Instant Gravity and Real Time Astronomy in a Real Time Universe

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This paper and concomitant presentation comprise insights into reality of real time astronomy as well as local instant gravity in a real time universe as a subset of the infinitude of nested worlds. Upfront are a few assumptions and definitions of elusive terms such as light, gravity, mass, time and real time astronomy to name a few and their nexus to URL (Universal Relationship Law) which is comparable in scope to Newton's UGL (Universal Gravitation Law). Reality of light and a theory of locally created gravity are then explored in greater detail and put in the perspective of real time astronomy. A prima facie case is made for motion of our mencro scale world as the cause and gravity as the result that is derived from common everyday human experience, to which we can all easily relate. Gravity does not make the world go around but world going around makes gravity go. The presentation is founded on the unity of truth and one reality. Real Time astronomy is not a look back at Big Bang. Relationship between real time astronomy and quantum physics is not a coincidence. Universe is not geocentric, heliocentric or galactocentric, but is anthropic, anthropocentric, omnicentric and even panthroptimum. A helpful tool in my quest for real time astronomy is purging of erroneous knowledge especially if it originated from such icons of science as Aristotle, Galileo, Newton, Darwin and Einstein. A prominent role is played by two minor corrections to Newton's first law of motion as well as two minor corrections to Einstein's special relativity theory and how engineers by trial and error made GPS (Global Positioning System) work, in spite of the wrong science.

1. Introduction

The concept of real time astronomy is counter intuitive and contra human experience. The concept of Instant gravity is even more puzzling for human brain. This makes the title of this presentation suspect even appear as crackpot science. Nonetheless it is my objective to convince you that there is but one reality in here and out there and real time universe, real time astronomy and instant gravity are integral part of it. The concept of real time in cosmology is similar to that we are accustomed to in computer science, where the response is real time if the delay is not excessive vis-à-vis the patience, needs and circumstances of the user. The instant gravity on the other hand is a foreign concept to human brain and does not have the same meaning as in instant gratification. These concepts are particularly hard in the back drop of human experience and big bang singularity, instead of the more realistic infinitude of singularities.

2. Assumptions

I am not making any assumptions which are not part of my worldview. Besides why would I want to make an ASS out of U and ME? Therefore my starting point is that neither you nor I created this universe any more than you created me or I created you. The foundation of everything in my life is that a Panthroptimum God created this orderly universe, which follows laws and has common attributes applicable to everything, everybody and everywhere. For example everything is virtual particle(s) with wide range of size, duration and density, is finite, has purpose, happens in real time has infinite variety and is temporary & temporal. Everybody has freedom to choose between right and wrong and laws of Physics are the same everywhere in every frame of reference in the infinitude of nested worlds like the Russian dolls. Everything is relative in our physical universe but

absolute in virtual universe of God. The danger of relativity is that anything good can appear and become bad when compared to something better and conversely anything bad can look and feel good when compared to something worse.

3. Definitions

- 1. Exa = 10^{18} (Reciprocal of Atto 10^{-18})
- 2. EXTROPY Non-oxymoronic antonym of entropy.
- 3. GRAVITY The equal and opposite reaction to acceleration.
- 4. INFINITESIMAL As close to zero as humanly possible imaginable or comprehendible. (Microzero, relative zero)
- 5. INFINITUDE As close to infinity as humanly possible, imaginable or comprehendible. (Microinifnity, relative infinity)
- 6. LIGHT Part of electromagnetic spectrum in mencroscale perceptible to human eye & brain.
- 7. MASS The unit-less sum of atomic weights of all atoms (number of protons & neutrons = 10^{100} approx.)
- 8. MENCROSCALE Human range of perception, processing and presentation in our world.
- 9. OMNICENTRIC In a universe of infinite radius every point is the center of the universe
- 10. PANTHROPTIMUM (Contraction of PAN + ANTHROPic + OPTIMUM)
- 11. SPACE 3D infinity of everything non-physical.
- 12. Time Distance traversed divided by velocity of celestial body.
- 13. URL Universal Relationship Law.
- 14. V_n Normal Earth Velocity in absolute space.
- 15. Yotta = 10²⁴ (Reciprocal of Yocto 10⁻²⁴)
- 16. Zetta = 10^{21} (Reciprocal of Zepto 10^{-21})

4. Instantaneous Gravity

Gravity is the equal and opposite reaction to acceleration. It is the application of Newton's third law to acceleration. More precisely gravity is any and all uncompensated orbital (Hybrid straight line Linear & Angular/rotational) acceleration, however caused in three orthogonal-motion frames (i) The Earth orbit around the Sun in a first plane; (ii) The Sun orbit around the Black Hole of Milky Way in a second plane perpendicular to the first plane of earth orbit around the sun; and (iii) The Milky Way orbit around the black hole of the Virgo cluster of galaxies in a third plane perpendicular to first and second perpendicular planes analogous to three (or more) planes (or axes) of yaw, pitch and roll of an aircraft.

Gravity is local, instantaneous, in real time and most certainly not some spooky action at a distance. You have already created and experienced such an acceleration when accelerating or breaking a car. Recalling the definition above gravity is the equal and opposite reaction to such an acceleration or deceleration. Same is true of astronauts taking off vertically in a rocket, who feel excruciating gravity downward. Unfortunately that is acceleration along one axis and in one plane. Not enough to provide uniform gravity so that our brothers and sisters down under in Australia do not fall off. Let us relate this to some everyday experiences.

Imagine you are hurling a stone at the end of a string above your head in a horizontal plane (until it begins to have look and feel of the tilt-able disk of a rotorcraft) and there are two ants one facing you and the other on the far side of the stone. It is not hard to visualize that the ant on the far side has to struggle to stay on the stone due to far side centrifugal force or anti-gravity while the ant facing you has little trouble clinging to the stone because of the near side centrifugal force or gravity towards the center of the stone created by your accelerating stone. Now imagine the Nature is doing something similar at a much larger scale, where the stone is replaced by the earth and the string is invisible and the sun is the anchor that acts like an invisible hand of nature. The impetus for the motion is provided by the virtual particles which rotate the earth not only on its own 23 degree tilted axis but also orbitally around the Sun as the anchor as shown in the Figure -1 from the archives of Our Pal LLC.

Gravitational Graphic

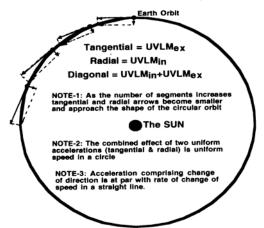


Fig. 1. Contact Force of Local and Physical Virtual Particles (Obviously not to scale nor proper orientation, inclination or direction)

Just as the sun acts as the anchor for the earth, the black hole of the Milky Way galaxy acts as the anchor for the solar system and Black Hole of the Virgo cluster of galaxies acts as the anchor for the elliptical orbit of the Milky Way galaxy around the Virgo cluster. It can also be readily verified that these and other motions of local and super clusters of galaxies are in different planes arranged to provide uniform acceleration throughout the earth. This also means all these billions and billions (Don't forget to pucker up your lips like late Carl Sagan as you read this) of stars are not created just for the amusement of the astronomers, astrophysicists, cosmologists, mathematicians and star gazers everywhere but are actually needed to create uniform gravity throughout the planet earth. How many virtual particles does it take to move earth or galaxy? Lots. Coordinated yotto (exa or zetta) virtual particles of vocto (atto or zepto) duration votto (Exa or Zetta) times per second at each infinitesimal point of the physical matter from within and without every atom. So in summary what makes gravity instantaneous and local is the acceleration of the celestial bodies by integrating the acceleration along at least three axes (or planes) as mentioned in the definition above.

The following visualization exercise may help. Imagine a spiral in the shape of a Christmas tree, wherein an aircraft is spiraling up or down. One can see that the pilot is integrating two motions; one 'up or down' along the vertical axis and another 'in or out' as the spiral narrows and widens. These two axes and concomitant planes are perpendicular to each other. Now imagine the Superman is accelerating the entire set up (with aircraft, pilot and all) forward along another horizontal axis. You will have to think a bit to see how the pilot would integrate three different accelerations to experience uniform gravity.

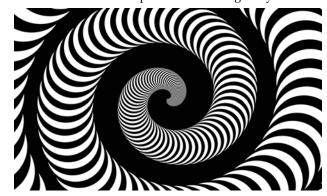


Fig. 2. Spiral motion for visualizing local 3D uniform gravity akin to yaw, pitch and roll of an aircraft?

The spiral graphic of Figure -2 downloaded with an attitude of gratitude for google from a public domain website (sites.google.com/site/translucentart/dotspiral2.jpg) may also help in visualizing how acceleration in three orthogonal axes or planes is integrated to provide uniform reaction to this acceleration as gravity in the opposite direction, a little bit like a centrifuge with a lower able floor often found in amusement parks where kids cling to the inside wall when the speed of the centrifuge exceeds a threshold and the floor is lowered but the kids remain stuck to the wall and seem to enjoy the surprising novel sensation.

Any theory of gravity, if based on motion at all, must also explain why don't our brothers and sisters (Maits) down under in Australia fall off the planet when we all have our respective feet planted firmly on the ground. In my nimble and humble mind it is a cop out to rationalize and suggest "because UGL (Newton's Universal Gravitation Law) treats planet earth as a point particle". Finally remember motion of the universe is the cause of gravity which is derived from common everyday human experience, to which we can all easily relate. Gravity does not make the world go around but world going around makes gravity go.

5. Let's Not Make Waves

By this I mean let's not make gravitational waves. Gravitational waves do not and cannot exist per se but LISA will detect some type of interaction of virtual via virtual particles and/or waves with the physical gold platinum cubes and laser beams and we/they will shape it into something at detectors, oscilloscopes and other transducers etc. Every viable and tenable theory of gravity must harmonize with our everyday experience of walking, riding a bike, driving a car, launching a satellite and once in a blue moon sending a man to the moon.

6. Physical and Virtual Light

Light is the Electromagnetic information collection and imparting system via virtual particles "Photons" through a unitary whole universal medium. It is part of electromagnetic spectrum in mencroscale perceptible to human eye & brain. There are two types of light, physical and virtual. Physical light is the antonym of darkness - Subject to aberration, absorption, deflection, diffraction, dispersion, reflection, refraction and scattering etc., but Virtual light is not subject to any of these enumerated effects of aberration, absorption, deflection, diffraction, dispersion, reflection, refraction and scattering etc. Neither is visible. The only reason we see physical light is because its interaction with the physical makes this possible. The virtual light on the other hand is not perceptible even when it interacts or makes the physical light possible. The closest approximate synonym of virtual light is enlightenment, an "Aha" often experienced by creative people everywhere. Just as behind every successful man is a woman, behind every physical light is a unitary whole virtual light. Virtual light is also the key to finding the elusive TOE (Theory of Everything).

There is no such thing as traveling non-physical waves. E-M waves (including light waves) without a medium are fiction. In vacuum nothing travels at all. Neither sound nor light. Sound because it requires a physical medium to travel. Light because as a virtual entity it does not need to travel after all it is the virtual light that enables physical light. Light and sound speeds are oppositely related to density. Light speed decreases with density while sound speed increases with increasing density. Why the density affects sound and light oppositely is rooted in their physical and virtual nature respectively and can be better understood by a race between a jogger and a swimmer in a miniature land of ten thousand (actually 15,000/+ as in Minnesota) lakes where the jogger finds the increased number of lakes (density) as obstacle and slows down, while the Swimmer finds the lakes, conducive and speeds up.

Nothing travels at speed of light, not even light. No such thing as waves in non-physical medium. Light is mainly an electromagnetic information collection and imparting means via virtual particles "Photons" through a unitary whole universal medium. E-M waves (including light waves) without a medium are manmade concoction. In vacuum light does not travel at all as unitary whole comprises zero density and entails infinite speed. Either the speed approaches 'c' or there is no travel at all.

The light appears to travel as waves in low density and interacts with the physical as photons. When the density decreases beyond a certain threshold, the appearance of waves is replaced completely by individual virtual particle (photon) interaction and when the density increases eventually even the photons are unable to get through steel or lead. It is the interaction of the virtual with the physical via virtual particles that creates the illusion of quantum physics. The only thing uncertain in the universe is the Heisenberg's uncertainty principle itself.

7. URL: Universal Relationship Law

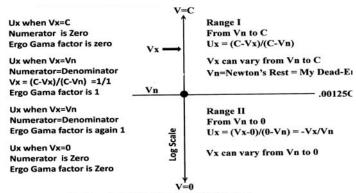
In this context URL does not mean. Universal Resource Locator as my URL is still the same OurPal.com but here it stands for Universal Relationships Law which is comparable in scope to Newton's UGL (Universal Gravitation Law). Figure-3 is an overview of the Universal Relationship(s) Law.

Velocity < Vn
Mass/Pendulum-Length
Interval between Ticks
Time Dilation
Volume, Size, Length
Entropy (RateXTime)
Resistance
Heat/Temperature
Momentum
Cross Column-Inverse

Except Cross Column Physical Energy & Moments approach Zero and Virtual Energy to Infinity.

Fig. 3. Universal Relationships Law

Many laws can be formulated from this simply by selecting any two variables and inserting 'directly proportional' if from the same column or 'inversely proportional' if from different columns between the two parameters to create a new law. Here the left column represents Range I for velocities between Vn (.00125c) and 'c'. Similarly Range II is for velocities between 0 and Vn (.00125c). The following graphic further delineates URL in these two ranges including the simplified formulas for gamma factor.



C = Speed of Light; V = Absolute Velocity Ux = Value of Unknown Parameter at Velocity X (0-Vn) Vn = Normal, Natural, Nominal velocity on earth @Rest

Fig. 4. Simplified Linear Gamma Factor

More on Definitions URL and Real Time Astronomy is available on the World Science Database created and maintained by Natural Philosophy Alliance. [1] Thank you, Greg Volk and David de Hilster. The author's website [2] also has useful additional information, which due to space and time limitations I have not been able to touch upon and delineate the topics further, which I could treat here only superficially at the highest level of abstraction, but the devil is in the detail. Additional graphics may also aid in grasping the counterintuitive and often contra experience concepts. The following Figure 5 further delineates the URL.

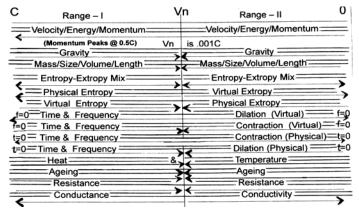


Fig. 4. In Twin Paradox Analysis, remember virtual don't age & dead don't age. All properties (mass, motion, gravity, acceleration, entropy and extropy mix) are ideal at Vn for the physical.

8. What about Time?

I define time as the ratio of distance traversed divided by speed of celestial body in motion. Accordingly time dilation or contraction is also function of the absolute motion of the universe through absolute space. All motion must be taken into account including rotation of the earth, its orbit around the sun and motion of solar system and hence our earth also from Constellation Aquarius to Leo at 370 km/sec. Like the three legged stool, moments (of time), mass and motion are interdependent and inextricably intertwined. They are born together, grow proportionately together and will end together at speed approaching 0 or 'c' each having the same effect. The trio starts from infinite time (or infinitesimal frequency) and infinitesimal mass and infinitesimal motion. Time is also reciprocal of frequency. Time is also time period of wave or wavelength. Accordingly in range I for V_n (speeds between .00125C and C) as motion and mass approach zero, time and frequency tend to infinity or end of everything physical and end of time. Contrary to Einstein's SRT in our range I, time contraction takes place instead of time dilation. [3] In range II (speeds between .00125C and 0) the opposite takes place. As mass becomes zero, frequency becomes zero or time becomes infinite to result in eternity (at par with infinite frequency, zero time or end of time and end of physical variety eternity).

9. Real Time Astronomy

Perhaps the following contrived tongue in cheek dialogue between a skeptic and a scientist will help you appreciate the concept & definition of real time and lag time.

Skeptic: What time is it? **Scientist**: You mean NOW?

Skeptic: No, I mean when the Big Bang light reaches us.

Scientist: Why would you want to know that? You weren't even born?

Skeptic: But since presumably you were born and I look about half your age, so I figured I can guesstimate how long will I live so I can

plan my life accordingly. **Scientist:** About 14 billion years ago.

Skeptic: So I have about 7 billion more years to live on this planet. Thank you Mr. Scientist. Thank you very much,... very much indeed.

This dialogue delineates the folly of time lag astronomy. The truth is we see stars as they are and now and not as they were. I am not sure about you but when I gaze at the stars with wonder amazement and reverence I see them as they are and not as they were millions or billions of years ago. Universe operates, communicates and interacts with us in real time. The entire virtual universe is a unitary whole. Reality of real time universe including the real time astronomy is founded on the unity of truth and one reality. Similarly sun spots on the sun are observed in Real Time and not eight minutes later.

If the sun were to suddenly disappear the day will immediately change to night on the entire planet, and the feeling of gravity will vanish instantly and earth will fly off on a tangent until it orbits some other appropriate celestial body in its straight line acceleration because unlike light which slows down due to the density of atmosphere, gravity is locally generated and does not entail even the delay of a nanosecond. Real Time Astronomy is not, cannot and will never become a look back at Big Bang. Relationship between real time astronomy and quantum physics is not a coincidence. Universe is not geocentric, heliocentric or galactocentric, but is anthropic, anthroptimum, omnicentric and anthropocentric as well as panthroptimum.

10. Conclusion

There is but ONE reality, which supposedly science and religion and all other philosophies are pursuing. The reality of science and religion should not, must not, cannot and will not be different. It is absurd for either camp to think that they are completely right and the others are completely wrong. The real battle is between good and evil and not between science and religion, evolution and creation, male and female, us and them, patriotism and humanity as good and evil people can be found in varying proportions anywhere and everywhere.

Many of my friends in the main stream science criticize the dissidents for being in denial of physical reality, but it does not occur to them, that it may apply equally well to them as well. They also criticize us (rising stars) for not publishing in peer reviewed journals, knowing very well that they are the sole gate-keepers and therefore a self-fulfilling prophecy. One managing editor even told me that, he would not waste the valuable time of his technical editors by sending my manuscript for review simply because it disagrees with the proven science of icons like Aristotle, Galileo, Newton, Darwin and Einstein. So much for the freedom of inquiry. If anyone challenges them their careers are sabotaged and even slaughtered in some cases. [4]

References

- World Science Database Website, Natural Philosophy Alliance, www.WorldSci.org
- [2] P. Asija, "Author's Website" www.OurPal.com
- [3] P. Asija, "SRT v/s SRT" Proceedings of the NPA, v6, n1, pp. 17-19 (2009).
- [4] J. Bergman, Slaughter of the Dissidents (Leafcutter Press, 2008).