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A Simple Explanation of BLACK HOLES AND GRAVITY (05/20/2016)

Black Holes

Each galaxy in our Universe contains a Black Hole at or near its center which provides sufficient gravity to hold together the entire galaxy of many billions of stars and their planets and the moons of the planets. Portions of matter within each galaxy, including the stars, planets and moons, are continually being consumed by the Black Hole. Once consumed we never see the matter again. Scientists do not have a good explanation as to what happens to the consumed matter or a good description of gravity. And they do not have a good description of the processes going on inside Black Holes. The Ross Model provides the answers.

The Ross Model

According to the Ross Model everything in our Universe is comprised of "tronnies" or things made from tronnies. To my knowledge, I am the first person to recognize the existence of tronnies and the simplest combination of tronnies, the "entron". Here is a very quick summary of the Ross Model:

> Tronnies are point particles with no mass, no volume and a charge of plus or minus e. (Coulomb's Law requires that the basic charged particle be a point particle or comprised of point particles.) Tronnies always travel in perfect circles with one or two other tronnies, each at a speed of $\pi c/2$ (about 1.57 times the speed of light). Two tronnies make an entron; attractive and repulsive vector forces in diametrical directions exactly cancel. Electrons and positrons are each comprised of three tronnies. Three special entrons (six tronnies) combine to make a "naked electron" and a "naked positron" in a process called pair production. These electrons and positrons capture entrons to become "energetic electrons" and "energetic positrons" and to slow down or speed up. Entrons provide all the mass of our Universe except for the mass of naked electrons and naked positrons, and entrons provide all of the energy of our Universe. There is one entron in each photon. An entron provides the mass and energy of each photon. The energy E of each photon is well known as hc/λ where h is Planck's constant λ is the photon's wavelength and c is the speed of light. Thee mass of the entron is $m = E/c^2 = h/\lambda c$. A naked proton is comprised of an electron, a 1.65 X 10^{-27} kg "neutrino entron" and two naked positrons. Naked

electrons, positrons and protons are all self-propelled at significant fractions of the speed of light.

Production of Neutrino Photons

There is a Black Hole at the center of every galaxy. Each Black Holes consumes portions of its galaxy to provide the gravity of the galaxy. The Ross Model proposes that the temperature inside Black Holes is much higher than temperatures inside the cores of stars. The matter consumed by the Black Hole is broken down, by this tremendous heat of the Black Hole, into atoms and the atoms are broken down into electrons, protons and entrons. Protons are then destroyed by their combination with anti-protons. Each destroyed proton releases an electron and two positrons and one neutrino entron and additional lower energy entrons. Each of the destroyed anti-protons produces two electrons and one positron and one neutrino entron and additional lower energy entrons. The released lower energy entrons add heat energy of the Black Hole to help maintain its tremendously high temperature. There is within each Black Hole an enormous flux of neutrino entrons produced from destruction of the protons and anti-protons. Combinations of a neutrino entron, a positron and two electrons produce a large population of anti-protons at a controlled rate that depends of the population of positrons, electrons, neutrino entrons and temperatures within the Black Hole. Each anti-proton soon after production combines with a proton and both are annihilated releasing two neutrino entrons, some of which participate in the production of more anti-protons and some of which escape the Black Hole as neutrino photons to provide the gravity of the galaxy.

Neutrino Photons Carry Gravity

The neutrino photons travel out from the Black Hole at the speed of light. Coulomb force waves spread out from the two tronnies in each neutrino photon at the speed of light. (A neutrino photon is a single neutrino entron travelling in a circle at a speed of 2c within the neutrino photon which is traveling in a straight line at a speed of c.) Neutrino entrons are so small (with a diameter of about 0.934×10^{-18} m), that almost all (but not all) of their photons pass easily through all objects in their path including objects as large as moons, planets and stars and objects as small as atoms (with sizes of about 10^{-10} m) and even the nuclei of atoms (with sizes of about 10^{-15} m). Tiny charges (such as protons and electrons) in or near the path of the neutrino photons do not feel significant Coulomb forces from the tronnies (with charges of plus or minus e) in the neutrino photons until the neutrino photons have passed by or through the tiny charges. Thus, there is no significant force on the objects in the direction of travel of the neutrino photons. Sidewise forces on the objects produced by Coulomb waves from the tronnies of the neutrino photons cancel, so the only net force felt by the objects, through which the neutrino photons are passing, is a force pushing the objects back toward the source of the neutrino photons. This is described in more detail in the next section entitled “Gravity”. The flux of neutrino photons leaving the Black Hole, near the surface of the Black Hole, is so intense that normally nothing other than the neutrino photons can leave the Black Hole. All other photons in the

electromagnetic spectrum, including visible light, infrared light, ultraviolet light radio waves, x-rays and gamma rays, are all forced back into the Black Hole by the Coulomb waves from the tronnies in the neutrino photons. The Ross Model proposes that all neutrino photons have the exact same energy and wavelength and they do not normally share their energy with each other or other photons, except: (1) when temporally captured by an electron or a positron, (2) in the process of pair production and (3) in the generation of protons and anti-protons. The Ross Model proposes that photons other than neutrino photons slow down or speed up when they travel into a Coulomb field that is moving relative to the source of the photons so as to always travel at the speed of light relative to the Coulomb field through which the photon is traveling. Neutrino photons, however, always travel at the speed of light relative to their source. This distinction is important for the understanding of gravity in accordance with the Ross Model.

Galactic Gravity

Neutrino entrons released from the Black Hole at the center of each galaxy produce the gravity of the galaxy. For our Milky Way Galaxy, its Black Hole releases sufficient gravity in the form of neutrino photons to hold more than 100 billion star systems in their orbits around the Black Hole. Electrons in hydrogen atoms in intergalactic space capture or scatter a portion of the neutrino photons to significantly reduce the neutrino photon flux from each galaxy that reaches far distant galaxies. So the gravity produced by Black Holes is effective with respective to the galaxy surrounding the Black Hole and possibly to nearby galaxies which may be subject to a mutual gravitational attraction. Currently in our Universe far away galaxies are receding from each other and our Universe is expanding. Near-by galaxies are attracting each other.

The Gravity of Stars, Planets and Moons

Stars, planets and moons are comprised of atoms. Stable nuclei of atoms heaver than He-3 are mostly alpha particles, with up to three protons, up to 26 electrons and some gamma ray entrons. Each alpha particle is comprised of four protons, two electrons and some gamma ray entrons. Each proton (including the protons in the alpha particles) is comprised of an electron, a neutrino entron, two positrons and maybe some gamma ray entrons. Electrons orbit the nuclei. The size of electrons and positrons is about 2×10^{-18} m, which is about a thousand times smaller than a proton and one hundred million times smaller than a typical atom. As explained above the neutrino entron (which is the mass and energy of each neutrino photon) has a diameter of about 0.934×10^{-18} m (about half the size as the electron and the positron) and it spins with the same frequency as the electron. Electrons and positrons are the only things that can capture a neutrino entron. Since neutrino entrons and the electrons and the positrons are so small, the probability of a capture in a finite volume of matter is extremely small, but luckily not zero. So the neutrino photon easily passes through objects like stars, planets and moons, molecules, atoms and even protons, but a small percentage of the neutrino entrons are temporally captured by electrons and positrons in objects such as the stars, planets and moons. Coulomb force effects from the tronnies in each neutrino photon produce tiny forces on the charged particles (such as electrons,

and positrons in the objects through which the neutrino photons pass, tending to push the objects back toward the source of the neutrino photons (i.e. toward Black Holes, which are the primary source of neutrino photons, or toward the stars, planets and moons which are secondary sources of neutrino plotons).

Monster Black Holes

There will develop in each Universe near its center a Monster Black Hole that will ultimately consume nearly all galaxies within the universe. Near the end of the life of each universe after many billions of years of attraction toward the Monster Black Hole the remaining galaxies near the edges of the universe will be approaching the Monster Black Hole at velocities many thousand times the speed of light. The Monster Black Hole will then explode in a Big Bang explosion due to greatly reduced galactic consumption. Most of the incoming galaxies will survive (at least to some extent) the Big Bang and will sail through the region of the Big Bang and fan out in all directions at velocities many thousand times the speed of life to provide an inflation period for the successor universe of the universe that has just lost its life.

Other Explanations of Gravity

This Ross Model explanation of gravity is going to be challenged by the scientific community which has been led incorrectly to believe that gravity results from the curvature of space produced by massive objects such as our sun, our earth and the moon. The Ross Model proposes that "space" is "empty space". It is nothing. It can't be curved. The Ross Model of gravity is much simpler. Massive objects capture neutrino entrons produced in Black Holes at the center of each galaxy and later release them as neutrino photons in random directions producing the gravity of the massive objects. The larger the mass, the more neutrino entrons it captures. The more it captures, the more it later releases, so the gravity of each object is proportional to its mass. Photons passing near massive objects such as stars feel a reverse force from secondary neutrino photons radiating out of the stars, and so are forced to curve toward the stars or massive objects, leading to the incorrect conclusion that the mass of the massive object has curved the space around it. The reader is encouraged to examine the path taken by the entron in each neutrino photon (**FIG. 4** in **Chapter V**, attached). You will note that once during each cycle of the photon the entron travels at speeds that vary from minus c to plus 3c. The neutrino photon is one half the size of an electron. It has no more trouble passing through stars, planets and moons than an electron has passing through a copper wire. Note that at one point during each wavelength of every photon (including the neutrino photon), the entron is traveling backward at the speed of light toward the source of the neutrino photon. The reverse force applied by the neutrino photon on the charges in the massive object is very tiny, but as you will see in the next section the neutrino photon flux produced by Black Holes is extremely huge. And the cross section of the massive objects such as stars is also extremely huge so the total gravitational force on stars is enough to keep them in their appropriate positions orbiting the Black Holes. And the same logic applies to 1) planets orbiting stars as a consequence of secondary neutrino photons

from the stars and 2) moons orbiting planets as a consequence of secondary neutrino photons from the planets.

Black Holes Eat Their Galaxies

Neutrino entrons from the Black holes do good by producing the neutrino photons that are holding the stars, planets and moons in the galaxy in their assigned orbits around the Black Holes. However, the Black Holes, in order to do its job, do bad by consuming portions of their own galaxies to produce the neutrino photons.

How Many Neutrino Photons Are Produced by Black Holes?

Black Holes regularly consume an entire solar system its sun, its planets and moons. I am going to guess that the Black Hole in the center of our galaxy consumes matter at an average rate of about one earth size planet each day. Let us as an example estimate the number of neutrino photons that would be released from a Black Hole with an average consumption per earth day of a single planet the size of our Earth. A planet the size of our earth would have a mass of about 5.98×10^{24} kg. Since almost all of that mass is provided by protons and since each proton has a mass of about 1.67×10^{-27} kg, there must be about 3.6×10^{51} protons in a planet the size of our Earth. Since each proton is comprised of one neutrino entron, the planet would carry into the Black Hole about 3.6×10^{51} neutrino entrons, each of which sooner or later would be converted to a neutrino photon. (Remember the number 3.6×10^{51} neutrino photons.) So let us try to get an idea of the extent of the neutrino photon flux at our solar system as a consequence of the daily destruction of an earth size planet by the Black Hole at the center of our Milky Way Galaxy. To begin with our Earth is located about 2.2×10^{20} meters from the location of the Black Hole at the center of our galaxy.

The surface area A of a sphere with a radius of 2.2×10^{20} m is determined by the formula: $A = 4\pi r^2$, where r is the radius of the sphere, so the surface area of a sphere at the solar system's position in the Milky Way Galaxy is about 6.1×10^{41} m^2. We assume that all of the neutrino photons released by the destruction of a planet the size of the earth would be distributed evenly over the surface area of a sphere with a radius equal to the distance between our solar system and the center of our galaxy. Now we want to know the number of neutrino photons per square meter at the earth's average position in the galaxy. We get that number by dividing 3.6×10^{51} neutrino photons by 6.1×10^{41} m^2. The result is 0.59×10^{10} neutrino photons/m^2 or about 5.9 billion neutrino photons per square meter. So if we assume the Black Hole consumes matter at the rate of one planet earth each day and converts its protons to neutrino photons, our earth should see a neutrino photon flux of about 5.9 billion neutrino photons per square meter per day or if we divide this number by the number of seconds (86,400) in a day; we have a neutrino flux of about 68,000 neutrino photons/m^2-second. This may provide a rough estimate of the neutrino photon flux we are actually experiencing that is holding our solar system in its approximately circular path around the Black Hole at the center of our Milky Way Galaxy. Since our bodies

have a cross section of about 0.5 square meter (with these assumptions) we, ourselves are being penetrated each second by about 34,000 neutrino photons each second from the Black Hole in the center of our galaxy! (And keep in mind this does not count the neutrino entrons passing through our bodies secondarily from our sun, our moon and our earth. Although it is not pleasant to think about being riddled by so many neutrino photon "bullets" each second of our lives, we need to keep in mind that were it not for these tiny neutrino photon bullets; we, our earth and our sun would not be maintained in our respective positions in our Universe. In fact it is difficult to imagine what our Universe would be like without these tiny gravity producing neutrino photon bullets.

Dark Energy and Dark Matter

While we are on the subject of neutrino photons and gravity, I might bring up the subject of dark energy. Existing theories concerning gravity and the current expansion of our Universe have suggested that there may be a lot of dark energy in our Universe that we have been unable to detect and a lot of matter that we cannot see. The problem that these scientists have is that they are not aware of the neutrino photons of the Ross Model. Existing theories do include the old fashion "neutrino". But old fashion neutrino is not supposed to have any mass or if it does its mass is supposed to be very small. For the Ross Model lack of dark energy and invisible mass is not a problem. You can see in the preceding paragraph the neutrino photons represent a tremendous quantity of dark energy and dark matter. Each neutrino photon has a mass almost equal to the mass of a proton. And our galaxy is loaded with neutrino photons. Also many escape from our galaxy and other galaxies to load up intergalactic space with invisible neutrino photons providing dark energy and dark matter. The example described in the preceding section demonstrates how Black Holes are continuously converting real visible matter (such as an earth-size planet) into dark matter such as 3.6×10^{51} neutrino photons per day. The example assumes an average conversion of one earth-size planet per day for a typical galaxy. Remember we have about 100 to 400 billion galaxies in our Universe and the Black Holes in the galaxies have been making these conversions continuously every day for many billions of years. The result is a heck of a lot of dark energy and dark matter. The Ross Model provides another source of matter that is not dark, but is not currently considered in the calculation of the total mass of our Universe. This is photons other than neutrino photons. The Ross Model proposes that all photons have mass, even radio wave photons and that the mass of each photon is proportional to the energy of the photons. All of this is very important in connection with the future of our Universe and questions of whether it will continue to expand forever, expand for some period then stop expanding or expand for some period and the contract into a small volume and explode in a future Big Bang. We deal with these issues in **Chapter XXI** and **Chapter XXVI**.

Why Are Black Holes Black?

We estimated a neutrino flux of roughly 68,000 neutrino photons per m^2-s at a distance of 2.2×10^{20} meters from the Black Hole at the center of the Milky Way Galaxy. This would mean that

at distances much closer to the Black Hole the neutrino flux would be so large that the neutrino photons would be almost touching, providing a virtual wall of speed of light neutrino photons providing a reverse wall of Coulomb forces pushing everything else back into the Black Hole.

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