Gravity is Acting at Superluminous Infinite Speed, an Explanation for almost Everything, by the Authors' Rigorous Mathematical Proof and Overwhelming Experimental Evidence

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Abstract: *The present theory is based on two experimentally as well as rigorously mathematical verified principles: The 1stexperimental principle: 1st Continuous creation of matter from inside similar matter and with the same state of motion. The 2ndmathematically proved principle: Instantaneous interaction of gravity in the pre-relativistic Newtonian sense of absolute space and time. It explains the seen accelerated expansion of the Universe, self-formating its laws by natural selection; the assumed dark matter and dark energy. Also ,it predicts dark momentum and dark, angular momentum, the size of elementary particles, and the constants of nature. It explains spiral galaxies with remotely retarded spirals, with corresponding less linear tangential velocity.*

The theory predicts the aggregation of matter in solar systems, galaxies, a cluster of galaxies, clusters of local Universes, making the Big Universe, which we assume as a whole. It predicts that the Big-Bang is infinitely old and that it took place forever in the past, it will take place in the present and the future, with always accelerated expansion, as observed. It predicts stars' sequence from their birth to their death, like a supernova explosion, an inflamed-multiplied-explosion. This theory is against the once existence of Big-Bang, falsified by Earthly evidence of the existence of various local point mines of specific materials. For a specific Big explosion cannot have thrown specific materials at specific points under the surface (a few hundred meters deep, which implies existing since very recently) on the rotating Earth. However, these mines should have formed at most parallel to the Equator, due to the daily rotation of the Earth. It is certain, thus, that mines were created locally by a similar matter and with a similar state of motion, forming today's mountains and creating earthquakes with linear cracks to make more space inside the Earth to contain more materials. This phenomenon is similar to the known explosion of an egg, placed in a microwave oven to be cooked. The first internal heating of the egg from the inside to out first dilates the inside, which cracks the egg and causes the explosion. To our knowledge, there are thousands of such examples, from non-flying chickens to elephants and crocodiles. This theory is for everything to our knowledge, and especially, against Einstein's personal interest in supporting his Special Relativity at any cost.

Keywords: *dark matter, dark energy, infinite speed of gravity, creation of matter, creation of energy, super luminous velocity, explanation of spiral galaxies, non existence of big bang, prehistoric dinosaurs-mammoths, expanding universe.*

1. INTRODUCTION

The dark[1] matter is a hypothetical kind of matter that cannot be seen by telescopes but accounts for most of the matter in the Universe. The existence and properties of dark matter are inferredbytheir gravitational effects on visible matter, radiation, and the large-scale structure of the Universe. It has not been detected directly, making it one of the "greatest mysteries in modern astrophysics." Dark matter neither emits nor absorbs light or any other electromagnetic radiation at any significant level. According to the Planck mission team, and based on the standard model of cosmology, the total mass–energy of the known universe contains 4.9% ordinary matter, 26.8% dark matter and 68.3% dark energy.[2,3] Thus, dark matter is estimated to constitute 84.5% of the total matter in the Universe while dark energy plus dark matter constitute 95.1% of the total mass–energy content of the universe.[5]Astrophysicists hypothesized dark matter because of discrepancies between the mass of large astronomical objects determined from their gravitational effects and the mass calculated from the observable matter (i.e.stars, gas, and dust) that they can be seen to contain.Dark matter was postulated by Jan Oort in 1932, albeit based on flawed or inadequate evidence, to account for the orbital velocities of stars in the Milky Way, and by Fritz Zwicky in 1933 to account for evidence of "missing mass" in the orbital velocities of galaxies in clusters. Adequate evidence from galaxy

rotation curves was discovered by Horace W. Babcock in 1939 but was not attributed to dark matter. The first to postulate dark matter based onrobust evidence was Vera Rubin in the 1960s–1970s, using galaxy rotation curves.[6,7] Subsequently, many other observations have indicated the presence of dark matter in the universe, including gravitational lensing of background objects by galaxy clusters such as the Bullet Cluster, the temperature distribution of hot gas in galaxies and clusters of galaxies and, more recently, the pattern of anisotropies in the cosmic microwave background. According to consensus among cosmologists, dark matter is composed primarily of a not-yet characterized type of subatomic particle[8].

Dark energy is defined as an unknown form of energy that permeates all of the space and tends to accelerate the expansion of the universe.[1]Dark Energy is the most accepted hypothesis to explain the observations since the 1990s indicating that the universe is expanding at an accelerating rate. According to the Planck mission team, and based on the standard model of cosmology, on a mass-energy equivalence basis, the observable universe contains 26.8% dark matter, 68.3% dark energy (for a total of 95.1%) and 4.9% ordinary matter. [2–5]Again on a mass-energy equivalence basis, the density of dark energy (6.91×10^{-27} kg/m^3) is very low, much less than the density of ordinary matter or dark matter within galaxies. However, it comes to dominate the mass-energy of the universe because it is uniform across space.[6]

Two proposed forms for dark energy are the cosmological constant, a *constant* energy density filling space homogeneously,[7] and scalar fields such as quintessence or moduli, *dynamic* quantities whose energy density can vary in time and space. Contributions from scalar fields that are constant in space are usually also included in the cosmological constant. The cosmological constant can be formulated to be equivalent to vacuum energy. Scalar fields that do change in space can be difficult to distinguish from a cosmological constant because the change may be extremely slow.

High-precision measurements of the expansion of the universe are required to understand how the expansion rate changes over time and space. In general relativity, the evolution of the expansion rate is parameterized by the cosmological equation of state (i.e.the relationship between temperature, pressure, and combined matter, energy, and vacuum energy density for any region of space). Measuring the equation of state for dark energy represents one of the greatest efforts in observational cosmology today.

Adding the cosmological constant to cosmology's standard FLRW metric leads to the Lambda-CDM model, which has been referred to as the "standard model" of cosmology because of its precise agreement with observations. Dark energy has been used as a crucial ingredient in a recent attempt to formulate a cyclic model for the universe.[8]

Many things about the nature of the dark energy remain matters of speculation in the literature. The evidence for dark energy is indirect but comes from three independent sources:

- Distance measurements and their relation to redshift, which suggest the universe has expanded more in the last half of its life.

- The theoretical need for a type of additional energy that it is not matter or dark matter to form the observationally flat universe (i.e. the absence of any detectable global curvature).

- It can be inferred from measurements of large-scalewave-patterns of mass density in the universe.

Dark energy is thought to be very homogeneous, not very dense and is not known to interact through any of the fundamental forces other than gravity. Since it is quite rarefied (roughly 10^{-30} g/cm^3) it is hard to detect in laboratory experiments. Dark energy can have such a profound effect on the universe, making up 68% of universal density, only because it uniformly fills the otherwisespace. The two leading models are a cosmological constant and quintessence. Both models include the common characteristic that dark energy must have negative pressure.

2. PRINCIPLE 2: GRAVITATION PROPAGATION HAS AN INFINITE VELOCITY

The gravitation source emission differs fundamentally from light radiation. Gravity sources in opposition to light sources do not consume energy, no matter their intensity. Light sources consume energy proportionally to the light emitted. Gravitational waves will exist in the theory of gravitation, in which the gravitational interactions propagate at a finite speed. However, it is not clear what we mean by gravitational interactions propagating at a finite speed. For example: shall we consider the Earth's delayed gravitational notification to the Sun about its present position + the Sun's delayed

gravitational answer of attraction to the Earth, where at the end (see also Appendix) the delay is doubled, or only the single delay of the Sun occurs, in which case the Sun knows the position of the Earth exceptionally instantly, or mysteriously. The literature does not clarify this point. Note that we cannot consider that the Sun propagates its gravitation all around either the Earth is present or not. This is a fact in which the Sun's gravitational propagation is equivalent to an instant propagation, i.e., of an infinite speed. In finite gravitation propagation, the creation (see Appendix) of energy and angular momentum will always occur in either case, never observed.

On the contrary, light interactions adjust the conservation of energy, momentum, angular momentum, locally by the carrier of energy, momentum, angular momentum, the "photon." Gravitation has no similar carrier, like the photon, for example, to adjust the conservation laws, with a photon at the finite speed of propagation. Thus, **gravity's propagation speed is fundamentally different. It has to be infinite**.

Concerning the other forces, such as the strong-nuclear force and the weak force, the speed of propagation is untested and unknown.
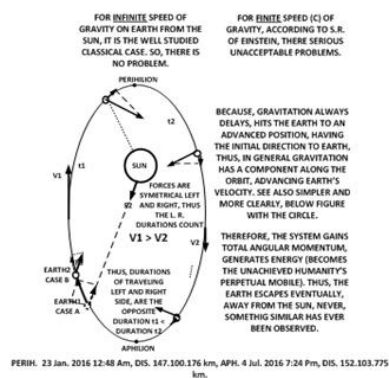

Fig1, *The elliptical orbit of the Earth, eccentricity [28] not to correct scale. Rotation of the orbit is clockwise. For infinite speed of gravity, there is no problem. However, for finite speed (c) of gravity, according to Special Relativity of Einstein, there are serious problems, increasing total angular momentum, velocity, and energy causing the planets to escape from the Sun and planets of other planetary systems. Nothing like that has ever been observed for any planet of any planetary system, and systems with satellites. Thus, leading us eventually to death, the Moon will have escaped from the Earth.*
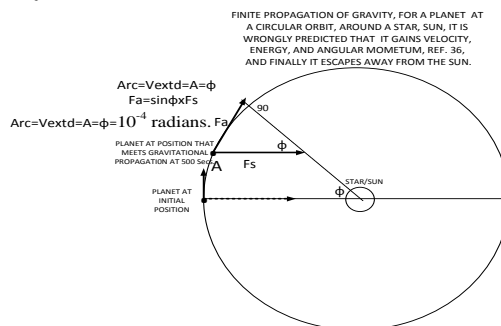

Fig2. *Not to correct scale. A cyclic orbit. The orbits of most of the planets Aphrodite, Earth, Jupiter, Kronos, Neptune, Uranus, Poseidon, except for Hermes, Mars, and Pluto, approximate very much that of a cycle. Due to the retardation of the propagation of gravitation=Fs=1024kg x5.9x10-3m/s2 (see Appendix), from the Sun on the Earth, according to the upper-speed limit of Special Relativity of Einstein, there is always an acceleration of the orbital velocity force Fa=sinφ Fs=10-4x1024kg x5.9x10-3m/s2 (see also Appendix), from the Sun to the Earth, and similarly to other planets, approximating cyclic orbits, and similarly to satellite systems, all to which work is produced!, violating energy conservation!*

The Earth would have doubled the distance around the Sun in $\varphi=10^{-4}$ **radians, and every 500 s;**see Appendix and Fig.2, and would have decreased to less than half its escape velocity υ_E, (υ_E as $1/R_P^{1/2}$, see Appendix),in $4\pi/\varphi,=12.56/10^{-4}=1.256x10^{-3}$ advancement radians of orbital rotation. Earth would **have escaped** the Sun in less than the escape velocity/the present velocity by the increased velocity of the orbit and Earth would have posted a new position not corresponding its velocity, according to the Universal law of gravity as all the other planets have lower orbital velocity, the farther out they are.

The nonsense of Einstein's interest and obsession for the maximum finite velocity C of the Universe was just to support and publicize his Special Relativity!

Gravity has an infinite speed of propagation!

On the contrary, a **gravitational-wave observatory** or a **gravitational-wave detector** is any device designed to measure gravitational waves. The existence of gravitational radiation is a feature of many theories of gravity that have an upper-speed limit c, for the speed of gravitational interactions, influenced wrongly by Special Relativity[9] of Einstein. Since the 1960s, gravitational-wave detectors have been built and continuously improved. The present-day generation of resonant mass antennas and laser interferometers has reached the necessary sensitivity to detect weak gravitational waves from various sources in the Milky Way. Gravitational waveobservatories are the primary tool of gravitational wave astronomy. However, no gravitational waves were detected by 2015.

Gravitational waves were claimed to be detected 100 years after Einstein's claims, on **February 11, 2016.**

First of all, let us clarify a few things that were arbitrarily adopted by the various science speakers involved in the supposed detection; I think all of our readers will agree with us. The relevant detectors were two distant vibrational detectors, sponsored by the National Science Foundation, USA, operated by both Caltech and MIT. Both detectors agreed with each other, in both the shape and the receiving time of the signal disturbances. However, this fact may not be caused by **gravitational waves**, **but by instantly propagating gravitational interactions**.

I started writing this paper before the announcement of the supposed detection of gravitational waves, for I knew the first thing needed was a finite speed of propagation of gravity, though I supposed an infinite speed for it. However, I understood and realized, that for the detected vibrations of February 11, 2016, there was no need for a wave propagation of gravity, as the example of the vibrating stick has shown below. Then I started to continue writing the present paper, without any worries, but happily, that for the announcement of February 11, 2016, there was nothing to be changed. First of all, let me clarify a few things that were arbitrarily adopted by the various science speakers involved in the supposed detection; I think all of our readers will agree with us. The relevant detectors were two distant vibrational detectors, sponsored by the National Science Foundation, USA, operated by both Caltech and MIT Universities. Both detectors agreed with each other, in both the shape and the receiving time of the signal disturbances. However, February 11, 2016, occurrence may not be caused by gravitational **waves**, but by For example, suppose I am holding the one end of a long solid stick, and I am vibrating it back and forward, disturbing a gravitational wave detector, which gives the same disturbances as those detected. However, the assumed real detectors should actually differ in phase, which was not detected and so not reported. The findings agree with my example with the stick. Indeed, all the points of the stick move back and forth, simultaneously with the same phase, having nothing to do with waves. Exactly the same thing happens with the stick, causing instantaneous interactions at a prolonged distance, but producing no transmission (transportation) waves, as the gravitational source[24]is supposed to be the two "rotating black holes."A black hole is theoretically originated by division by zero, unacceptable mathematically. On top, a black hole takes infinity years to form; observationally it is very doubtful whether it really exists or not. Two rotations of them supposedly should have caused double vibrations with a time delay difference from one to the other, as their distances change accordingly from us. No delay was reported as they actually were transmitting to us gravitational interaction at infinite speed.

Observations[10] of the Hulse-Taylor[11] binary pulsar, whose orbital period is changing possibly as predicted for energy loss to gravitational waves, is the only weak evidence favoring gravitational waves, according to an independent branch of observational Astronomy, called**: Gravitational-wave Astronomy**. However, in our opinion, it is too weak evidence, compared to the vast amount of the absence of detection of these waves in the laboratory here on Earth. The Earth has not yet escaped from the Sun, which it actually should do every six months according to the ideas of A. Einstein; see Appendix. Moreover, a strong supporting argument, which comes from the principle of "Equivalence" in the Foundations of **General Relativity**, is: A gravitational field is equivalent to accelerated frames, which are observed anywhere in the Universe with an intensity of gravity, that is constant (not observed so), and it is the opposite acceleration of the accelerated frames of reference. Thus, the observed gravity via (an) accelerated frame(s), is sensed instantly all over the Universe. That is

equivalent to saying: Gravity's propagation velocity is infinite and instant. However, indeed, a contradiction with the Theory of Special Relativity, which we cannot help.

In view of this fact, we shall correctly assume that the gravitational interaction propagates at infinite speed as we specified above for theories with infinite speed of interaction, **in the pre-relativistic Newtonian sense of absolute space and time** of Ether, despite the assumptions of the theories of Special and General relativity[10], a fact (infinite velocity) that should be a problem of these particular theories, i.e., Special-General Relativity, see Appendix.Thus, this should make the Universe finally Euclidian and its space etheric, agreeing with the mysterious radiation characteristic constant resistance[a]of 73 Ω[14] of empty space (for half wavelength broadcasting antennas), giving to empty space a substantial and observable characteristic of not empty space, say of a specific constant of Ether-space property of 73 Ω, as above.

This assumption of infinite speed for the propagation of gravity makes fundamental differenceto Electrodynamics[b] with the finite speed of interaction, than that of the speed of light c. This difference is also the reason, in our opinion, that gravitation, and electrodynamics or with the usual term electromagnetism, cannot be unified in one theory. Both gravitation and electromagnetism are two separate, distinct properties of matter that cannot be unified due to different propagation speeds.

3. PRINCIPLE 1:CONTINUOUS CREATION OF MATTER $\frac{dm(t)}{dt}$ = KM(T) INSIDE SIMILAR MATTER

The conventional creation of the Universe is based on the violent explosion before 13.7 billion years ago, called the -faults in which all the matter and energy was created at once and dispersed all around to form all the stars, towards a steady-state cosmology of the expanding Universe, a modification of Fred Hoyle'screation[13]of matter in a vacuum.

Matter and antimatter in one location annihilate each other. The residual matter or antimatter remains; then, the residual is created and multiplied to dominate. Therefore, in our location of the Universe matter happened to remain and multiply. In our location, the matter was the residual and dominated, and no substantial anti-matter remained to be practical continuously also created and multiplied.The introduction of the creation of matter makes applicable the mechanics of "natural selection" which formates-modulates the laws of the matter by natural evolution/selection, and also every other law of the Universe. The Universe spaciously is also infinite, due to the continuous creation and expansion of matter, since $-\infty$ time (see below). There are many infinite extraterrestrials like human entities, they also know we exist too, and we belong to infinite populations of similar entities, but they are not interested meeting us in particular. However, from time to time (that for the Universe scale is relative to us a too long duration), by mistake they do indeed visit us, as our telephone may ring by mistake though the wrong telephone calls do not relatively increase in frequency because the total number of telephones is increasing too or becoming practically infinite. The ratio:

(wrong telephone calls)=(wrong telephone receivables), and: (wrong telephone calls)/ (total telephone calls)=a constant, say 1/1000; therefore, obviously: (wrong telephone receivables) = the same constant=1/1000.

The general hypothesis of us is without "a once upon a time creation" with a huge-huge explosion. Our hypothesis is continuous, too small always occurring creations that are difficult, complicated to be noticed in the laboratory. The creation is proportional and similar to the existing matter and energy, explaining orogenesis, (mountain creation and growth), volcanoes and earthquakes by the increased mass-energy, inside the Earth, and thus Earth[30] is expanding[30], causing vibrations (earthquakes) and sometimes breaking the Earth's surface in cracks-faults. With an enormous other infinite experimental evidence, but in larger than laboratory scale in mass size and one man's lifetime, to be noticed in the laboratory.

Therefore, all the Universe is continuously created like the Earth,and expanding with an accelerated expansion, depending on the local increase in the meantime density; but the expansioncounterbalances the increased density.

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[a]http://en.wikipedia.org/wiki/PSR_B1913%2B16,

[b]http://en.wikipedia.org/wiki/Radiation_resistance

4. Evidence Against the Big-Bang, and Evidence Favouring the Continuous Creation of Matter $\frac{dm(t)}{dt} = Km(T)$ Inside Similar Mass

The main impossibility of Big-Bang, supposedly taking place 13.7 billion years ago, is the fact the time starts with it. It does not specify what was before it. Also, the Big-Bang, which was a local singularity, with the Universe not being homogeneous (the same all along its space) and isotropic (the same in all its directions), against the experimental observation of a Universe to be both homogeneous and isotropic.

Other enumerated impossibilities of the Big-Bang are as follows:

1. Extinction of dinosaurs and other prehistoric mammoths.We can expect the extinction of the prehistoric mammoths, not by the arbitrary assumption, for which there is no evidence, that a big meteorite hit the Earth in the past and extinguished all the big animals. However, the natural increase of the mass of the Earth, its gravity, being proportional to the mass of the Earth, became stronger, and thus, the big mammoths became heavier to the point it was difficult or impossible to walk with result, the prehistoric mammoths type,became extinct, except for the elephant with the very big feet, the crocodile having very short feet, and most of the time sitting on the ground with his belly or swimming in the water that also became heavier. However, the same amount of heavier water holds the same heavier animals, according to the principle of Archimedes. The same can be observedwith other animals being in the water, like the hippopotamus or the shark, the whale, and all the fishes.

2. Large birds, like chickens, ducks, pelicans and so on,hardly fly now: which evolved the same way. Thus the process of evolution becomes discontinuous. The explanation is obvious and similar to the above: that the mass of the Earth in the meantime increased; the Earth's gravity also became stronger,and large birds became extra heavy to the point that they could not fly anymore.Therefore,large birds having the regular size of wings do not fly now. However, birds like the eagle, having extra-longwing openings, over 2–3m, were not severely affected; thus, they still fly today.

3. Classical Archeology is synonymous with systematic excavations. The recent spectacular excavations in Amphipolis, but also Ancient Troy, Knossos, the city of Eleusis, and many other such places, were discovered by excavation and the removal of "in the meantime" coverage by the created ground and soil. By the same causes, the monastery of San Juan Capistrano (see picture Fig. 9. below) California U.S.A., is lower than the mean level of the ground, as with all the old churches and archeological sites in Greece.

4. Mountains that might be expected to have covered all the archeological sites became bigger themselves, to the extent that a small hill eventually becomes a large mountain by orogenesis (mountain self-creation and self-growth).

5. Pangaea, with South America fitting Africa, and making the Earth one entire continent, then separating as they are now by inflating or expandingcreated, in the meantime, the mass of the Earth.

6. Water fountains on the top of mountains; all over Greek islands in the AegeanSea, for example. The top of mountain Sarisa on the island of Andros provides the famous mineral water, "Sarisa."The water could not have come from somewhere else, like the higher mountains, The Alps, and as narrow-minded Geologists suggest, bringing drinking water under the Aegean Sea. I could ask the same question for the Alps: Where did the Alps get the water from first? Instead, it is created there in the great mass of the mountains, escaping either from the feet of the mountain or anywhere else that it was possible to escape. Water is created mostly on our water-Planet-Hydrosphere. The term "Atmosphere,"means "water-globe"; Atmos in Greek means water in the gas form: vapor.

7. Paul Laviolette's[15] star-planet mass-luminosity diagramFig. 7shows that the internal heat production of the giant planets is of the same origin as that for red dwarf stars. The heat of the Earth, we know from the various volcanoes, is not in general radioactive. Therefore, the heat is not in general nuclear. However, based on Paul Laviolette's diagram, excepting the Earth, Fig. 7, which confirms that the stars' heat (luminosity) is not initially nuclear and later becomes thermonuclear radioactive, above a certain point of the stars' temperature.

Note: The only planet in the Solar system where nuclear fusion occurs is the solid Earth16.Moreover, thisis because the combination of high pressure and high temperature overcomes the Coulomb barrier of repulsion, and creates nuclear fusion. Even the heaviest of the planets, gasplanet Jupiteris about tentimes too small to achieve the pressure required to sustain fusion.

Mines are located near underground concentrations of certain materials, like gold in PangeonMountain, Greece, pure sulfurin Chalkidiki, Greece, Bauxite in the Mountain Parnassos, Greece, and all otherworldwide mines.

Gold is an inert element, so it cannot have been formed there by a chemical process. According to the Big-Bang Theory, it should have arrived from the sky on the rotating Earth. Therefore it should have occupied a parallel circle or a parallel arc, but systematically it does not. On the contrary,sulfur is a very active material, and as such should have formed sulfur salts. Unless it stayed there when it arrived from the sky too.However, in that case, it should similarly form a parallel circle or a parallel arc, but systematically it does not form. The only option that remains is: it has been formed thereBauxite contains much aluminum, an element between Gold and Sulfur in the periodic table. Therefore, the same holds as for these two elements to which we have referred just above. See more various pictures, with matter creation of stars, of San Juan Capistrano USA Fig. 9, Amphipolis GreeceFig. 18,as well as in the following section.

5. STARTLESS AND ENDLESS, INFINITE, STEADY-STATE, EXPANDING UNIVERSE,

Continuously creating matter$\frac{dm(t)}{dt}$= km(t), from -∞ time to +∞ time

Matter and Energy, the conjugate quantities to time in the Theory of Quantum Mechanics, is continuously created and increased in our Universe, as time increases from -∞ time and will continue forever to +∞ time, making the Universe doubly infinite, homogeneous and isotropic. Therefore, the questions of what existed before the Big-Bang and where the Big-Bang is located, remains unanswered, as the time started -13.7 billion years ago and thus the Universe is not isotropic and homogeneous, because of the Big-Bang. However, this Universe defect does not exist in our Theory.

Similarly, the mass will keep increasing forever proportional to each time existing mass:

$$\frac{dm(t)}{dt} = km(t) \tag{1}$$

This a simple first-order differntial equation, with an exponential explosion solution

$$m(t) = ke^{kt} \tag{1S}$$

which increase the mass shown inFig3,4,5,6,7,8.9,10,11,12,13,14, 15,16,17,18, 19,20,21,22,23, also and after a sufficient t time elapses, solusion makes an almost **vertical growth**, which corresponds to an **explosive increase** and in the case of the stars causes a super nova explosion; see also Fig. 6. This makes the already infinite Universe doubly infinite, startless and endless, as time is doubly infinite, startless and endless.

6. MASS CREATION

Directly Observable Star's Sequence Growth, from their Birth, to their Death by an Super-Explosion, which in Reality is an Inflammation Multiplication Explosion, Shown by Pictures Fig. 6 And Eq. (1).

Experimental Evidence of Mass Creation: Whiskers[20-29]of inorganic matter is the name of tiny pieces of grown matter from matter. Similarly, integrated circuits of electronics with too-close conductor lines create problems for their boards by causing short circuits among the various conductor lines in too close proximity together. Therefore, engineers solved this problem by separating these conductor lines at a sufficiently far distance.
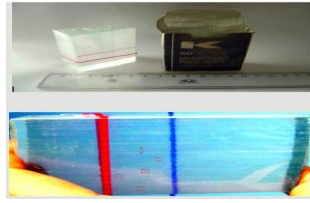
Fig3. *Examples of the creation of tiny matter Eg. (1,1S), spots in packed and shielded sterilized and transparent glass slides of microscopes, at least 20 years old, which every professional biologist has observed in practice, when the pack is old enough, without knowing or questioning the origin of material spots*
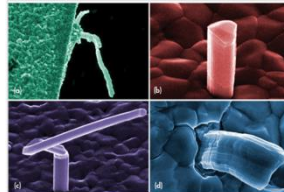

Fig4. *A typical whisker[23–29]is self-created and grows, Eg. (1,1S), from 1 to 5 μm in diameter and between 1– 500 μm long, as seen in this cross-section (b). They can come in different shapes, including kinked (c) or with rings (d).*

Mass (solar masses)	Time (years)	Spectral type
60	3 million	O3
30	11 million	O7
10	32 million	B4
3	370 million	A5
1.5	3 billion	F5
1	10 billion	G2 (Sun)
0.1	1000s billions	M7

Fig5. *Table representative lifetimes of stars as a function of their masses.*

The smaller their mass, the longer their termination- reaching the explosion state- a progressively inflamed multiplication explosion Eg. (1,1S). Every object in the Universe including the dilating Earth, with growth now 3 mm per year, has an unavoidable growth and final termination-explosion, spreading new objects to repeat the same process, and so on again, shown, also in Fig. 6 below: the greaterthe grown size, the smaller is its expected time of deaths.
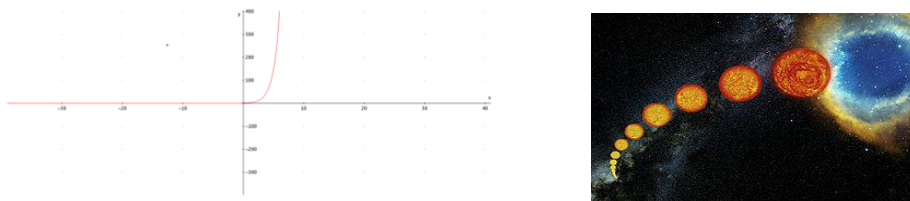
Fig6. *What follows to an exponential function, (upper part of the photoes) after a relative small increase, is the entranse to a vertical increase to infinity, coresponding to an explosion phase.Thisis the behavior andfate of every stone, no matter how much small it is in the space of our Universe.*

The exponential solution, Eq. (1, 1S), is represented by the life cycle of a small object to a Sun-like star, beginning as a main-sequence star at middle left, then expanding through the subgiant to giant phases by continuously creating and growing its mass and thus growing bigger, until to its vertical inflamed explosion state by a so called supernova explosion to form a planetary nebula at the upper right.
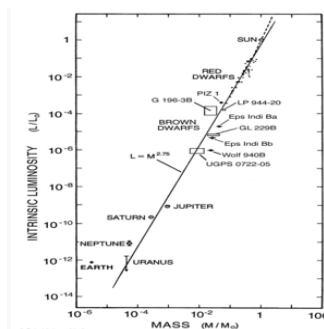

Fig7. *Paul Laviolett[15] expansion of Eddington's[18] "stars mass-luminosity diagram" to a "planets/stars mass-luminosity diagram", Eg. (1,1S).*

Earth is correctly out the main line sequence because Earth[16] is the only planet in the Solar system where nuclear fusion occurs. This is because there are the means to beachieved the combination of high pressure and high temperature to overcome the Coulomb barrier of the atoms. Even the heaviest of the planets, Jupiter, is about tentimes too small to achieve the pressure required to sustain fusion. The dashed line kicking offline, near the top of the diagram, is the point of luminosity or temperature of the stars, just where the thermonuclear reaction starts too; they add to the luminosity of the stars, besides the continuous self-creating of mass-energy of the star, which implies more luminosity, in the meantime, to the bigger star.

Fig8. *Coriolis Effect For A Rotating Galaxy*

The depiction of generated matter, Eg. (1,1S)near the core of a naturally rotating Galaxy with constant angular velocity ω. The corresponding tangential and linear velocity to the angular velocity ω at the location of generated matter is $v_i=\omega r_i$. Normally, for the similar rotating **solid**disc, the outer linear velocity increases proportionally to the radius r: $v=\omega r$.The created matter increases the density and creates an extra pressure; therefore, the total pressure creates an outward expansion. The created matter's location radius r_i increases to r_f with $r_f > r_i$. The state of motion of the created matter remains constant, as postulated. Therefore, the tangential and linear velocity in the new location is the previously mentioned velocity $v_i=\omega r_i$, instead of $v_f=\omega r_f$

It is$r_f>r_i$, and therefore, the velocity v_f at the final location is as v_i, smaller than that it should be for a solidly rotating with ω, disc. Thus, the remote matter at the outskirts of a Galaxy, retards concerning the matter closer to the center, making the Galaxy a Spiral Galaxy. The Coriolis effect, similar to the Coriolis effect of the rotating Earth, is now predicted for the rotating Galaxy in our "Theory of Everything".

Fig9. *A low-level church in San Juan Capistrano Mission in California, USA, with no stair going down. The main entrance of the church, from inside, there exist two steps, going up to the outside ground, indicating the exact time when the church was built 250 years ago. It is also the case with the much lower buildings thereconcerning the outer ground,Eg. (1,1S)*
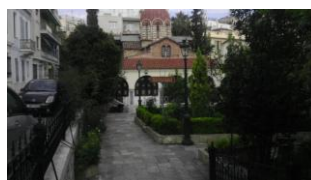

Fig10. *A lower levelr (by 1.5 m) concerning the present street, excavation around an old (about 1000 yrold) Greek OrthodoxChurch, by Lysikratous Street, near Acropolis, Athens, Greece, according to*

Fig11. *The same Greek Orthodox Church as above, with the staircase going down 1.5 m. According to Eg. (1,1S).*

Fig12. *In the same basement-casement-excavation, two ancient columns that existed about 2500–3000 years ago. Now the column base depth is even lower than the church about 2.5 m total depth because the columns are older than the church. This means that the church was built later than the columns when the ground had risen higher, but not at today's street level in accordance to Eg. (1,1S)*
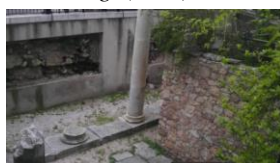

Fig13. *The same columns as above; the base depth of about 2.5 m is clearly seen. The conclusion of these pictures is: the older the findings are, the lower the foundations are of the present street level: about 1 m deeper per 1000 years. Eg. (1,1S)*

These findings are common and multiple in Greece, and so the many findings conclusions become obvious for someone living particularly in old Athens city, Greece. The columns and the Churchesare made of brought materials, so their abundance around is very limited there. This fact explains why the findings themselves do not grow, as it is typically the case of the soil of the ground. Recall that matter is created by similar mass, proportional to the quantity of the existing similar mass.

Fig14,15. *Two photographs of buildings lower than street level, old Orthodox Church nearAcropolis, Athens, Greece, Eg. (1,1S).*

Fig16. *Similar as the above.*
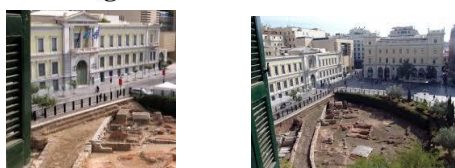
Fig17. *Two photographs of the excavated Square Kotzia at the beginning of Aiolou street in the very center of Athens, Greece.The difference in the levels of today's road and the ancient road are clearly shown in this excavation, according toEg. (1,1S).. The entire old city of Athens is buried under the present, with the surrounding mountains also increasing as indicated by similar archeological findings buried on them. From these pictures, as well as from the other pictures, it becomes clear that the Earth is continuously growing in size,Eg. (1,1S)..*

Pictures From Amphipolis[17],Showing Direct Soil Creation And Growth[c].

Fig18. *Casta little hill in Amphipolis, with the tomb entrance and a visible lion at the top of the hill, as a landmark, for the famous Macedonian tomb, which was only recently found and excavated.*

[c]http://en.wikipedia.org/wiki/Dark_matter

Fig19. *The entranceof the excavated tomb again, with decorating sphinxes, which originally were covered by the soil at the present ground level, proving Eg. (1,1S)..*

Fig20. *The elevated entrance is seen from a little farther away. From here, it can be seen that no substantial water could enter from the outside, nor could practically water enter from the top of the tiny hill, to carry soil to cover the door and the inside of the tomb entirely to its ceiling. The soil was* **generated there locally,** *Eg. (1,1S)..*
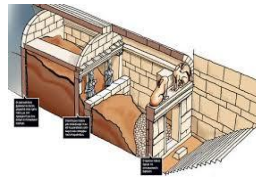
Fig21. *The depiction of the inside of the tomb that was initially full of soil up to the ceiling, which could be slowly excavated and removed out. The hard soil removal lasted six months with at least several dozens of workers, working with state-of-the-art technical equipment.*

Fig22. *Depiction showing the art inside of the tomb with statues of sphinxes, caryatids, and the pictured mosaic floor, also indicating that the builders would not have the intention to cover their art with soil to the inside ceiling of the structure; rather they wanted their art to be seen by visitors, placing a landmark of the lion on the top of the Casta hill.The tomb, at least once or twice, was full of soil; automatically self-packed to the top of the ceiling. After the soil was excavated and removed out, the engineers immediately then, secured and reinforced the ceiling with scaffolding, to avoid the possibility to fall, for, in the meantime, the ground above was progressively heavier than the time the tomb was designed and built, supportingagainEg. (1,1S)..*

Fig23. *Two photographs of buried distorted skeletons found deep at the end of the tomb, which indicated that previous thieves had reached the dead bodies to steal personal jewelry and other personal items. We do not know whether they also had to remove ground and soil. However, what is certain is that they will not bother after they had finished their job, to replace any possible soil they might have found initially, and had carried a new soil from outside. The ground there had been created automatically by itself by the similar massive ground, as we should have expected by the principle of "continuous creation," which creates mountains from the same material of the ground of the Earth. Typical archeological findings are discovered always covered by created soil, similar to the existing around the abundant soi, all sugesting Eg. (1,1S)..*

Natural Selection is Formatting the Laws of the Universe

The matter is similarly created, but we do not mean identically, inside similarly existing matter. This fact allows variations to the created matter and slight modifications. Assuming that this process continues to some more substantial variations of created matter, depending on these new variations, the matter may completely alter itself, to harmonious symbiosis with the rest of the Universe where it exists. When the symbiosis is 1. harmonious, the creation of matter dominates in this Universe; or 2.

leads to complete destruction. In the favorable case 1.,it formsthe laws of this Universe by (Darwin's) natural selection. This favorable case happened with matter and not by the unfavorable case (anti-matter) in our Universe. This favorable case was formatted as well as all the other material physical laws, physical constants, material constituents, such as elementary particles, and other phenomena, which we discover now.

7. CONCLUSION

Dark Momentum and Dark Angular Momentum

For a rotating body, its mass continuously increases, similarly and proportionally to the existing mass and with the same state of motion. Obviously, its mass, energy, momentum and angular momentum will also increase. This is dark matter, dark energy, dark momentum and dark, angular momentum, which is continuously created in our expanding Universe, producing a steady-state, homogeneous and isotropic, contrary to the obvious inhomogeneous and non-isotropic Big-Bang theory, which does not agree with experimental observations.

Infinite Speed of Propagation of Gravity

Gravitational propagation is not like light propagation, requiring energy for photons to propagate. Never has energy been observed to be lost only by the very existence of a massive and gravitating body for billions of years in our Universe. For an understandable and a natural explanation, we adopt Principle 2: the gravity speed is infinite. We do this because the "speed of gravity" wasfinite and took some time to reach from an arbitrarily moving source to an arbitrarily moving and attracted body. Then, the arbitrarily moving source and the arbitrarily moving attracted body would have moved (i.e.changed position) in the mean time. Thus, the "action and reaction" principle would have been violated, as well as the conservation of Energy and Angular momentum, too. The speed of the supposed gravitational waves has not been experimentally detected yet[19], despite great effort. Moreover, we conclude that our hypothesis of the infinite speed of gravity produces the non-existence of gravitational waves; they are impossible to be detected (see below).

Suppose changes in a gravitational field propagate at infinite speed. This is the speed at which any changes of matter result from simultaneous changes at a distance. If the supposed wave speed c is $c=+\infty$, then $c=f\times\lambda=+\infty$, where f is the frequency of the wave and λ its wavelength. Then, this frequency f is infinite; but in practice, a frequency is impossible to be infinite. For no source may oscillate or vibrate infinitely quickly. Therefore, λ should be infinitely long. This means the interaction propagation wavelength and wave changes at the beginning occur simultaneously at the end of the wavelength, which is at infinite distance. Thus, the wave interaction is instantaneous at infinity. This means actually there is no wave and itisnot characterized by phase changes, with a propagation interaction in the infinite period.

Dark Matter

The continuous creation of matter in a similarmatter and its instantaneous gravity evidence proceeds (i.e.spreads out first), compared to the retarded (delayed) visible light evidence that we receive on Earth. Theinstantaneous and too-early gravitational response to Earth of created matter may be called "Dark Matter."Indeed, the existence and properties of dark matter are noticed naturally and obviously by its instantaneous gravitational effectsd.

General

This theory, based on the experimental evidence of "continues creation of similar matter inside only matter, propotionally to it", as well as, the experimental evidence of no gravitational waves which imply instantaneous velocity of propagation of gravity, predicting the existence of dark matter, dark energy, but also predicting dark momentum and dark angular momentum, which nobody talks yet. Also in a Euclidian Big Universe, as a result, we have an accelerated expansion of this Universe initially, with dark matter and energy, dark linear momentum, and angular momentum; spiral galaxies with retarded remote linear tangential velocities for the first time are explained here, aggregation of matter in solar systems-formation of planetary systems, galaxies, cluster of galaxies, clusters of Univercies, and so on. The Big Universe is infinitely old and in an infinite Euclidian space,

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[d]http://en.wikipedia.org/wiki/Mass%E2%80%93luminosity_relation

and that it will expand forever in future, with always accelerated expansion. We explained the Star's sequence from their birth to their death, the supernovaexplosion, as an inflamed multiplication explosion.

Our first hypothesis of matter creation gives an explanation forEarthquakes, Volcanoes and the formation of mountains, that is, the continuesoro-genesis (mountain creation and grow). For the infinite expanding homogeneous and isotropic Big Universe and it's infinite expanding homogeneous and isotropic subclass of extraterrestrials, we can make the unusual forecast, for non-visiting us infinite many expanding homogeneous isotropic extraterrestrials: There are infinitely many and increasing advanced extraterrestrials, with no particular interest, visiting us, if they know about us.Occasionally, by accident may be, and from time to time, they do visit us at a rate which is similar to the rate of "the number of wrong and accidental telephone calls, which, nevertheless, does not increase, though, the number of the total telephone calls around, increases continuously." Similarly, the rate of the visits to us of the expanding infinite many extraterrestrials do not increase to infinity to visit us, but the visits remain finite and very rare.

Finally, there was no Big Bang, which is also falsifiedby the homogeneity and isotropy of space. The same time, there is creation of similar matter and itsthus implied constancy of all the so-called "constants" of nature. We all explained, from dark-matter to anti-matter, the particular size of elementary particles (creation from similar matter), to extraterrestrials' behavior, the impossibility of unification of Gravitation of the infinite velocity of propagation, with Electricitromagnetism of the finite velocity of propagation.

The creation of matter is directly observed[16,24,25,26,27,29]and by

Fig3,4,5,6,7,8.9,10,11,12,13,14,15,16,17,18,19,20,21,22,23, also by more other evidence described above. However, scientific community's conservatism is afraid of fundamental changes as in all past times and does not talk about this fundamental fact of matter creation and the fundamentally needed change of principles. So, for this theory, is a fundamental fact, the matter creation in the infinity of our Universe, the infinite velocity of propagation of gravity, and the formation-evolution-modulation of its laws.

S.R. opposes our second principle, which S.R. we do not respect very much for its paradoxes such as the self-destructive prototype paradox of us, contradicting Special Relativity and General Relativity: According to the first theory all velocities are equivalent, (contrary of observing evidence Ref. 46), provided they are smaller than the velocity of light c, which is an upper limit for this theory, that predicts: otherwise the masses of moving objects become too big to infinity.Therefore, we ask the following question: "Why a hitting the Earth, electron or a proton with an enough big velocity, very close to the limit c, and with closely to infinite mass and energy, has not destroyed yet the Earth, or the planets, or the Sun and many other stars, so that, this case of electrons-protons to be the Stars main cause of death and not the supernova explosion, due to an assumed gravitational collapse.Why objects, like the electron, and proton, and infinitely many other particles and bodies do not exist with enough big velocities, close but smaller than c and have not destroyed yet too many of the said above celestial bodies, according to the theory of Special Relativity? What is this theory waiting for? It should have got infinite many opportunities today, from the infinite "Big Universe." Also for the second theory, we have a strong self-destructive argument, that should be repeated here, and we first state that: Using the principle of "Equivalence," acceleration should be sensed instantly all over the Universe. That is equivalent to say: Gravity's propagation velocity **is infinite and instant**. However, indeed, this is a contradiction with the Theory of Special Relativity and with the assumption of Einstein "In the Universe, there is no higher velocity than c." The contradictions of General Theory, which we cannot help, but no other than **Einstein who should withdraw his general assumptions**: The contradictions caused primarily by the assumption for the upper limit of the velocity c in the Universe, which velocity c, causes to gravity the biggest contradictions in nature in generating, Fig. 3, Energy, Momentum, and Angular momentum, instead of conserving the observed and verified all three of them.

Similar conclusions with the gravitational field, are true. Primarily for the infinite speed of propagation of the electrostatic Coulomb field and the magnetostatic Ampere[29] field. As both fields do not consume energy to propagate. Both, the charge is not diminished (consumed) and the constant current is not opposed, if it flows a superconductor with no ohmic resistance or in general, reactance.

We better stop here to a finite point, but before we do so, we should summarize: The limitation of the velocity of light c is caused by Einstein's obsession for his interest to save andpublicise his Special Theory of Relativity. The evidence of invariance of the speed light is only local[29] in the vicinity of Earth. The universal upper-velocity limit is equivalent to the universality of S.R., explaining like this, the wrong, strong obsession and personal interest of Einstein, misleading wrongly the general literature, too, for all static force interactions like gravity. Velocity c is left only as a limit for literature for light and matter. However, in practice, there is also evidence against this: "Astronomical experimental facts that galaxies move away with faster[30-31]than the local velocity of light". Therefore, the "Theory of Everything" also verifies to the first order (not only to the expected second order, as usual) of Taylor expansion, the failure of S.R. and the failure of A. Einstein.

Conclusions

The velocity of the Earth in orbit 2, is, in fact, $= \upsilon E2=(GMS/2R)/2 <\upsilon E1)= (GMS/R)/2$, smaller than orbit 1. Indeed, it is both experimentally (NASA Planetary Fact Sheet) and theoretically impossible for the velocity in orbit 2 to increase, according to Einstein's assumptions, and Special Relativity's predictions. This must not violate only the "action-reaction", but also for quantitatively contradicting Newton's universal law of gravitation. Because of the hypothesis of Einstein of delayed propagation of gravity with maximum speed c, this velocity vE of Earth wrongly increases with time. Moreover, in about six months, the Earth should have been frozen at twice its distance from the Sun, between the initial position of Mars and Jupiter, repeating this increase of distance every six months. Soon, after about 50 years, the Earth and humanity would be too far away and completely frozen and died at about -225°C (see NASA Planetary Fact Sheet, two degrees above absolute zero, and equating to the temperature of 2.7°C of background radiation, which means that the Earth cannot be at any lower temperature than that! Mars and Jupiter with the other planets would also have moved farther away. Such an effect has never been observed, which is why we are alive now! On the contrary, a slight increase has been reported in recent temperature, with the melting of the ice at the North and South poles of the Earth.

Therefore, in fact, the (wrong) hypothesis of Einstein for c, cannot be correct: the only purpose of Einstein was to secure his Special Relativity by making the wrong, arbitrary assumptions unproven in his time. The velocity of gravity has to be infinite to predict the astronomical facts correctly! See Fig. 24, corresponding to the wrong hypo the sis of Einstein.:
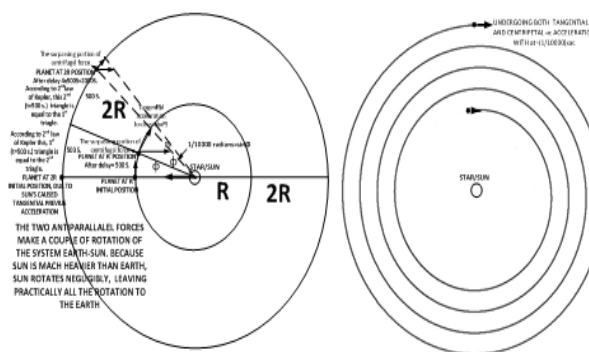
Picture a: picture b:

Fig24. *Not in proper scale. The Earth, (picture a), moving 3x105m/s=c/104 from the initial position after 500+500 seconds, receives the assumed by Einstein delayed attraction from the Sun. This delay makes the Earth, (picture a, b), to accelerate forward from its initially mentioned velocity, increasing it. The Sun's initial attraction = centripetal41 force=MExυE2/R for the initial radius R now is not big enough for the increasedυE. The centrifugal force surpasses the attractive centripeta force and Earth, (picture b), spirals farther out, violating its conserved energy[27] and conserved angular[27] momentum, and contradicting the experimental fact: far outer planets posse smaller and smaller orbital velocities, and according to the universal law of gravity. These paradoxes disappear when accepting the gravity propagation is infinite, without the orbital accelerations of the wrong hypothesis of Einstein and S.R.*
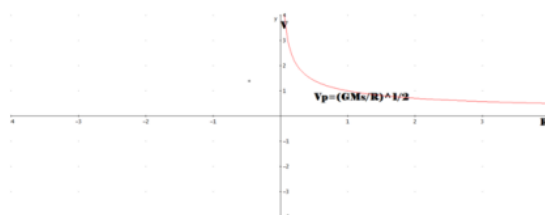
Fig25. *According to astronomical observations and scientific research, the plot of velocity Vp of the planet concerning its distance from the Sun.*
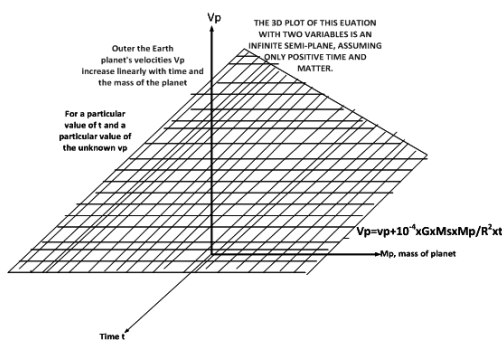

Fig26. *Einstein's undetermined prediction.*

According to Einstein, the velocity of a planet cannot be determined, because it depends simultaneously on two unknown variables. It should wrongly increase with time and depend on the mass of the planet plus an initial, unknown constant velocity vp. Obviously, this is contrary to what has been determined and known in astronomical observations and scientific research. Also, according to Einstein, the velocity of a planet should tend to zero + the constant vp, if the planet's mass tends to zero. Thisimplies that a molecule or an atom or an electron with a relatively very small mass, near or part of a large planet, would have a very small velocity + vp ≈ the same constant velocity vp, no matter the actual velocity of the planet. These assumptionsmakethe physics (see also above ✱✱Vp), absolutely crazy, not science!

✱ Eccentricities[28] of the orbit of planets: Hermes 0,2056, Aphrodite 0,0067733, Earth 0,0167, Mars 0,09341, Jupiter 0,0483, Kronos 0,051, Neptune 0,0541, Uranus 0,0471, Poseidon 0,008585, Pluton 0,24880766.

✱td =The light time delay from the sun, with the highest, assumed by S.R. of Einstein, speed in the Universe, that of the speed c of light, takes an average of **8 minutes and 20 seconds=500 seconds=td** to travel from the Sun to the Earth[24].

✱ The moon is just under 250,000 miles from Earth, so light from the Moon's surface has to travel more than one second (about 1.3 seconds) to reach us.

✱✱ Earth[34]mass $=m_E=5.9723 \times 10^{24}$ Kg. Very well-known from local parameters.
✱✱Sun's mass=$M_\odot=1.98855 \times 10^{30}$kg. Very well known by the mass and radius of the Earth and the distance of the Earth from the Sun.

✱✱ r, Semi-major axis (10^6 km) 149.60×10^9 meters, (AU) 1.00000011, Earth's aphelion and perihelion, 149597870700 meters about 150 million Km=1.5×10^{11}m.
✱✱The orbit speed v_E of the Earth around the Sunis30 Km/s=30000m/s=$v_E \approx c/10^4$.

✱✱ The pull Fs of the Sun on the Earth is only 0.0006 of the strength of the earth's gravity on the surface of the earth or Fs=5.9723×10^{24} Kgx0.0006x9.81m/s^2 =5.9723×10^{24} Kg x5.9×10^{-3}m/s^2= 35.24×10^{21}N= F_S.

✱✱ R=149,600,000 Km=1.5×10^{11}m =1 A.U.

✱✱ a_C,the centripetal acceleration of the Earth at the distance Earth orbits the Sun is:v^2/R=9×10^8m^2/s^2/$1,5 \times 10^{11}$m =6×10^{-3}m/s^2= a_C

✱✱ a_T, the tangential acceleration on the initial orbit$=10^{-4}6x10^{-3}m/s^2=6x10^{-7}m/s^2$.

✱✱ The attraction Fs (weight) of the Earth by the Sun is: $F_1 = -F_2 =m_E a = 5.9723x10^{24}$ Kgr x$5.9x10^{-3}$ m/s$^2= 5.9x10^{21}N=F_S$.

✱✱ Gravitational constant, $G=6.674\times10^{-11}$ N·m^2/Kg^2.

✱✱ Force Fa$_T$, that tangential accelerates $(=a_T)$ the Earth, due to gravity's retardation from the Sun: Fa$_T$ =sinφxFs$=10^{-4}$ Fs, Fs attraction of Earth by the Sun.

✱✱"$a_R=a_C$"radialacceleration of the Earth on its initial orbit around the Sun$=F_s/m_E=10^4$x$a_T=10^4$x$6x10^{-7}m/s^2= 6x10^{-3}=$"$a_R =a_{C"}$.

✱✱ "a_T" tangential acceleration of the Earth on its initial orbit around the Sun: a_T=Fa$_T$/$m_{E.}$=sinφxFs/m_E $=10^{-7}m/s^2=a_T$, where the m_E is themass of Earth.

✱✱Vp of planets, Fs= a_CMp, Ma$GM_PMs/R^2=a_C$Mp= Vp^2/RxMp, $GM_PMs/R^2= V^2$/R̶x̶M̶p̶, GMs/R= Vp^2, Vp=$(GMs/R)^{1/2}$ Therefore velocity Vp of planetsdecreases in Newtonian dynamics as observed ~ $1/Rp^{1/2}$.

On the contrary and very wrongly, according to Einstein, a planet undergoes both a tangential a_T and a centripetal a_C acceleration with a_T=(1/10000)xa_C, a_C =V^2/R, a_T =10^{-4}x V^2/R= 10^{-4}xFsatR= 10^{-4}xGxMsxMp/R^2 = a_T, Vp=vp+ a_T xt, Vp=vp+$a_T$xt=vp+10^{-4}xGxMsxMp/R^2xt=Vp. The velocity Vp of a planet depends linearly on the mass of the planet and time t plus an initial, unknown constant velocity vp, according to Einstein and thus, it is undetermined.!!

✱✱ φR= arc length =$υ_E$xtxd=$3x10^4$ m/sx550s=$3x10^4$x500m=$1,5x10^7$m.

✱✱ R=the average distance of Earth from the Sun: 300.0000 Km/sec x(8x60 + 20)secs=300.000Km/sec x 500 sec= =1.500.000.000.000m=$1,5x10^{11}$m=1AU=R.

✱✱ $a_{T1}=a_T=5.9x10^{-7}m/s^2$, a_{T2}=Fs$_2$/m_E, Fs$_2$=Gm$_Exm_S$/$(2R)^2$=Fs/4=10^{21}Kgx$5.9m/s^2$/4=10^{21}Kgx$5.9x10^{-3}m/4s^2$=$1.475x10^{21}$xKgxm/s^2 1.475Kgxm/s^{2}x10^{21}. Therefore,

✱✱ a_{T2}=v_2^2/2R=Fs$_2$/m_E=GM$_S$/4$R_{INITIAL}^2$==F$_S$/4m_E=10^{24} Kg x$5.9x10^{-3}$(m/s^2) /(4x$5.9723x10^{24}$ Kg)= 10^{21-24}/4= $0.25x10^{-3}m/s^2$=a_{T2}. $35.24x10^{21}N$= F$_S$.F$_S$/m_E=$35.24x10^{21}$N/ $5.9723x10^{24}$ Kg =$9.87x10^{-4}m/s^2$= $a_{T2.}$

✱✱ Average tangential acceleration=$(a_{T1} + a_{T2})$/2= $a_{E1.5}$=($5.9x10^{-7}m/s^2$+$9.87x10^{-4}m/s^2$)/2=$\underline{4}.93795x10^{-4}m/s^2$=$(a_{T1} + a_{T2})$/2= $a_{E1.5}$

✱✱ Δφ/Δt rate of advancement 1) due to the Earth's delayed notification to the Sun about its present position + due to the Sun's delayed answer of attraction to the Earth = $2x1,5x10^7$m/$1,5x10^{11}$m =$2x10^{-4}$ radians/(500+500)s =$2x10^{-7}$radians/s ≠angular velocity: ω= ΔΦ/Δt = 2π/(365x24x60x60sec) =0.19913749x10^{-6}/sec=ω.

✱✱ Circumference S of cyclic orbit with double radius2R, (R the initial Earth's orbit radius.), S = 2πx2R.

✱✱ The minimum time t needed for the Earth to go around this circumference with tangential average acceleration $a_{E1.5}$=($a_{T1} + a_{T2}$)/2=($5.9x10^{-7}m/s^2$+$0.25x10^{-3}m/s^2$)/2 = $4.93795x10^{-4}m/s^2$ = $a_{E1.5}$=($a_{T1} + a_{T2}$)/2. 1/2$m̶_E υ_{E2}^2$ = GM$_S m̶_E$/2R, $υ_{E2}$=($2̶$GMs/$2̶$R)$^{1/2}$=21032.9763m/s=$υ_{E2}$. Similarly for tangential average velocity $υ_{E1.5}$= ($υ_{E1}$+$υ_{E2}$)/2=see below=25389.0483 m/s.= $υ_{E1.5}$, $a_{E1.5}$= ($a_{T1} + a_{T2}$)/2=($5.9x10^{-7}m/s^2$+$0.25x10^{-3}m/s^2$)/2=$4.93795x10^{-4}m/s^2$= $a_{E1.5}$, S=1/2at^2 + $υ_E$t-2x3.14x2R=0, (1/2) x4.93795m/s^{2}x10^{-4}xt^2 + $4.70311647x10^{16}$m/s xt - 2x3.14x2x149,600,000,000m=0, All the roots are given by solving this equation. However, this is a non-practical equation. (1/2) x0.493795AU/s^{2}xt^2 + $3.143x10^7$AU/s xt - 2x3.14x2x1AU=0, Non-practical equation too, it cannot be solved accurately by

an ordinary home computer, due to the huge difference of coefficients of a and b. New equation is required to replace it,such as:$\upsilon_{E2}= \upsilon_{E1}+a_Txt$,

t= $(\upsilon_{E2}- \upsilon_{E1})/a_T$=see above andbelow =8712.144(m/s)/4.93795x10^{-4}m/s^2 =1764,324x10^{4}s=0.55946347 $\approx$ 0.5 years=6 months.

$**$ (G=6.674×10−11 N· m2/Kg2), FE=FS, MExa=GxMSxME/RE2, MExVE2/RE=GxMSxME/RE2, VE2=GxMS/RE, VE=(GxMS/RE)1/2 =29745.1203m/s accurately approximating VE at R, similarly VE2=21032.9763m/s at 2R

*υ[E1,2] =29745.1203m/s-21032.9763m/s=8712.144m/sυ[E1$^{,\infty}$]=[21/2x[$\frac{GMs}{Re}$ - $\frac{GMs}{\infty}$]½=

21/2x[$\frac{GMs}{Re}$ - 0]½= 21/2x[$\frac{GMs}{Re}$]½ =1.33024222x1017m/s. = * υE1$^{,\infty}$> 30x103m/s = velocity of the present orbit of the Earth. (Using for the υE1$^{,\infty}$, thebasic V1.01 calculations program). υ[E1$^{,\infty}$] is the escape velocity of the Earth, Ms/RP stands for the mass of the Sun/the distance ofthe planet (Earth) fromthe star (Sun).

$**$ FS20R=GMsME/(202R2)/2= 8.80687482x1019N =FS20R.a20R=F20R/ME=8.80687482x1019N/ME=0.14746203x10-4m/s2 centripetal acceleration at 20R

* υE1.5 velocity at orbit with radius= 1.5R=(29745.1203m/s+21032.9763m/s)/2=25389.0483 m/s. 2.9510839m/s2=a20R, t=(vE - v20R)/a20R, v220R/20R=0.2951083910-2m/s2, v220R=20xRx0.29510839x10-2m2/s2,v220R/20R=a20R=F20R/ME, F20R=GMSME/(20R)2→ a20R= GMSME/((20R)2xME)=GMS/(20R)2, v220R/20R=GMS/(20R)2, v20R=(GxMS/(20xR))1/2= 6651.21109m/s= v20R.

It is an astronomical fact: Among (agreeing with Newton) of all velocities of outer planets are less than the initial velocity v_E of Earth, which it is a maximum: On the contrary this fact is reversed according to Einstein's propagation delay, v_E is a minimum and all subsequent velocities of outer planets increase to: v_E + average tangential acceleration a$_{20RT=10}$$^{-4}xa_{20R}$ times time t: v_E + $_{10}$$^{-4}$x a$_{20R}$xt= v$_{20R}$ → t= (v$_{20R}$ - v$_E$)/($_{10}$$^{-4}$x a$_{20R}$)= (v$_{20R}$ - v$_E$)/ 0.14746203x10^{-8}m/s^2 =1.58337634x10^9=t seconds at 40R 50.2085343=t in years $\approx$ 50 years.

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