apparently no agreement as to the internal structure of neutrinos.
- 3) According to the Ross Model neutrinos do not exist.
- 4) There is evidence to support short-lived particles: tau particles and muon particles that quickly decay to electrons.
- 5) The Ross Model proposes that these tau and muon particles are combinations of electrons and one or two high energy entrons that are released as high-energy photons.
- 6) The Ross Model neutrino photon is a very high-energy photon (928 MeV); it is not a neutrino, it is called a "neutrino photon" because it is a very small neutral photon.
- 7) This photon and its entron is called the "God Particle" since it provides almost all of the mass of every proton, participates in pair production and carries gravity throughout each galaxy and ultimately throughout our Universe.

Symmetry in the Cosmos

Neutrino Entrons, Protons and Anti-Protons

- 1) The most massive, highest-energy entron is the neutrino entron with an energy of 928 MeV, a mass of 1.65×10^{-27} kg and a diameter of 0.9339×10^{-18} m.
- 2) The neutrino entron, due to its importance in the Cosmos, should be called "The God Particle".
- 3) The two tronniees of the neutrino entron circle with a frequency of 160.6 trillion-trillion cycles per second which is the same frequency as that of the electron and the positron.
- 4) A naked proton is:
 - (i) a naked electron that has captured the 1.65×10^{-27} kg neutrino entron creating a very energetic, very massive electron and
 - (ii) two naked positrons,all three particles are traveling in 0.85×10^{-15} m diameter circles at speeds of $\pi c/2$.
- 5) The two naked positrons are circling through the center of the very energetic electron circle 90 degrees behind the electron so as to always be in resonance with the Coulomb forces of the electron.
- 6) Integrated Coulomb forces in the proton exactly balance in the diametrical directions.
- 7) Internal Coulomb forces in the naked protons self-propel the naked proton at a speed of 4.02×10^7 m/s, giving the naked proton a natural kinetic energy of 6.24 MeV (6.66×10^{-13} J).
- 8) A naked anti-proton is:
 - (i) a naked positron that has captured the 1.65×10^{-27} kg neutrino entron and
 - (ii) two naked electrons all traveling in 0.85×10^{-15} m diameter circles at speeds of $\pi c/2$.
- 9) The two naked electrons of the anti-proton are circling through the center of the positron circle 90 degrees behind the positron.

10) Coulomb forces in the anti-proton also exactly balance in the diametrical directions.

11) Internal Coulomb forces in the naked anti-protons self-propel the naked anti-proton at a speed of 4.02×10^7 m/s, giving the naked anti-proton a natural kinetic energy of 6.24 MeV (6.66×10^{-13} J).

Energetic Protons

1) Naked protons capture gamma-ray entrans to become energetic protons which are slowed down enough to become hydrogen nuclei.

2) Some of these gamma ray entrans are released in fusion processes in stars when four hydrogen nuclei and two electrons are fused to produce alpha particles.

3) More of these entrans are release when alpha particles combine to make heavier nuclei up to iron-56 and nickel-60.

Structure of Atomic Nuclei

1) Nuclei of stable atoms heavier than berilium-8 (Be-8) are comprised of alpha particles, no more than three protons, up to 26 electrons and a variety of entrans.

2) Atomic nuclei are held together by Coulomb forces.

3) There is no strong force and no weak force.

4) A deuteron is tentatively modeled as two naked protons circling at a velocity of $\pi c/4$ and a single electron circling through the naked proton circle at a speed of πc ; each proton is repelled by its partner from across the diameter of the protons' circle and the high-energy, high-mass negative electron in each proton is attracted to the protons' positively charged partner via Coulomb force waves produced by the partner when the partner is at an angle of 53.515° measured from the diameter of the deuteron's circle, each of the two protons is also repelled by itself, Coulomb forces in the diametrical direction cancel and the deuteron has a spin of 1.

5) The He-3 nuclei is modeled as three naked protons circling at a velocity of $\pi c/2$ and a single electron circling through the naked protons circle at a speed of

πc (viewed from a distance) and $\pi c/2$ (relative to the proton) - the He-3 nucleus has a spin of $\frac{1}{2}$.

6) Alpha particles are modeled as four protons each circling at a speed of $\pi c/4$ with two electrons circling through the center of the proton circle at a speed of $\pi c/2$ making the alpha particle slightly negative on the outside and slightly positive on the inside.

7) With the protons traveling within the alpha particle at a speed of $\pi c/4$, the high-energy, high-mass, negatively charged electron in each of the four protons is attracted to the positively charged proton preceding it when the partner is at an angle of 53.515° (similar to the entron shown in FIG. 2B in TRONNIES) measured from the diameter of the deuteron's circle in the proton circle shown in FIG. 11 of TRONNIES, and each proton is repelled across the diameter of the alpha particle by positive Coulomb forces from the proton on the opposite side of the circle, and Coulomb forces in the diametrical direction cancel.

8) So while the protons within the alpha particle are circling with frequency of 0.4015 trillion-trillion cycles per second, the electrons are circling twice that fast.

9) The alpha particle has zero measured spin, because the spins of the two electrons exactly cancel the half-as-fast spins of the four protons.

10) C-12, O-16, Ne-20, Mg-24, Si-28, S-32, Ar-36 and Ca-40 nuclei are comprised of only alpha particles (3 for carbon-12, 4 for oxygen-16, 5 for neon-20, ... through 10 for Ca-40) and a variety of entrons, all of these nuclei (like alpha particles) have zero spin (Be-8 is comprised of two alpha particles but decays in about 7×10^{-17} second producing two alpha particles).

11) The rest of the Chart of the Nuclides are built up the same way, basically by combining alpha particles, with intermediate nuclides produced by adding up to (but no more than 3 protons) and up to 28 electrons; see the Ross Model paper entitled "Stable Isotope Chart" (attached and available at tronnies.com) which describes the internal structure of all stable nuclei and a few unstable nuclei, like Pu-239.

12) If a neutron is added to an isotope with 3 protons, the neutron will release its electron and the 4 protons will form themselves into another alpha particle, or at least two of these isotopes may fission; the U-235 isotope and the Pu-239 isotopes each contains 3 protons.

13) There are no neutrons in stable nuclei (neutrons have a half-life of 12.23 minutes), so all physics text books on earth that describe the structure of atomic nuclei will need to be revised.

Black Holes, Gravity, Dark Energy and Dark Matter

- 1) Black Holes consume portions of their galaxies in order to provide the gravity holding their galaxies together.
- 2) Anti-protons are created in Black Holes by the combination of a neutrino entron, a positron and two naked electrons.
- 3) Anti-protons and protons are quickly annihilated in Black Holes, with each annihilation releasing two neutrino entrons which ultimately escape the Black Holes as neutrino photons.
- 4) The neutrino entron in these neutrino photons, like entrons in all photons, travel backward at the speed of light once during each cycle of the neutrino photon.
- 5) Neutrino entrons have a diameter of 0.9339×10^{-18} m (i.e. one-half the size of an electron).
- 6) Most neutrino photons pass through everything they illuminate providing a reverse Coulomb force directed toward the source of the neutrino photons.
- 7) So neutrino entrons from Black Holes passing through stars apply a reverse force holding the stars of each galaxy in their orbits around the Black Hole at the center of each galaxy.
- 8) A small portion of the neutrino entrons in the neutrino photons are temporarily captured by electrons or positrons in objects such as stars, planets and moons and are released randomly to provide the gravity of the stars, planets and moons.
- 9) The consumption of one earth-size planet (with 3.6×10^{51} protons) per day by the Black Hole in the middle of the Milky Way galaxy would, at equilibrium,

produce a flux of neutrino photons at the position of our Solar System of 68,000 neutrino photons per second-meter squared (see Chapter XX of TRONNIES).

10) Each neutrino photon released carries away from the Black Hole energy of 928 MeV and mass of 1.65×10^{-27} kg (see Chapter XX of TRONNIES); nothing else leaves the Black Hole.

11) This represents a whole lot dark energy and dark matter distributed within galaxies and in the space between galaxies, especially the space between the near-by galaxies.

Coulomb Grids

1) Everything in the Cosmos (from entrans to electrons to protons to atoms to worms to dogs to people to planets to stars to galaxies to universes) is made from tronnies and each tronie is a point focus and a point source of speed-of-light Coulomb forces.

2) These Coulomb forces spread out at the speed of light in two dimensions from the tronnies in entrans and in three dimensions from the tronnies in electrons and positrons.

3) So these speed-of-light Coulomb forces completely fill every nook and cranny of the Cosmos including our Universe and the entire Cosmos.

4) These speed-of-light Coulomb forces traveling randomly in all directions and overlapping create an enormous number of separate Coulomb grids having shapes corresponding to the many features of the Cosmos.

5) There is a Coulomb grid corresponding to the entire Cosmos, a different Coulomb grid corresponding to our Universe and every other universe in the Cosmos, and different Coulomb grids corresponding to each and every galaxy of every universe and different Coulomb grids in each and every solar system within the galaxies and different Coulomb grids corresponding to the planets and moons within the solar systems.

6) So our planet earth has its own special Coulomb grid that travels with our earth as it travels at a high speed around our sun,

- 7) Light travels through all of these Coulomb grids at the speed of light relative to the Coulomb grid it is traveling through.
- 8) So when light traveling at the speed of light from a first grid moving at a first speed into a second grid moving at a second speed, it must slow down or speed up in order to travel at the speed of light through the second grid.
- 9) Photons are required to travel at the speed of light because they are self-propelled by internal Coulomb forces that travel at the speed of light
- 10) When Michelson and Morley measured the speed of light, they determined it was traveling at exactly the same speed in every direction which surprised them and almost everybody else because it was widely known that the earth was moving at a high speed relative to the rest of our Universe.
- 11) Therefore, most people believed that the measured speed of light should be slower if the earth was moving in the direction of the light and faster if the earth was moving against the direction of the light.
- 12) To explain the results of the Michelson and Morley experiment Albert Einstein concluded that time must pass more slowly if you are traveling very fast and made a lot of other weird and incorrect predictions in his Special Relativity Theory including a prediction that nothing could go faster than the speed of light.
- 13) We can see galaxies that are moving away from us at three times the speed of light, so light from the center of the galaxy directed toward us will initially be traveling away from us at twice the speed of light.
- 14) However, galaxies are only about a million light years in diameter so in a million years the light from the center of the galaxy will exit the galaxy.
- 15) Then the rest of the journey to earth will be at the speed of light relative to the cosmic background radiation that fills our Universe.
- 16) When the light gets to earth it will speed up or slow down so as to travel at the speed of light relative to the Coulomb grid that surrounds our earth.
- 17) Photons slow down by increasing their frequency and speed up by decreasing their frequency.
- 18) When we measure the speed of light coming from a far-away galaxy, we detect a Doppler shift in the wavelength of the photon.

Monster Black Holes

- 1) Since all close-by galaxies are attracting each other, a Monster Black Hole develops at the center of each universe, including our Universe.
- 2) The Monster Black Hole grows continually throughout the life of the universe producing ever increasing gravity.
- 3) After many billion years (such as about 50 billion years for our Universe) after the birth of the universe, the gravitational attraction from the Monster Black Hole will exceed, for most or all of the galaxies in the universe, the anti-gravitational photon pressure of starlight.
- 4) All of these galaxies for which the pull of gravity exceeds the repulsion of starlight will then be accelerated toward the Monster Black Hole.
- 5) This acceleration will continue unrelentingly for many billion years.
- 6) The speed of the galaxies will increase continually each second for billions of years or until the galaxies are consumed by the Monster Black Hole or until the Monster Black Hole explodes.
- 7) By the time the far-away galaxies reach the vicinity of the Monster Black they could be traveling many thousand times the speed of light; my rough calculations indicate speeds somewhere between 5,000 and 100,000 times the speed of light.
- 8) Since all star systems in each galaxy are traveling at roughly the same speed, life forms living in the galaxies will probably be unaware of their approaching doom.
- 9) At some point in time the Monster Black Hole will explode in a Big Bang explosion marking the end of life of the universe and the birth of its successor universe.
- 10) At the time of the Big Bang explosion many remaining galaxies (which galaxies had been accelerated by the gravity toward the Monster Black Hole for many billions of years) are approaching the Monster Black Hole from all directions at speeds many thousand times the speed of light.
- 11) These galaxies pass through the vacuum left by the exploded Monster Black Hole and the galaxies expand out from the site of the Monster Black Hole at

speeds many thousand times the speed of light to produce the early inflation of the successor universe and to function as seed galaxies for the successor universe.

12) About 13.7 billion years after the Big Bang, life forms may evolve on one of the planets that will speculate on how and when the new universe was created.

Our Place in the Cosmos

1) Our Universe includes only the galaxies that are in some way in some way connected with the rest of the galaxies of our Universe and is surrounded by a cold plasma shell.

2) A series of universes preceded our Universe in time.

3) Lower energy photons pass through inter-galactic space better than neutrino photons.

4) Photon pressure from stars applies an anti-gravity pressure on the stars, planets, moons and other features of distant galaxies trumping neutrino-photon gravity and causing the distance galaxies to be accelerated away from each other.

5) Close-by galaxies are attracted toward each other by neutrino-photon gravity and will ultimately be consumed to produce more massive galaxies.

The Shell of Our Universe

1) The Ross Model proposes that our Universe is surrounded by a cold plasma shell of charged particles, mostly high-speed, low-energy electrons and positrons, so that they are all traveling just a little slower than 2.19 million meters per second.

2) They are attracting each other and repelling themselves too fast to combine and annihilate each other.

3) This shell begins beyond the layer of galaxies that are located at the farthest distances from the center of our Universe and is probably many light years thick, maybe thousands or millions of light years thick.

4) Low-energy photons are reflected from this shell and produce the cosmic background radiation (CBR) that fills our Universe, the shell functions like an integrating sphere creating the CBR but preventing communication between us and other universes.

- 5) This cosmic background radiation establishes the temperature of our Universe which is about 2.7 K.
- 6) Higher energy radiation is absorbed in the shell and mostly reradiated, but if neutrino entrons or neutrino photons are captured by electrons, along with a 1.02 MeV entron and a 1.12 KeV entron, naked protons could be produced in the shell and these protons could collect gamma ray entrons to become hydrogen atoms.
- 7) Anti-protons could also be produced if the neutrino entrons are captured by positrons (see Chapter XXV of TRONNIES).

The Cosmos is Perfectly Symmetric

- 1) There are an equal number of plus tronnies and minus tronnies in the Cosmos and in our Universe.
- 2) There are an equal number of electrons and positrons in the Cosmos and our Universe.
- 3) The only way to produce an electron is in pair production where a positron is also produced.
- 4) The only way to produce a positron is in pair production where an electron is also produced.
- 5) A naked proton is the combination of two positrons and an energetic electron that has captured a neutrino entron.
- 6) A naked anti-proton is the combination of two electrons and an energetic positron that has captured a neutrino entron.
- 7) Naked protons and naked anti-protons are self-propelled at 4.02×10^{-7} m/s but capture entrons to slow down to become protons and anti-protons that can, respectively, capture electrons to become hydrogen atoms or capture positrons to become anti-hydrogen.
- 8) Protons and anti-protons are exactly opposite and when they combine they annihilate each other releasing three electrons and three positrons, two neutrino entrons and other entrons.
- 9) When protons were first produced, long, long ago, the probability of a protons production was equal to the probability of anti-proton production since

the number of free positrons was equal to the number of free electrons and many neutrino entrons were available.

10) The problem is; if this had continued, we would not have a universe because protons and anti-protons annihilate each other and larger nuclei would not have developed.

11) Protons out-number anti-protons in our Universe only because (billions or trillions of years ago) purely by chance, more protons were produced as compared to anti-protons in at least one region of the Cosmos which reduced the number of free positrons as compared to electrons, which made it easier to make protons and more difficult to make anti-protons.

12) To produce a proton a neutrino entron must first combine with a free electron which is easy to do in our Universe because there are many available free electrons.

13) To produce an anti-proton a neutrino entron must first combine with a free positron which is extremely difficult in our Universe because there are almost no free positrons; almost all positrons are already trapped inside protons.

14) To produce all of the atoms in the Cosmos and our Universe, all we need are protons, electrons and entrons and large numbers of these are easily available.

15) To produce anti-atoms, all we need are anti-protons (negative protons), positrons and entrons, but, purely by chance, in our Universe there are extremely few anti-protons and these are quickly annihilated soon after they are produced..

16) There is a high probability that there are anti-universes in the Cosmos comprised of anti-atoms, anti-molecules, anti-plants, anti-animals, anti-stars, anti-moons, anti-planets, anti-continent anti-oceans anti-mountains and anti-everything else possibility including anti-people.

Our Universe Is One of a Series of Universes

1) Our Universe is a successor to many universes in a series of universes each of which have been born in and died in Big Bang explosions of Monster Black Holes.

2) Our Universe was born in a Big Bang explosion and we should expect our Universe to die in a Big Bang explosion.

- 3) The Ross Model guesses that our Universe is Universe Number 47 in the series.
- 4) The model guesses that universes roughly double in mass and in lifetime each cycle.
- 5) Most galaxies in our Universe will be consumed by the Monster Black Hole currently building at the center of our Universe.
- 6) I am guessing that the next Big Bang will occur about 96.3 billion years from now; at that time some of the galaxies (now near the edge of our Universe) of our Universe will be approaching our Monster Black Hole at very high speeds (much faster than the speed of light) when the Black Hole explodes; these galaxies would have been accelerated toward the Monster Black Hole every second for about 50 billion years.
- 7) These galaxies will be part of the inflation period of our successor universe.
- 8) Life forms living in these galaxies may not even be aware that they are moving into in a new universe as they pass through the vacuum left by the explosion of the Monster Black Hole.

Before There Was Anything There Was Nothing

Then There Was a Cosmos

- 1) Before there was anything, there was nothing.
- 2) Time began with the development of the first two tronnies.
- 3) Tronnies combined to form entrons.
- 4) Entrons represent light, energy and mass.
- 5) Entrons travel forward at the speed of light as photons, entrons can combine to make higher energy entrons; so portions of the young Cosmos would have become very hot.
- 6) Some entrons developed into 928 MeV neutrino entrons.
- 7) Some of these 928 MeV neutrino entrons combined with 1.02 MeV entrons and 1.12 Kev entrons to make positrons and electrons.

- 8) Later on some 928 MeV neutrino entrons combine with electrons to make very high-energy, high-mass electrons which in turn capture two positrons to make naked protons.
- 9) And some 928 MeV neutrino entrons combine with positrons to make very high-energy, high-mass positrons, each of which in turn capture two electrons to make a naked anti-proton.
- 10) When protons and anti-protons were first being produced from combinations of electrons, positrons and neutrino entrons, the number of protons and anti-protons were equal.
- 11) Protons combine with anti-protons and both are annihilated, and this production and annihilation continues for millions or billions of years, but gradually protons began to dominate over anti-protons purely by chance at least in one region of the Cosmos.
- 12) This resulted in fewer free positrons relative to free electrons, so the creation of protons became more likely than the creation of anti-protons.
- 13) Soon, at least in cosmic time, there were very few anti-protons compared to protons, at least in this one region of the Cosmos.
- 14) Without this chance domination by protons over anti-protons we would not have a universe.
- 15) Notwithstanding this domination by protons over anti-protons in our Universe; the Ross Model contends (though some may disagree) that the Cosmos is still perfectly symmetric.
- 16) In our universe and in the Cosmos there are the same number of plus tronniees as minus tronniees and the same number of positrons as electrons with the missing positrons contained in protons (i.e. protons contain two positrons but only one electron).
- 17) There are probably some universes (anti-universes) in the Cosmos where anti-protons dominate.
- 18) If the number of protons and anti-protons had continued to be equal our Universe would not have evolved.

19) But it is possible that we could have about the same number of protons and anti-protons in the Cosmos if, by chance, the Cosmos includes about the same number of anti-universes as universes.

ATTACHMENTS

We have attached a copy of my book and three papers I have prepared since the publication of his book describing in more detail: gravity, spin, and the internal structure of atomic nuclei of all stable atoms.

WORK PLAN

If the National Science Federation requests a formal proposal based on this preliminary proposal, I believe that I will be able to convince my employer, Trex Enterprises Corporation, to submit a proposal to confirm the accuracy of my proposed replacement model for the Standard Model of Particle Physics and Einstein Relativity.

Trex is a diversified, high-technology company specializing in cutting-edge technical solutions and products to improve performance across the electromagnetic spectrum. Trex is a small business with 62 employees; with 50 percent having advanced degrees (mostly physics) with about 20 percent having PhD's. These advanced degrees, include: Ph.D. Engineering Science; Ph.D. Physics; Ph.D. Electrical Engineering/Applied Physics; Ph.D. Electrical; Ph.D. Electrical Engineering; Ph.D. Physics; Ph.D. Experimental Particle Physics; Ph.D. Applied Physics; Ph.D. Applied and Engineering Physics; Ph.D. Applied Physics; Ph.D. Physics; and Ph.D Physics. I am Trex's patent attorney with a BS in Nuclear Engineering and a J.D. in Law. During the past 20 years Trex and its predecessor companies have been granted more than 100 patents, mostly physics related. All but a few of these patents were written and prosecuted by me. Trex receives U.S. government support for programs relating primarily to the defense and homeland security.

SUGESTED PROGRAM

I suggest a one-year, phase-one program funded with an option for a phase-two program. In my book, I have made 101 predictions (Chapter XXIX). Many of these predictions can be confirmed or disproved by properly executed computer simulations based on solid scientific fact (not existing theory). Some can be proved or disproved by experiments. I expect that our work would include proposals for experiments at Fermi National Accelerator Laboratory, CERN and other physics laboratories that would test the Ross Model against the Standard Model and Einstein Relativity.

John R. Ross
Trex Enterprises Corporation
10455 Pacific Center Court
San Diego, CA 92121
Phone: 858-646-5488
jross@trexenterprises.com

Attachments:

TRONNIES – The Souce of the Coulomb Force
Ross Model – Stable Isotope Chart
Particle Spins Are Real
A Simple Explanation of Black Holes and Gravity