A PROCESS FOR MAKING MODELS OF THE BUILDING BLOCKS

OF OUR UNIVERSE

CROSS REFERENCE TO RELATED APPLICATIONS

This Application is a Continuation-in-Part Application of Serial No. 11/108,938 filed April 18, 2005 which was a Continuation in Part of Serial No. 10/655,817 filed September 5, 2003, Serial No. 10/436,286 filed May 12, 2003, Serial No. 10/251,577 filed September 21, 2002 and Serial No. 09/908,297, filed July 17, 2001, which was a Continuation-in-Part of Serial No. 10/161,823 filed June 3, 2002, now abandoned, all of which are incorporated herein by reference.

FIELD OF THE INVENTION

The present invention relates to processes for making models and in particular processes for making models of very small things.

### BACKGROUND OF THE INVENTION

Search for the Truth

Since the beginning of human civilization mankind has searched for explanations of the origin of our Universe, how it was put together and how it works. Early explanations involved supernatural beings and religions evolved from these efforts. More recent explanations have involved complicated mathematical explanations based on experimental evidence, some involving multiple extra dimensions. Many millions of dollars are being spent in the United States alone and similar efforts are underway in other countries in search of the ultimate building blocks of our Universe and a theory or explanation that fully explains all of nature. This sought after theory is referred to as the “theory of everything”.

Popular Models

Popular scientific models propose a complicated set of elementary particles that are supposed to be building blocks of matter. These include electrons (positive and negative) and six types of quarks (three of which make a proton and three of which make a neutron) and neutrinos. Neutrinos are supposed to be produced in the sun, have the same spin as the electron, travel at, or very close to, the speed of light and most of them that illuminate the earth, according to accepted theories, pass right through it. Popular models also include a complicated set of forces. These include electromagnetic forces (that combines Coulomb forces with magnetic forces), the “strong” force holding atomic nuclei together, a “weak” force related to beta particle decay and the force of gravity. Prior art models include a spectrum of electromagnetic radiation, including cosmic rays, gamma rays, x-rays ultraviolet light, visible light, infrared light, millimeter waves, microwaves and radio waves. These models include the photon which is supposed to be a quantum of electromagnetic energy having some features of a particle. Relativity theories attempt to model the effects of traveling at speeds close to the speed of light and to describe gravitational effects.

Important Known Facts

The earth and our sun are part of the Milky Way Galaxy. The Milky Way is an average size galaxy that has in it about 100 billion stars. (We refer to one of those stars as our “sun”.) There are in our Universe more than 80 billion galaxies. This means there are more than (80 X 109 galaxies) X (100 X 109 stars/galaxy) = 8 X 1021 suns in our Universe. That is 8 trillion billion stars. Many if not almost all of these stars are believed to have planets orbiting them and many if not most of these planets are likely to have moons. The distance to the edge of the observable universe is about 1026 meters. That is 100 trillion trillion meters. Our Universe is a very big place with lots of stuff in it.

Our Universe is currently expanding with the distances between galaxies (or clusters of galaxies) expanding faster depending on how far away the galaxies (or clusters) are from each other. We estimate the age of our Universe by dividing the distance to each galaxy by the speed at which the galaxy is moving away from our galaxy, the Milky Way. We get roughly the same answer for each galaxy for which we have a good estimate of distance. Based on these measurements and calculations scientists believe that our Universe originated about to 13 to 15 billion years ago in a Big Bang explosion. About 300,000 years after the Big Bang a very large number of small atoms formed, mostly hydrogen atoms and a much smaller number of helium atoms. Over time these atoms collected into gas clouds that later became stars. In the extreme heat in the core of stars hydrogen atoms combined to produce helium and hydrogen and helium combined to produce larger atoms and these larger atoms combine with other atoms to make even larger atoms. Stars collected into galaxies. Some exploded spreading the heavier atoms they proceeded out into interstellar space.

Planets, including our earth, formed from collections of the atomic debris of exploded stars. Some planets are mostly hot gases but scientists believe there are many planets with conditions similar to conditions on earth that are capable of supporting the development of life.

Atoms

There are 92 types of naturally occurring atoms, each with a nucleus and a unique number of orbiting electrons. Atoms each have a single relatively heavy positively charged nucleus and the nucleus is surrounded by one or more electrons, each of which has a negative charge of -e. The number of orbiting electrons in a charge neutral atom represents the atomic number of the atom. Some of the more familiar atoms are listed below:

Table I

Typical Atoms

Number of Electrons Atom Symbol

 In Orbit

1. Hydrogen H
2. Helium He
3. Carbon C
4. Nitrogen N
5. Oxygen O

10 Neon Ne

11 Sodium Na

12 Magnesium Mg

13 Aluminum Al

14 Silicon Si

16 Sulfur S

18 Argon Ar

20 Calcium Ca

26 Iron Fe

29 Copper Cu

47 Silver Ag

79 Gold Au

82 Lead Pb

92 Uranium U

The net charge of the nucleus of each neutral atom is equal and opposite the total charge of the number of electrons in orbit around the nucleus. So for example the net charge on the helium nucleus is + 2e and the net charge of its two orbiting electrons is – 2e. The net charge of the helium atom is 0 (since +2e added to -2e = 0).

Electrons

There are two types of electrons: (1) the type most people are familiar with that has a negative charge of –e (its official name is “negatron” but it is usually referred to as an “electron”) and (2) the type most people are not familiar with that has a positive charge of +e and is called a “positron”. The positron is the anti-particle of the negative electron. This anti-particle is exactly like the negative electron except for its positive charge of +e. Pairs of electrons (one negatron and one positron) can be produced when high-energy photons (called gamma rays or gamma ray photons) interact with matter. When an electron and a positron combine they both vanish and are replaced by high-energy photons. These processes are respectively called “pair production” and “electron-positron annihilation”.

Photons

Visible light is a part of an electromagnetic spectrum which also includes x-rays, microwaves, radio waves, infrared light and ultraviolet light. For more than 100 years scientists have known that the energy of the electromagnetic spectrum is “quantized”; which means light (and other forms of electromagnetic energy) comes in separate and distinct “quantities” of energy. These separate and distinct quantities of energy are called photons. Scientists do not know what a photon is or what it looks like but they do know that the energy of a photon is:

Ephoton = hc/λ (1)

Where h is Planck’s constant = 6.626 X 10-34 Nms = 6.626 X 10-34 Js. N is the symbol for newtons, m is meters and s is seconds. A newton-meter, Nm is a joule, J. The symbol c is the speed of light, c = 3 X 108 m/s, and λ is the wavelength of the photon, so:

Ephoton = hc/λ = (6.626 X 1034 Nms) X (3 X 108 m/s)

 = 1.99 X 10-25 Nm2/λ or 1.99 X 10-25 Jm/λ

The units of wavelength, λ, are meters so the photon energy, Ephoton, is in units of newton-meters which is the same as joules (i.e. one J = one Nm). Planck’s constant can also be written with electron-volt, eV, units: h = 4.136 X 10-15 eVs. Readers should note that the smaller the wavelength of the photon the larger is its energy. Radio wave photons have relatively long wavelengths and gamma ray photons have relatively short wavelengths. Visible light photons are somewhere in the middle.

**Mass, Energy Conversion Units and Universal Constants**

Existing reference books and the Internet contain precisely measured values of the masses of atoms and sub-atomic particles and their equivalent energy (based on E = mc2), and provide precise values of important conversion units and universal constants such as the electron charge and the vacuum speed of light. Some of these values needed to understand the Ross Model are listed in Tables II, III and IV. To follow some of the math in the following section, readers may want to refer from time to time to the values in these tables.

**Table II**

**Masses of Some Small Atoms and Particles**

Particle or Atom Symbol Mass Energy

 (kg) (MeV)

Electron at rest e- 9.109 3897 X 10-31  0.510 712 57

Positron at rest e+ 9.109 3897 X 10-31  0.510 712 57

Proton p 1.672 6231 X 10-27  938.272 338

Neutron n 1.674 9286 X 10-27  939.565 628

Deuteron d 3.343 5860 X 10-27  1875.613 39

Tritium isotope 3H 5.008 2711 X 10-27  2807.857 70

Hydrogen one atom 1H 1.673 5340 X 10-27  938.256 992

Helium 4 atom 4He 6.646 4835 X 10-27 3726.311922

**Table III**

**Some Important Conversion Units**

One electron volt eV = 1.602 177 33 X 10-19 J joules

 eV = 1.783 662 70 X 10-36 kg kilograms

 eV = 96.49 kJ/mole kilo-joules per mol

One atomic mass unit amu = 1.660 5402 X 10-27 kg kilograms

 amu = 932.0 MeV million electron-volts

One kilogram kg = 8.987551787 X 1016 J joules

Joule (energy) J = kgm2/s2 kilogram meter squared per second squared

Newton (force) N = kgm/s2 kilogram meter per second squared

**Table IV**

**Universal Constants**

Speed of light in vacuum c = 2.99 792 458 X 108 m/s meters per second

Planks constant h = 6.626 0755 X 10-34 Js joule-second

 h = 4.135 6692 X 10-15 eVs electron-volt seconds

Avogadro constant NA = 6.022 1367 X 1023 /mole per mole

Coulomb constant k = 8.99 X 109 Nm2/C2 newton meter2/coulomb2

Pi π = 3.1416

Electron Charge

Elementary charge e = 1.602 177 33 X 10-19 C coulombs

Ampere Amp = 1 C/s coulomb per second

 Amp = 6.24 X 1018 e/s electrons/second

Wein’s Law λ = 2.898 X 10-3 mK/T

where λ is the peak wavelength of radiation emitted from a body at temperature T in degrees Kelvin.

The electrical force (also called the “Coulomb Force”) F, between stationary charged particles is:

F = kQ1Q2/r2, (2)

where k = 8.99 X 109 N-m2/C2, Q1and Q2 are the charges in Coulombs of the particles and r is the distance between the particles.

Avogadro’s constant from Table IV represents the number of atoms of a particular material in a number of grams equal to the atomic mass number of the material. Pi (π) from Table IV is the ratio of the circumference of a circle to the circle’s diameter. Plank’s constant from Table IV gives us the energy of a photon using equation (1) if we know its wavelength.

Need for a Simpler Process

Stephen Hawkins in his book, *The Theory of Everything*, complained that science had become too complicated for philosophers and that they had ceased asking questions such as: “Did the universe have a beginning?” and he concluded his text as follows: “However, if we discover a complete theory, it should in time be understandable in broad principal by everyone, not just a few scientists. Then we shall all be able to take part in the discussion of why the universe exists. If we find the answer to that, it would be the ultimate triumph of human reason. For then we would know the mind of God.”

What is needed is a simple process for making models of photons, electrons, protons, neutrons, atoms, molecules, electricity, magnetism, heat, gravity and everything else in our Universe.

SUMMARY OF THE INVENTION

I call the present invention the “Ross Model”. It is a process for making models of very small things and very big things. Since the structure of the smallest and largest things in our Universe are unknown to science and hold the key to understanding how our Universe was created and functions, the Ross Model is a process for modeling the secrets of our Universe. In preferred embodiments the present invention is used to create models of subatomic particles (including photons, electrons and protons) and other things in our Universe such as atoms, molecules, electricity, magnetism, gravity, Black Holes, galaxies, the Big Bang, and our Universe itself, including its shell. The present invention also provides a process for modeling tronnies and entrons, each of which are currently unknown to science. In step-by-step processes, the internal structures of photons, electrons, protons and atomic nuclei can be modeled and graphical, physical or computer models of the particles can be produced. The Ross Model may also be applied to model the evolution of universes including the creation and future destruction of our Universe to create our successor universe. Some of the building blocks of our Universe are described briefly below:

The Tronnie

The present invention is based on the existence of a previously unknown point particle (which I discovered and call the “tronnie”) from which everything in our Universe is made. Tronnies have no mass and no volume but they do have a charge of plus e or minus e. So they carry the Coulomb force which expands out from each tronnie at the speed of light (3 X 108 m/s) repelling like tronnies and attracting unlike tronnies. Each tronnie being exactly like itself repels itself with its own Coulomb force, so each tronnie is always traveling at the speed of light or greater, never less than the speed of light!

The Entron

My model also reveals a previously unknown mass-energy quantum which I call the “entron” that is comprised of two tronnies, one plus and one minus. The two tronnies of the entron travel on opposite sides of a circle at a speed of 1.57c (π/2 times the speed of light). The diameter of the circle may be any size from 1.44 X 10-18 m to a few centimeters. Entrons represent almost all of the mass/energy of our Universe. (The rest of the mass/energy of our Universe is represented by electrons and positrons.) All of the other massive objects in our Universe including protons derive their mass from electrons, positrons and entrons. Each photon is comprised of one entron.

The Neutrino Entron

The most energetic entron and the most important entron in our Universe is the “neutrino entron” (with a mass of 1.67 X 10-27 kg and energy of 1.503 X 10-11 J or 931 MeV) which represents almost all of the mass of protons. These neutrino entrons also represent almost all of the mass of our Universe. Protons are destroyed in Black Holes at the center of each galaxy, and each destruction of a proton releases a neutrino entron as a “neutrino photon” from the black holes to provide the gravity of the galaxy.

Photons

Photons are entrons traveling in a circle at a speed of 2c (twice the speed of light) and forward at a speed of c (the speed of light). All of the energy of a photon is contained in its entron. The wavelength of the photon is 911.6 times the diameter of its entron and the diameter of the photon’s circle is 0.6366 times the photon’s wavelength.

Naked Electrons

The Ross Model describes the internal structure of zero voltage electrons (which I call “naked electrons”). Naked electrons are comprised of one plus tronnie, traveling in a circle with a diameter of 1.46 X 10-18 m at a speed of 1.57c and a frequency of 1.04 X 1026 cycles per second, and two minus tronnies circling the path of the plus tronnie in circles of the same diameter and frequency at one-fourth period behind the plus tronnie. Naked electrons are self-propelled. Internal Coulomb forces within naked electrons propel the naked electrons at a speed of 2.18 X 106 m/s giving it a kinetic energy of 2.16 X 10-18 J (13.5 eV).

Energetic Electrons

Energetic electrons are combinations of naked electrons and at least one entron. Low energy entrons slow the electrons down. A captured 13.5 eV entron cancels the electron’s natural kineteic energy and higher energy entrons propel the electron in the direction opposite its natural direction. Positrons, naked and energetic (as in prior art models) are the anti-particle of electrons and naked positrons are also self-propelled at the same speed of 2.18 X 106 m/s.

Naked Protons

Naked protons are comprised of a very energetic electron (having captured a neutrino entron (circling with a diameter of 0.840 X 10-15 m and two naked positrons circling the path of the very energetic electron at one-fourth period behind the electron. Naked protons are self-propelled at an estimated speed of 4 X 107 m/s which is a little faster than 10 percent of the speed of light.

Energetic Protons

Naked protons are slowed down with the capture of several entrons with energies totaling 8.366 MeV to form the nucleus of a hydrogen atom. These entrons are released in processes in which four naked protons and two electrons joined together in a fusion process to form a helium nucleus which is the same as a naked alpha particle. These released entrons represent the heat/energy of the hydrogen bomb and the heat/energy of our sun and most of the stars.

Alpha Particle

Naked alpha particles are each comprised of four naked protons and two naked electrons. Naked alpha particles (like naked electrons and naked protons) are self-propelled by internal Coulomb forces. The nucleus of the helium atom is an energetic alpha particle slowed down with a captured entrons some of which are in turn released when helium nuclei are fused to form the nuclei of larger atoms such as carbon, oxygen and neon.

Atoms

The nucleus of the most abundant of isotope of carbon is a simple combination of three alpha particles; oxygen four alpha particles, neon five, magnesium six, silicon seven and sulfur eight plus, in each case, entrons. The nuclei of the isotopes of all of the other atoms are combinations of thing that are available in abundance in stars (i.e. alpha particles, protons, electrons and positrons and entrons).

Everything in Our Universe is Made from Two Halves of Nothing

Tronnies are point particles with no mass and no volume, so two of them (a plus tronnie and a minus tronnie) are two halves of nothing. Tronnies are the fundamental particles from which everything in our Universe is made. Entrons, naked electrons and naked positrons are composite particles made from tronnies. Naked protons and naked alpha particles are also composite particles made from electrons, positrons and entrons. Everything else in our Universe is made from these composite particles. So basically everything in our Universe is made from tronnies. By everything, I mean everything, including all atoms, molecules, heat, gravity, our earth, its moon our sun, our galaxy and all 100 billion galaxies in our Universe, all made from tronnies and composite particles that are made from tronnies. Tronnies, having no mass and no volume and opposite charges with the ability to create mass and energy and being two haves of nothing, provides a logical explanation for how a universe could be made from nothing (empty space).

Internal Structures of Atoms and Sub-Atomic Particles

As explained above the present invention reveals the internal structure of photons, entrons, electrons, protons, and alpha particles and explains how these composite particles can be combined to form all atoms and molecules.

Photons and Sub-Atomic Particles Are Self-Propelled

Photons are each comprised of one entron traveling in a circle at a speed of 2c and forward at a speed of c (the speed of light). Naked electrons, positrons, protons and alpha particles are self-propelled by their own internal Coulomb forces at a significant fraction of the speed of light but can capture low-energy entrons to slow down. High-energy electrons, positrons, protons and alpha particles are propelled by captured high-energy entrons, in directions opposite their natural direction of travel. These high-energy entrons each has a mass that corresponds to their energy based on Albert Einstein’s famous equation:

E = mc2 (3)

However the mass of the entrons add to the mass of the particles they are propelling. Therefore, the speed of the particles can only be increased with a corresponding increase in the mass of the particles. Thus, the Ross Model, like Albert Einstein’s special theory of relativity, provides an explanation as to why the mass of particles traveling close to the speed of light have substantially greater mass as compared to similar slow speed particles. This increase in mass with energy results in a limit on the speed on the energetic particles when the mass of the propelling entron becomes very large compared to the mass of the particle being propelled.

Gravity

Gravity, according to the present invention, is produced in Black Holes with the destruction of protons and anti-protons which releases one neutrino photon with each proton and each anti-proton destroyed. The neutrino entron in each neutrino photon has a diameter of 1.46 X 10-18 (about a thousand times smaller than a proton and one hundred million times smaller than an atom) so the neutrino photon easily passes through objects like stars, planets and moons, molecules, atoms and even protons. The neutrino entron is about the same size as the electron and the positron. Coulomb force effects from the tronnies in each neutrino photon produce tiny forces on the charges in the objects through which the neutrino photons pass, pushing the objects back toward the source to the neutrino photons (i.e. Black Holes). Some of the neutrino entrons are temporally captured by electrons and positrons in objects such as the stars, planets and moons. These captured neutrino entrons are later released in random directions as neutrino photons; thereby giving these stars, planets and moons their gravity. Electrons in hydrogen atoms in interstellar space capture or scatter a portion of the neutrino photons to significantly reduce the neutrino photon flux from each galaxy that reaches distant galaxies.

Anti-Gravity

Anti-gravity is produced by photon pressure from low-energy photons such as visible light photons which pass through interstellar space basically unimpeded, much more efficiently than gravity producing neutrino photons. Therefore, photon pressure from stars of one galaxy is sufficient to provide a repulsive accelerating force on far distant galaxies. This force is small but it is constant and continuous (always accelerating every second) for billions of years. Thus, close-by galaxies are all accelerating toward each other due to the influence of penetrating neutrino photons and far-away galaxies are expanding away from each other due to pressure from non-penetrating lower energy photons which are absorbed by or reflect from the components of the far-away galaxies. And the things responsible for the attraction and repulsion of galaxies are photons, nothing but photons, low energy photons pushing far away galaxies apart and neutrino photons pulling close-by galaxies together!

Magnetism and Electricity

Magnetism is nothing but naked (zero voltage) electrons looping through and around magnetic materials at the naked electrons’ natural speed of 2.18 million meters per second (2.18 X 106 m/s) or faster. Our earth’s magnetic field is produced by these naked electrons that loop through and around our earth (with a diameter of about 6 million meters) in a few seconds. The model also provides a new description of electricity and electric current.

Our Universe Is Contained in a Cold Plasma Shell

The Ross Model describes a cold plasma shell (of mostly naked electrons, positrons and protons) which surrounds and contains our Universe. This cold plasma shell has been reflecting low energy photons from the galaxies of our Universe like an integrating sphere since the formation of our Universe. Therefore, low energy photons do not escape from our Universe. This very old reflected light produces the recently discovered uniform (in every direction) low-energy cosmic background radiation. The electrons in the cold plasma shell absorb the entrons of neutrino photons reaching the shell to produce very high-energy electrons each of which may capture two positrons to produce new protons which collect gamma rays to become hydrogen nuclei which in turn collect an electron to become hydrogen atoms providing material for the production of new galaxies at the currently growing boundary of our Universe.

The Recycling of Universes

The Ross-Model provides a new insight into creation of our Universe and the ultimate destruction of our Universe in a Big Bang event that will be the birth of our successor Universe.

A Work in Progress

Details of earlier versions of the Ross Model are provided in the patent applications referred to in the first sentence of this specification. These applications are incorporated herein by reference. This application is the latest version.