

# The Relativity of Time

14<sup>th</sup> April 2019.

Stephen H. Jarvis.

<http://orcid.org/0000-0003-3869-7694> (ORCID)

EQUUS AEROSPACE PTY LTD

Web: [www.equusspace.com](http://www.equusspace.com)

email: [shj@equusspace.com](mailto:shj@equusspace.com)

**Abstract:** In this development upon five leading papers [1-5], the idea of the “relativity of time” shall be fully addressed, providing the rationale to how the overall manifold of time-space would perform regarding entropy and enthalpy, including in this description how consciousness would emerge (as proposed in paper 3 [3]) from time-space. First, the idea of “subject” and “object” shall be presented regarding the time-relativity description, while explaining the role of consciousness in this process (given paper 3’s proposal of consciousness emerging from chaos, the aim here arriving at fundamental features of consciousness that would already be apparent to our known traits of consciousness). Additionally, more texture shall be provided to the explanation of the flow of time, detailing how time being relative in space per the golden ratio has two features, namely “cause” and “effect”. Through examining cause and effect regarding time, an “end-zone” region of time-space shall be examined, the mechanics there as gravity/mass breaks down, and the idea of stellar quantum-entanglement, giving rise to a seemingly endless “image” of the stars. Following this, the idea of consciousness will be brought in to this new overall plane of time-space via which a model of “human” consciousness will be forwarded. Through this discussion, ideas central to the wormholes, red-shift effect, carbon dating, gamma radiation, white holes, and the dimensions of the perceived galaxy, will be forwarded, supported with accepted experimental findings. Finally, three new mechanisms of proof shall be proposed, proof not yet proposed by contemporary science.

**Keywords:** relativity; time; cause; effect; subject; object; golden ratio; entropy; enthalpy; cosmos; consciousness; time; energy; quantum entanglement; background microwave radiation; heat; temperature; fine structure constant, gauge invariance; fractal; Avogadro; Oort cloud disc; stars, Sun; planets; Kuiper belt; Milky Way; radio-carbon dating; Hubble telescope; James Webb telescope; gamma radiation; white hole; wormhole

---

## 1. INTRODUCTION

This paper, a development upon 5 previous papers [1-5] shall finally address the idea of the “relativity” of time, presenting a case for the concept of “cause” and “effect” per a model of consciousness detailing “subject” and “object” directly derived from the golden ratio algorithm for time [1-5]. Additionally, in taking up from paper 5 [5], the idea of entropy and enthalpy will be brought in with a clearer and more concise description of the algorithm for time per the golden ratio. Then, this new insight into the flow of time as both a “objective reference” and “subjective reference” manifold will be brought in with the overall construction of a steady-state cosmos as presented in paper 5 [5]. From there the idea of consciousness as the “objective reference” in a steady state model of the cosmos will be detailed, following which the “subjective reference” of the cosmos will be detailed likewise. The idea of a “human” reference will then be proposed, and how that can be possible, in the context of a solar objective and cosmic subjective consciousness. This idea of the “human” reference will then be briefly compared with historical and contemporary ideas/models of consciousness, highlighting how very accurate the proposed golden ratio as time model of consciousness is. The previous paper’s conjecture [5] that the stars could in fact be an illusion, an endless reflection of the light from the Sun through what appears to be an endless spatial vacuum of planetary debris, will then be married up with the idea of subjective consciousness representing the very same manifold of what would be such an axiom of cosmic-placed consciousness, not necessarily proving it is more than likely the stars are an illusion, but rather astral phenomena would provide to us a paralleling feature to our own “subjective” consciousness and associated abilities.

Although this paper may not read as pure science given the inclusion of the idea of “consciousness”, this paper “relies” on pure science, as all the preceding papers have [1-5]. And in being consistent with the preceding papers [1-5], this paper is still held in the subject of string theory and quantum gravity yet is now moving more towards ideas of relativity and cosmology, as the aim of those papers [1-5] has been to explain a unified theory for time and space and thus a unification of quantum theory and gravity using a new algorithm for time. Despite the preceding papers [1-5] deriving valid equations for known experimental values and vice-versa, it remains that the purpose of the preceding papers [1-5] has been to integrate the idea of the golden ratio as an algorithm of time into a new spatially defined matrix. Subsequently, the entire “descriptive” landscape of physics theory has unavoidably been altered, yet the factual experimental results and equations have remained the same (minus those equations and experimental results deemed unnecessary, such as the Planck scale of determination). It needs to be noted than “only” the description of the explanations for those experimental and research results have changed, such as the red-shift effect, the cosmic microwave background (CMB) radiation, the uncertainty principal, and many more, yet still putting all those descriptions together in a consistent way, in a way that was not contradictory to all other descriptions used in those papers [1-5]. Simply, all scientific data is relied on, yet the theory of putting that data together has changed as per using the golden ratio algorithm for time, leading to a new set of logical constructs and conclusions, leads and theories, to how reliable data can be explained. The idea of consciousness is an offspring idea from such new leads and needs to be noted.

## 2. THE RELATIVITY OF TIME

A key feature that hasn’t been expanded on sufficiently in the previous papers [1-5] is the idea of the “relativity” of time, that time as a concept of flowing between two different spatial references represents a “relativity” all its own. The idea of time extending from past to future in a spherical front from a point source has been detailed, yet how different references of space consider the idea of time relative to each other in a universal 0-scalar spatial matrix, and even then, how that concept intermingles with the “time” related to each reference of space, needs

detailing, the latter being the more fundamental feature of time to a universal 0-scalar spatial manifold. In explaining this relativity, we shall be able to confirm the idea of the two different flows of time, namely “before to after” and “after to before”, and finally explain how the idea of “consciousness” fits perfectly in that presentation of the idea of the relativity of time. The first method used to describe time was in paper 1 ([1]: p6, table 1.)

*Let's continue to suggest this process of time is the quality/phenomena itself of electromagnetism. Consider the flow of time mathematically in table 1.:*

Table 1.

STEP 1:	$t_N (1)$	>	$t_A (-1/1)$
STEP 2:	$t_B (F^2)$	>	$t_N (1^2)$
STEP 3: (see step 1, “squared”)			

< note here we are keeping  $t_B$  out of this equation owing to its imaginary status and limiting feature >

*First, we have the proposed process of time in fig. 9., now let us propose annexing here the idea of magnetism (B) as representing  $t_A$ , with  $t_N$  representing electricity (E). The concept here of the flow of time is central to  $t_N$  then  $t_A$  (as  $t_B$ ) then  $t_N$  etc. .... Thus, when  $t_A$  is “1”, at that same step of time  $t_A$  is “0”. When  $t_A$  is -1,  $t_N$  is “0”, and so on and so forth. This would suggest that  $t_N$  could represent a sinusoidal wave as follows (flow of time along x axis) (fig 1.10.).*

The explanation sufficed for a description for the relationship between  $t_B$  and  $t_A$ . Now more scope shall be added in the following manner, including “each” step of the golden ratio equation  $t_B + t_N = t_A$ . It would be logical to state that time “flows” in the following manner, if time were running on a track defining a reference of “before to after” via “now”:

Table 1

$\langle B \rangle t_B$	>	$\langle N \rangle t_N$	>	$\langle A \rangle t_A$
-------------------------	---	-------------------------	---	-------------------------

Now, if we can imagine that  $t_B$  becomes  $t_N$ , and  $t_N$  becomes  $t_A$  for the same spatial reference in time, the following would hold true:

Table 2

$\langle B \rangle t_B$	>	$\langle N \rangle t_N$	>	$\langle A \rangle t_A$
		↓↓↓		↓↓↓
		$\langle B \rangle t_B$	>	$\langle N \rangle t_N$ > $\langle A \rangle t_A$

Now, if we continue this, we have the following:

Table 3

$\langle B \rangle t_B$	>	$\langle N \rangle t_N$	>	$\langle A \rangle t_A$
		↓↓↓		↓↓↓
		$\langle B \rangle t_B$	>	$\langle N \rangle t_N$ > $\langle A \rangle t_A$
				↓↓↓
		$\langle B \rangle t_B$	>	$\langle N \rangle t_N$ > $\langle A \rangle t_A$

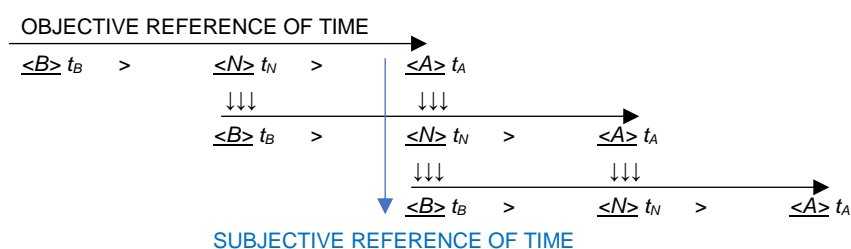
So, the following would be granted for an “objective” reference of time:

Table 4

OBJECTIVE REFERENCE OF TIME				
$\langle B \rangle t_B$	>	$\langle N \rangle t_N$	>	$\langle A \rangle t_A$
		↓↓↓		↓↓↓
		$\langle B \rangle t_B$	>	$\langle N \rangle t_N$ > $\langle A \rangle t_A$
				↓↓↓
		$\langle B \rangle t_B$	>	$\langle N \rangle t_N$ > $\langle A \rangle t_A$

The “subjective” reference would be different though. Consider a “subjective reference” as a reference of space in time that represents the “emergent” spatial reference of  $t_A$ . Thus, the “subjective reference” of the objectification of time (“before to after”) is in fact a process as follows:

Table 5



We are faced with a perplexing idea, namely that time can travel in reverse, from  $t_A$  to  $t_B$  via  $t_N$ . How could this be so? The proposal in this paper is that the “subjective reference” is in fact what we understand to be “consciousness”, and the “objective reference” being “reality”, time-space, in its primordial/raw form. How can it be proven/demonstrated that the subjective reference of this golden ratio interpretation of time is in fact consciousness? How is it possible to demonstrate “consciousness” to be a certain manifold of time-space? To answer this, a general description of the objective and subjective manifolds of time-space, of reality, shall be expanded upon in presenting the idea of “cause” and “effect”; it was simpler to detail the relativity of time using “subject” and “object” given the way we have been taught to regard relativity as a subjective or objective experience as per Einstein’s theory of relativity, yet now we shall add more scope by presenting the feature of what gives time “purpose”, and how those effects “emerge”, and as what.

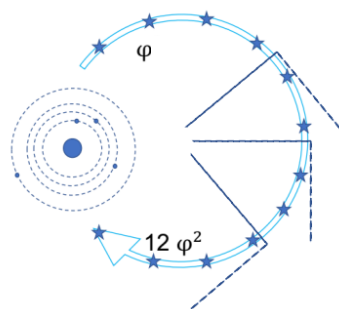
### 3. TIME AS CAUSE AND EFFECT

The lead-up papers [1-5] have presented the idea of the arrow of time, time moving purely from past to future. This idea is still carried. The entire modelling of space-time through the papers [1-5] has begun from first principals while developing a general overall time-space manifold using the golden ratio along this course of past to future. “That” has been the general “cause”, the thrust of “time”, its determination, more precisely though as per seeking to perfect a circle given its constraints as a wave-function (phi-quantum), which would imply a standard wave-function should ultimately collapse from 21.8 to a value of “1” on a stepped-up gauge invariant symmetry manner (something that shall be investigated). It was then presented that “consciousness” would represent the “emergent” feature of time-space through this process, and thus the “effect”. Thus, simply, the reality manifold of time-space as per times flow as “before to after” would represent the “objective” basis of reality, the “cause”, and the emergent feature of consciousness, the “subjective” feature that appears to perform as a process of “recall”, as a flow of time from “after to before”, would represent the emergent “effect” of reality. How does the idea of “cause and effect” play out though? Let’s look at the objective reference, primarily the behaviour of time as it moves from a general central massive source of interest.

#### 3.1 ***Creating an overall “now” / “present” reference***

Paper 5 [5] presented a general time-space manifold, a type of Copernican cosmos that nonetheless accommodated for key issues such as the red-shift effect and the CMB radiation. The idea of entropy was key in giving rise to the CMBR, effecting itself from the central manifold of what would be the Sun. The idea here was light

extending outwards from the Sun, out to the stars, being reflected per a certain “lens” of play, namely the golden ratio right-angle “wall”.



**Figure 1:** An atomic-styled solar-system platform with the CMB from the entropic process of the Sun reflected at right-angles in the stellar region.

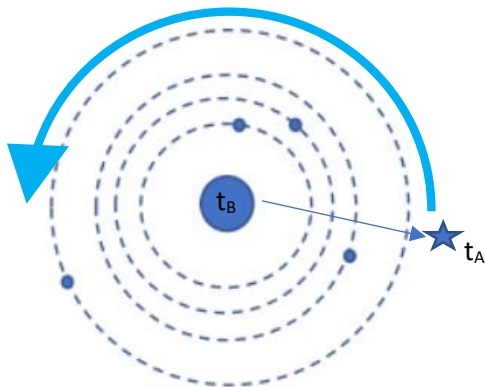
Owing to the nature of the first principals of light representing the photon, the generator in the atom for release of quanta via the electron’s energy shells, and more to this, owing to the first principle feature of the electron representing primarily the “before” time paradigm,  $t_B$ , then ultimately in the overall time-space manifold in its fractal gauge invariant build up to a “Copernican” atomic model solar system manner, the Sun would primarily represent the  $t_B$  realm, the primary source of light in the solar system time-space manifold. The matter-decay region would represent what can be termed an “end-zone” region where entropy takes its full effect, a region with the least matter, somewhere just beyond what we would consider to be the Oort cloud “disc” [6]. “Time” (per the first principals of the golden ratio algorithm for time for space [1]) moves from  $t_B$  to  $t_A$ . Along with this is the passage of light, and as we know along with this is the emergence of gravity, and thus a general gravitational movement away from the Sun, despite the obvious overpowering feature of gravity of the mass of the Sun itself. The question is, “how would this manifest in the solar system”?

### 3.2 Planets

In being consistent with the fractal gauge invariance stepping-up of a standard atom, and that we are in fact stepping up the model of that atom to cosmic proportions, while of course factoring in the emergence of gravity in this stepping-up process, it can be suggested that the Sun would be analogous to the proton/neutron and the planets analogous to the electrons inhabiting electron shell regions, while of course factoring gravitational effects (granted some theoretical licence), a process that owes itself to the golden ratio algorithm for time allowing such a fractal gauge invariance stepping-up with gravity calculated in. Yet stepping up the atom to such a large and thus presumably unstable level poses a theoretical problem. Why would the system go to an unstable level, why would it aim to be unstable, why would atoms develop in such a super stepped-up fractal gauge symmetry manner? It can only be considered that such is perhaps what is required to generate the necessary atomic compression for time to define a circle perfectly as presented in paper 2 [2] and 4 [4]. Such doesn’t happen on the atomic level, yet would only on much larger “super” stepped-up fractal gauge symmetry level, yet only by entertaining a different type of greater shell structure dynamic and number, as per the planets, satellites that exist in zones around the Sun, much like electrons exist in zones around the proton/neutron. It sounds far-fetched, yet this is the feature of fractal gauge symmetry, repeating the “atomic” pattern in this case to super extremely large levels, a feature granted by using the golden ratio as a “natural development of mass and energy in time-space.

Given that the Sun represents a  $t_B$  construct, and that gravity emerges from the passage of time and thus light as per paper 2 [2], and that the planets, despite being attracted to the Sun via gravity, would in the revolution around the Sun slowly move away from the Sun (owing to this general effect of time  $t_B$  as the Sun), the planets must logically orbit the Sun owing to the general gravitational effect between the planets and the Sun, on top of

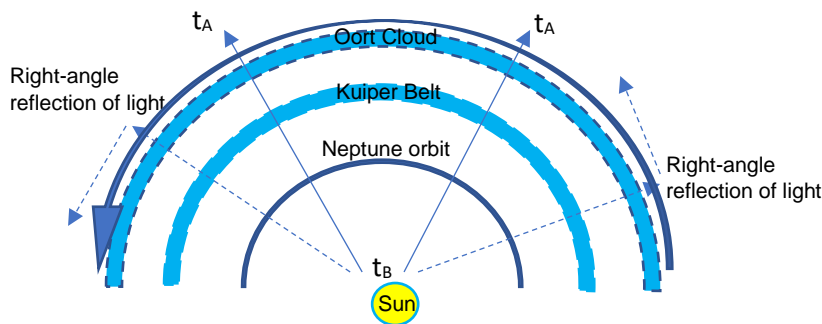
slowly moving away from the Sun given the  $t_B$  effect of the Sun as light moves away from the Sun, and thus time, and thus gravity. How slowly the planets would move away from the Sun is an issue that shall be addressed.



**Figure 2:** *super stepped up fractal gauge symmetry atomic system to a “Copernican” level, the planets orbiting yet slowly moving away from the Sun ( $t_B > t_A$ ).*

In taking this idea, it would be logical to suggest that there is a type of treadmill of planetary creation “at” the Sun, and planetary destruction at the “end-zone” region in the required steady-state system ([5]; p13). Basically, the natural effect of time would push the planets away from the Sun, as gravity is being suggested with this theory as a concept that emerges from electromagnetism and thus time. In now reviewing the idea of how light would behave at the “end-zone” region of the solar system, it can be considered that at the “end-zone” region of the solar system would be a general decay of planetary material from a planetary scale such as Neptune to that of vast heliospherical debris and dust-clouds, from an outer asteroid belt to dust, all the way to gases and atomic matter. Thus, we would have structures such as the Kuiper belt (larger asteroids) [7], the scattered disc (smaller asteroids), and the Oort cloud “disc” (gases and atomic debris, comets) [6], all relevant to an overall “end-zone” region heliosphere (magnetic feature) ([5]; p13). Coupling this “lens” of activity to the idea of light being reflected from this region (figure 3.).

“end-zone” swirl of light per the rotation of the planetary plane, which has associated to it (right angle) a “Plane-X” resultant swirl of light (fig. 4)



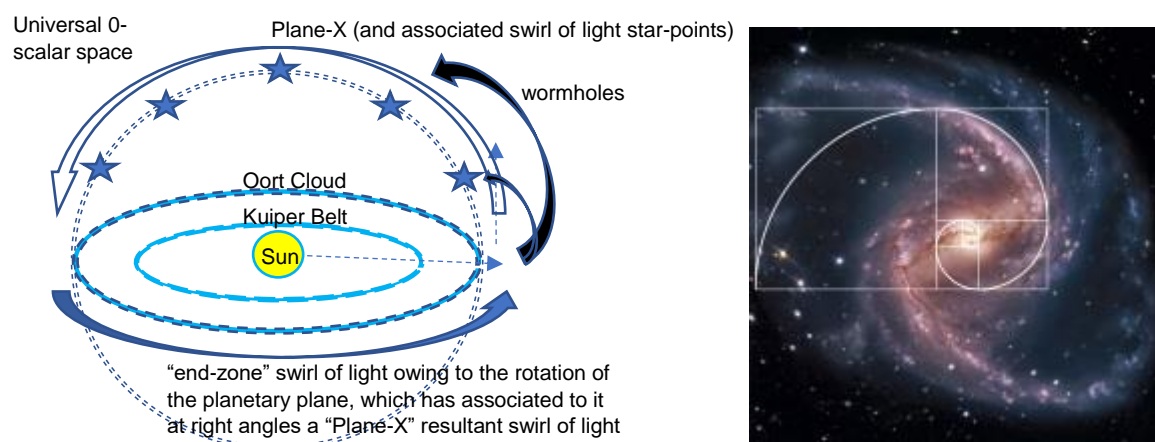
**Figure 3:** *the Kuiper belt and the Oort cloud “disc” forming the “end-zone” region of the solar system through which light is processed*

The proposal here is that we would view the image of the stars presented to us from our reference (Earth) as images reflected at right-angles to the Kuiper belt and Oort cloud “disc” plane, light as though swirling around this “end-zone”. This atomic-decay release of light in the “end-zone” and associated reflection of solar light on atomic debris/dust would occur at a right-angle to the plane of the Kuiper belt, also as though in the one plane; the arc plane of the resultant image of stars from the atomic decay and associated release of light in the “end-zone” would represent a general flow of light generally at right angles to the Kuiper belt and thus planetary plane, which is here termed Plane-X. The reason for this is the need to develop a basic “right-angle” relationship for the two values of the golden ratio as per the condition set out in paper 2 ([2]; p4).

### 3.3 Wormholes and Universal Quantum Entanglement

Everything now gets very complex at this “end-zone” of time and space; each reference of space around/outside this Plane-X region is defined as 0-scalar space, meaning that each point of light on the Oort cloud plane would be in a golden ratio quantum entanglement relationship potentially with the Plane-X reference, simply because space no longer has its own unique reference at this outside region in the absence of time (light), leading to the development of vast networks of “immediate” quantum relationship networks of points of light in that uniform 0-scalar space manifold. This feature of light via this quantum entanglement feature in the final right-angle (to the Oort cloud) plane would thus have to echo itself inside the entire 0-scalar system as a feature of “time”, as much as the atomic scale was scaled up as fractal non-invariance, it could be thought of also as scaling down from a universal level to the atomic; and this feature would make it possible for “c” violations (faster than light interactions, as per quantum entanglement) for any region of space with the golden ratio algorithm for time considered. The natural effect of this echo on time-space would be a type of compression (approaching zero) on the wave-function (as though light in being violated is being negated), and thus for instance the calculated value for  $N_A$  would be observed to be slightly lower in this new context with a factored in compression-factor  $k_s$  ([4]; eq.8).

What would be perceived of the stars therefore from an Earth reference in that entire system would be an immense and highly complicated structure of points of light displaying atomic behaviour. The closest idea to understand how this would work would be the idea of a vast array of “wormholes” [8] (the closest type of wormhole here being “Euclidean” in nature (geometric, right angle dependent, “imaginary” time)) channelling swirling points of light built on each other in a Golden Ratio (Fibonacci) manner (figure 4), performing this quantum entanglement from the limit/edges of the Oort disc and Kuiper belt to Plane-X.



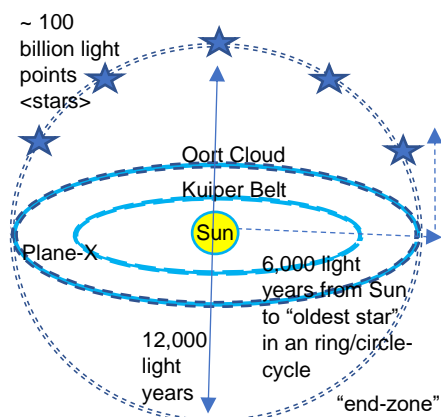
**Figure 4:** the light in the Oort cloud would be in quantum entanglement (via what would appear to be “wormholes” through 0-scalar space) with spatial locations in Plane-X via the universal 0-scalar space reference surrounding the temporal event-horizon primordial golden ratio relationship structure of swirling light points resulting in a type of Plane-X spiral galaxy.

The general plane of this “wormhole” (quantum entanglement) carried light is what we would perceive as the Milky Way [9] arching over the poles of our planet, at right angles to the plane of the planets. This milky way plane would provide for a massive field of point-light display, reflected through endless helispherical pipelines at the end-zone to Plane-X. Simply, starlight would be light from atoms endlessly channelled in this complex manner of quantum entanglement, each point of light on the Oort cloud in quantum entanglement with any number of spatial points in Plane-X. Once again, when creating a massive reference in a fractal gauge symmetry stepped-up fashion such as the Sun, the idea of gravity as an emergent feature takes effect, suggesting that the absence of gravity in the “end-zone” region well away from the Sun (to the point of reaching the very fundamental process of time as the

golden ratio as per figure 6 paper 5 ([5]; p12, fig.6) represents a type of exterior event horizon well away from that source of mass and light that allows for such a barrier, a mirror-effect, to exist for time/light to reflect back on as per paper 2 [2].

### 3.4 Measuring the Cosmos

As this theory presents, per a fixed golden ratio regarding space from any point in space at a fixed rate of time, the “front” of time would be a perfect sphere, and thus in each axis of space a perfect circle, on a primordial level. This primordial level though needs to echo/proceed through the system via the phi-quantum wave-function, and it would do so in a way where the Sun finds no disparity with its own position in a process of light travelling out to the “end-zone” and returning. The proposal in paper three [3] regarding a complete cycle of the solar system wheel of time was ~12,000 years ([3]; p7). In using *that* scale of determination, and granting the preceding statement in this paragraph, then the distance light would move out to the stars and back again would represent ~12,000 years; ~12,000 light years would represent a full period of a universal “process”, perfecting the circle, a ring-cycle, and the logic thus suggests such is the “minimum” diameter of our own Plane-X galaxy (Milky Way) [9] if a ring-cycle is in fact ~12,000 light years (figure 5.); the “maximum” diameter would factor in the feature noted in figure 7. It needs to also be noted that the “minimum” thickness of that galaxy could be other claimed value such as 10,000 light years (and this will be discussed on page 10).

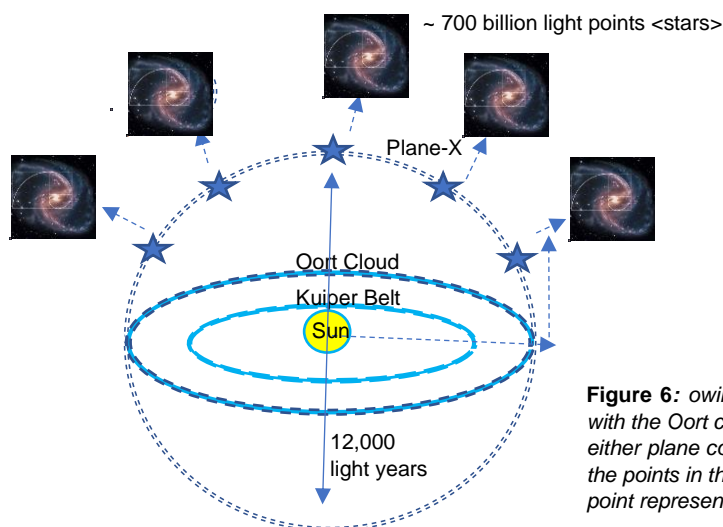


**Figure 5:** the diameter of Plane-X being ~12,000 light years, and ~6000 light years as a reference of distance from the Sun to the “oldest star” in a cosmic ring-cycle.

Note that “oldest” star as a reflection point would be ~6000 light years from earth, which is an astrophysical confirmed fact [10]. Once again, the appearance of that galaxy would be perpendicular to the plane of light travelling through the plane of the most dust/gas/matter (of the planets) in the solar system. Moreover, as the Sun would represent a unitary concept on a super stepped up fractal gauge symmetry level, we can then consider the Sun to be a type of singular atom in this Copernican-type solar system. Considering the “virtual” reflection of light taking place at the “end-zone” (as per the disintegration of atomic debris at the “end-zone”), we can consider stepping up the Sun to an Avogadro number of “virtual” Suns, and thus a projection of perhaps  $6.072 \cdot 10^{23}$  points of light in this virtual galaxy we would inhabit. As actual stars (Suns) though, this value would be not as a value of  $t_A$  yet  $t_B$ , and thus a value of  $\sqrt{6.072 \cdot 10^{23}}$ , as  $t_B = \sqrt{t_A}$ , and thus around 700 billion stars in our enclosed solar system “virtual” galaxy would be perceived in Plane-X.

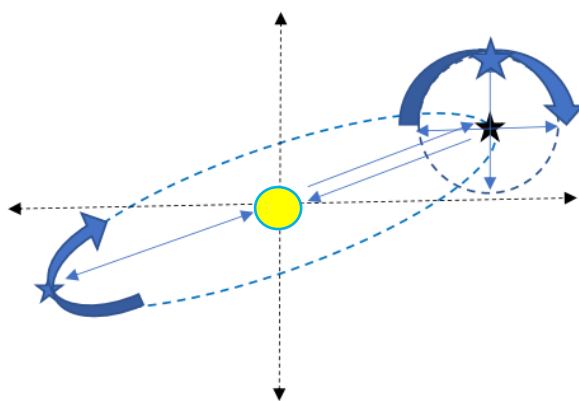
Such would be both the minimum diameter of Plane-X and associated number of stars. What we’re considering here is a “measured” cosmic wheel of time ring-cycle. Note also that, owing to quantum entanglement of each point of light in Plane-X with the Oort cloud plane, there would exist another 700 billion stars as a reflection beyond each point of light (star), and thus the idea of a Universe of galaxies (figure 6.).





**Figure 6:** owing to the quantum entanglement of Plane-X with the Oort cloud plane (wormholes), each of the points in either plane could be in quantum entanglement with any of the points in the other plane (multitude of wormholes), each point representing a wormhole effect for a spiral galaxy.

There's another peculiar feature to stars, not just as processes of atomic decay that would be commonly found with weak nuclear interactions (such as gamma bursts) [11], yet a feature that owes itself to the nature of the golden ratio algorithm for time taking place on that distant Oort cloud cosmic level, namely that a star would be slightly off centre to its actual point of light owing to the idea of a super stepped-up fractal gauge symmetry uncertainty principal process, and would thus perform a type of rotation, a wobble, in accordance with the right-angle law for the golden ratio on this primordial level (fig. 7.). Note also that this wobble would coincide with the idea of the atomic nucleus being associated to an electron, and thus a feature of a standard proton/neutron and electron atomic association as per the nucleus having an inherent wobble; contemporary theory recognises that the proton has a non-zero momentum distribution that mirrors the electron's which is especially important when comparing the spectroscopy of protium (Hydrogen-1) to that of deuterium or tritium.

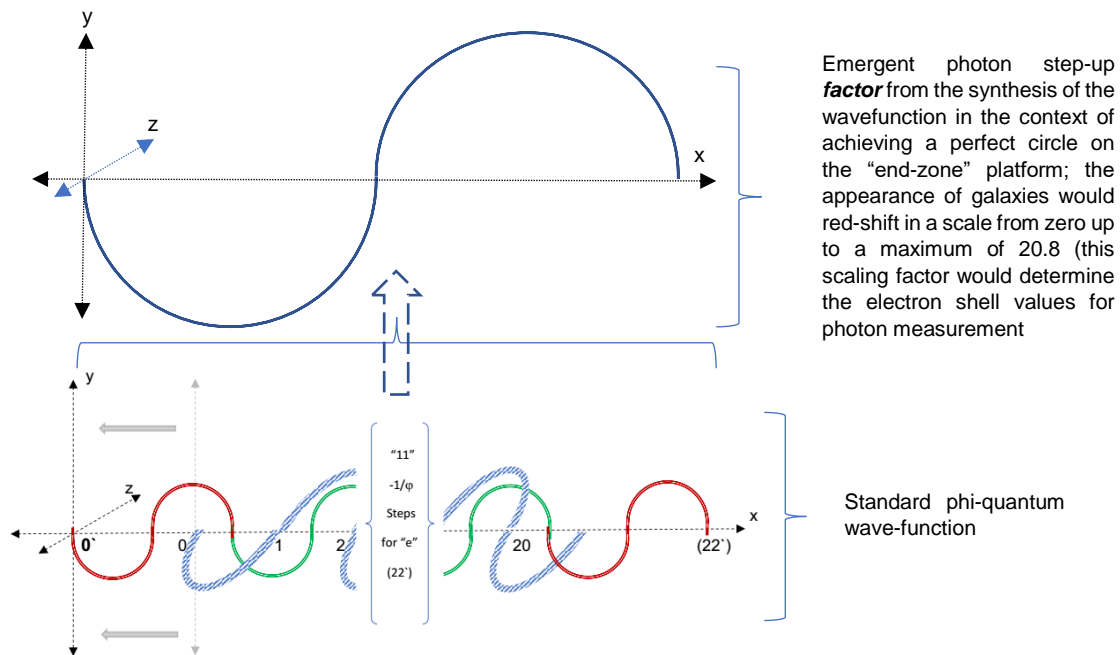


**Figure 7:** the idea of a super stepped-up fractal gauge symmetry uncertainty principal process effecting a type of rotation, a wobble, in accordance with the right-angle law for the golden ratio on this primordial level, the black star representing the actual point, the blue star represents the point as an image owing to the discrepancy in the phi-quantum wave-function (care of the uncertainty principle).

In astrophysics, the idea of stars having planets is based entirely on the idea that if stars wobble, it is evidence that there are bodies present such as planets throwing the gravity of the star off centre, hence the idea that wobbling stars have planets [12][13][14][15].

There's another peculiar feature to the observed stars; on the absolute level of an atom being presented on the end-zone region (including Plane-X for galaxies (image thereof)), the premise is that this region "would" represent the idea of a "perfect circle", the modus operandi of time as a wave-function being realised, and thus the 21.8 (22) phi-quantum wave function between the electron and the proton would "in theory" become a "singular

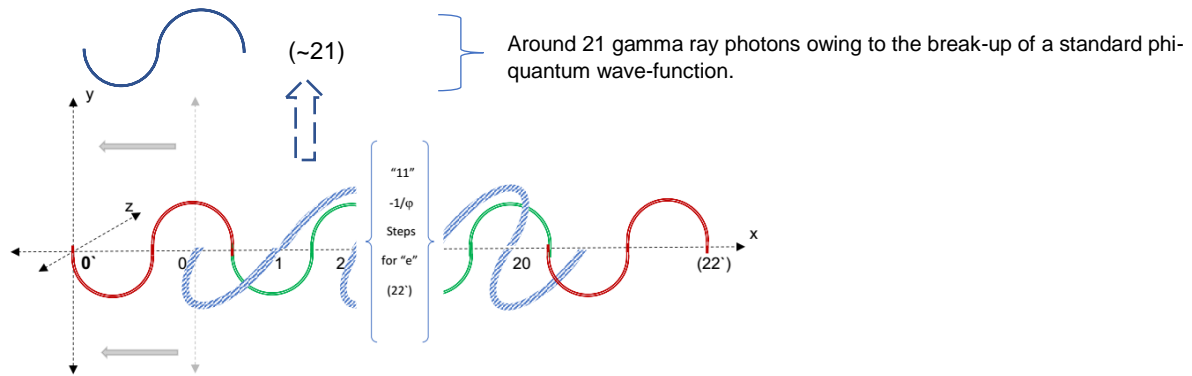
quantum”, and thus on this extreme level light would be stepped up by a factor of 21.8, red-shifted, thus the redshift factor “z” [16] would equate to ~20.8 (figure 8.).



**Figure 8:** the idea of the red-shift effect being the result of the ultimate achievement of a standard atomic wave-function to a singular photon length at the “end-zone” region, a feature which would dominate the appearance of galaxies in this ultimate “end-zone” Plane-X region as a red-shift factor of  $z = \sim 20.8$ .

This idea can be validated with the advent of the James Webb telescope [17] via which it can be demonstrated that the most distant stars have a red shift factor of  $\sim 21$ , and not the current value of 9-12 as per the Hubble Space telescope [18]. On top of this peculiar feature would be other features demonstrative of the elementary particles and their own processes (which shall be reserved for a subsequent paper), giving the astrophysical nature of stars their real granularity of appearance. What can't be forgotten is the CMB radiation, which would represent as a Microwave radiation a step-up of around  $z = 1089$  from the light of a standard atom. This is a theoretical value, as it presumes the CMB radiation is in fact a “red-shift”, yet the theory presented here in this series of papers [1-5] suggests it is something else entirely as per papers 4 and 5 [4-5]. Basically, the feature of the red-shift effect would represent a phi-quantum wave-function re-scaling from the 21.8 quantum number to a 1 quantum number at the “end-zone” (time defining a perfect circle), and thus a red-shift factor of 0 (Earth reference) to about 20.8 (“end-zone” reference). Note that the other two features of red-shift, namely the CMB radiation and post-big bang expansion, are not of the same process mentioned here.

Another thing to consider is what would happen when an atom decays completely? Quite simply the phi-quantum wave-function would collapse, releasing 21.8 (21) photons of light as gamma radiation bursts [11]. Studies have demonstrated gamma radiation bursts, together with their appearance in a back-drop of no observable stars. This phenomenon has been called a “white hole” [19], yet the explanation here makes the statement a white-hole is in fact the ultimate demise of a phi-quantum wave-function and thus atom (figure 9.).



**Figure 9:** With the decay of the phi-quantum wave-function would be each photon of the wave-function represent its own unique “gamma ray” burst.

One final thing to consider in measuring the cosmos would be the idea of radio-carbon dating [20]; radiocarbon dating is based on the idea that radiocarbon is constantly being created in the atmosphere by the interaction of cosmic rays with atmospheric nitrogen. Simply, radio-carbon dating depends on cosmic radiation which per the theory forwarded here would represent a burst with every planetary creation, once every ~12,000 years or thereabouts. How would this be calculated per our new understanding of CMB radiation, this measurement of cosmic radiation contained in matter? More importantly, what would be the age of our reference, of Earth, with our new understanding of CMB radiation? If it can be considered that Earth with its Moon were a part of the one cosmic event (planetary nova at the Sun), not to forget that as the Moon is roughly the size of Mercury, then Venus and Mercury were most likely part of the one cosmic event also (planetary nova from the Sun, a type of mini supernova, giving rise to Venus and Mercury in the most recent stream of the cosmic ring-cycle). It was highlighted here that the age of the Sun as calculated here for each cycle would be a ~12,000 years. Therefore, the age of Venus would be that value (~12,000) times its own “current” age (age since last solar system “nova”. If we could propose the last system “event” happened shortly after the dawn of our civilization, say ~4,500 years ago, as the “factor” here must be the basic background age of the cosmos at any one time, then Venus and Mercury would represent a ~4,500-year age factored with ~12,000 years (and thus ~54 million years). Can radiocarbon dating of the atmosphere of Venus prove this? Earth would be that value factored by another ~12,000 years (and thus ~650 billion years, the accepted value being ~455 billion years [21]). Note that if we consider the cosmic ring-cycle as ~10,000 years, the figures here become more accurate to most recent findings (as a calculated Earth age of ~540 billion years). Nonetheless, Mars would therefore be that value factored with another ~12,000 years, and thus a value seemingly off the charts when it comes to carbon dating; hence Mars would, by the process of the previous cosmic planetary-nova event, have had all its carbon structures obliterated [22]. Simply, there would be no carbon on Mars, it would be off the charts, while on Venus the value of carbon dating for the atmosphere would be quite young (a value of ~54 million years). Note that these are values for the basic planetary rock structures. The question now to be asked is, “how would consciousness emerge from this process for us here on Earth?”

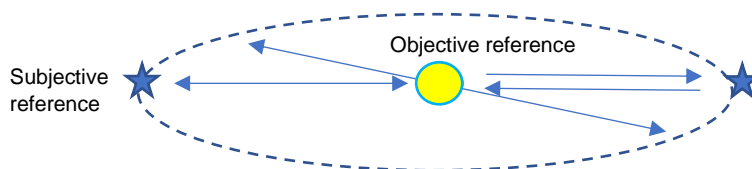
#### 4. EMERGING CONSCIOUSNESS

Rene Descartes defined consciousness as a “realm of thought” [23]. The realm he was alluding to was considered as intangible, yet a realm nonetheless. Here, the case is being presented that “consciousness” represents a type of “subjective” reference for the flow of time, as per “time after” to “time before”, a physical impossibility as the arrow of time [24] goes, yet as a concept of consciousness perhaps not, given consciousness is deeply embedded in the idea of “recall” [25], the event of memory, and time a concept of time in reversal (after

to before, if not “now” to “before”). In paper 3 [3] it was confirmed that the emergence of light from the atomic level represented a well-known equation for chaos theory, the “logistic map equation”. From the idea of consciousness as a need for this system of time and space to resolve the disparity between light and particle location was presented, together with the need to reach an exact value for “ $\pi$ ” (as was the basis for the axioms of time upon space in the development of the atom in the second paper). A list of features of this proposal of consciousness as an emergent entity were presented that describe well-known features of the idea of consciousness. It was concluded that the proposed hypothetical manifold bore some resemblance to ideas of consciousness, and not just consciousness but the idea of an absolute consciousness. However, in that paper [3], the key finding had been a value for the energy of a photon, together with an equation for time on the extra-atomic level that in all structure represents what is already known to be the “logistic map equation”, a key equation used in the investigation of chaotic systems. From that equation, it was suggested that upon that manifold, that extra-atomic manifold, would need to emerge the idea of consciousness as a process of light/observation finding parity with the calculation of a particle regarding its location, resulting in many ideas regarding consciousness found familiar for the idea of consciousness. Now the idea of consciousness being the “subjective reference” of time is presented in this paper as a purely “after to before” phenomena, much like the idea of pure “recall”.

In this paper, the suggestion is that fundamentally the objective reference of an overall super stepped-up fractal gauge invariance time-space manifold would be the Sun as  $t_B$ , yet as per papers 2 and 3 [2-3] the emergent feature containing all the required issues of quantum entanglement rectifying the disparity between the location of an elementary particle and its quantum was proposed to be “consciousness”, as a form of “compression” of the phi-quantum wave-function. Logically, as a compression, we would naturally think that the primordial past>future flow of time would have a “reversal” effect in play; the notion in this paper is that as per paper 3 [3] and as proposed here it would be the element of “consciousness”.

In terms of the overall time-space manifold, we would consider that the Sun represents an ultimate  $t_B$  temporal event, sending out light in an entropic manner to the “end-zone” of the solar system, which logically would represent the  $t_A$  event. We said that energy would emerge from the atom on the  $t_B$  enthalpic level as entropic  $\varphi$ , yet this would become as  $\varphi^2$  as an enthalpic event, as  $12\varphi^2$  to be precise ([5]; p9). The suggestion there was that reality would be organised with a central atomic platform “around which” would be a cosmic platform providing for a central atomic platform per a “12”-factorial capture process such that “time” as energy would need to impart itself as  $\varphi$  upon the general  $12\varphi^2$  atomic manifold, and somehow undertake a rise in value to link with the atomic enthalpic process. This would occur via an “atomic” styled primary manifold (given fractal gauge invariance) for reality, which would give rise to the  $\varphi$  CMBR, which would then logically feedback to a primary  $12\varphi^2$  atomic manifold. Here, therefore, with the inclusion of the “objective reference”, it, the “objective reference”, would be “where” the entropy occurs, and the “subjective reference” would be “where” the enthalpy occurs.



**Figure 10:** outline of the proposed system time-space “subjective” and “objective” references

As per paper 5 [5], essentially on this universal atomic system manifold level, the highly complex nature of atoms and compounds would be reduced in the entropic process (exothermic reactions), imparting this fire/energy to the CMBR; atoms in releasing energy would become locked in with other atoms in the form of new reduced compounds and molecules, and this process would happen from a region of highly complex atoms to less complex atoms. These compounds and molecules would ultimately form a massive structure of primarily heat release, a central  $\varphi$  manifold of time-space (like a Sun), which as explained would need to impart energy to the

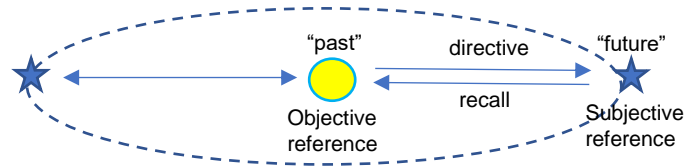
$12\varphi^2$  cosmic manifold region, ultimately an event that would happen as a mass core ejection from the Sun (giving rise to planets through time). The process would be one of the level of the atom continually adapting with other atoms to create a homeostasis with the system of time-space in the context of those general laws, ensuring that the shape of reality would be maintained per the overall balance of laws for time-space, through merging with other atoms to release heat/energy. Moreover, in the context of the idea of consciousness emerging from chaos (paper 3 [3]), from this entire process, consciousness would represent this energy process of the atomic  $12\varphi^2$  level seeking the CMBR  $\varphi$  level, as the process of time perfecting  $\pi$ . And thus, the demise of matter, its disintegration, would logically be the  $\varphi$  construct/platform/manifold of time-space providing for the  $12\varphi^2$  time-space manifold. Figure 10 demonstrates the Sun would represent the past-event “objective reference”, and that the stars represent the future-event “subjective reference”. “Consciousness” as a process of future>past would therefore represent a “cosmic”/stellar manifold. How can this be so? How can the idea of consciousness represent what is presented here as an illusion?

In paper 2 [2], consciousness was considered to represent the feature that rectifies the disparity between position of an elementary particle and its quantum (light) reference. Paper 3 [3] presented how this feature of consciousness, this function, would emerge from chaos in it being associated directly to the logistic map equation. Here the suggestion is that the phi-quantum wave-function compression would be because of quantum/light rectifying its disparity with an elementary particle in the form not merely of wave-function compression, yet a process of time as future>past. This is fine to propose, yet consciousness itself would need a “basis” to exist from a primary “objective reference” source. How? What is the “objective” reference source of consciousness? One suggestion is that the “objective” basis of time-space would logically be the Sun, as light shining into the “end-zone” of space. Here, the “subjective” basis of time-space would be a process of that light reflecting to the Sun “as” a subjective experience, “as” a “self-awareness” of the time-space manifold of light within itself; the time-space manifold (cosmos) being “self-aware” would be a process of the light shining out, then shining back, in a manner of being “itself”. In this process, when equating consciousness into the time-space manifold of the cosmos (solar system), the cosmos would perceive itself by the process of illuminating its own environment, as a collection of planets and star images, “as” the process of light shining out from the  $t_B$  region to the  $t_A$  region, reflecting from the  $t_A$  region back to the  $t_B$  region. Note also that as per the definition of the emergence of consciousness (as per papers 2 and 3 [2-3]) the idea of consciousness would primarily be an idea of “time” as “light” being fixed with the idea of a perfect circle. Thus, the objective directive of the Sun would be as such, namely to overcome that inherent flaw of the time-space manifold. It would achieve this as a cycle of “pi-time”, a cosmic time-wheel cycle, that then would return to that part of the time wheel that is defined as the beginning. The temporal location of the beginning and the end would be arbitrary, yet logically would represent the time of each planetary nova at the Sun.

## 5. HUMAN CONSCIOUSNESS

Human consciousness deserves a mention here, as it is something science is beginning to take more seriously in the context of biological theory and artificial intelligence systems. The idea of humans as a species being a part of a whole theoretical field of consciousness, as this theory proposes, would be elementary; consciousness would be a part of the system objective/directive and subjective/conscious experience. Simply, consciousness would exist as pieces of the entire time-space cosmic puzzle as relevant to a localised area in that manifold of time-relativity; consciousness would be both the Sun as an objective “directive” and stars as subjective “recall” (figure 11.). Subjective awareness to us would be understandably an immaterial thing, relevant to an “illusion” process of “recall” (future to past, like a memory, a capturing of images, a piecing together of a puzzle in

time), and thus the power of perception, as something to us more as an “imagination” than something that can be proven.



**Figure 11:** outline of the proposed time-space subjective and objective references

Logically, as humans, it would seem natural for us to consider that we as a consciousness had our origin in the stars, to have come from the stars; the key point being that part of our underlying understanding of being conscious would be our awareness that we came from the stars; how we would make that a truth, or realise that as a truth, time would only tell. We can nonetheless propose that one way of confirming this with our consciousness would be by labelling our birth with a pattern of the stars. Our zodiac for instance is determined by the time of our “birth”, like a telling of where we have come from “in time”. Such is how we “relate” ourselves in the context of not just the months, but a certain star sign representative of that month as an account of “time”. It’s an issue we have largely taken for granted, and is thus perhaps not as unscientific as previously thought. How would we emerge as a species? Logically according to the theory of time and the golden ratio proposed here, as per deduction of all things presented thus far, we would emerge/evolve as a sub-species (to human) on a planet (Venus) de-novo from the Sun, slowly. Ultimately though it would take a “full” cycle of the cosmic time wheel for us to be “self-aware”, a “new” planetary creation event we would have to survive, and thus if we began our evolution on the planet Venus, we would have only become self-aware as a species since the last planetary nova event, say 4,500 years ago, here on Earth, which does seem to coincide with our social congress and recording of it as a people. Of course, such an idea is cause for much debate, yet the idea of carbon dating has been addressed, those time frames and why. How we would account for our time as being a “self-aware” species would have much to do with how we would consider a “creator”, the “Sun”, the “stars”, and our human identity relevant to all such manifolds.

In granting more thought for other considerations regarding consciousness regarding the proposed theory here, the Sun as the objective reference of reality would represent the key directive of planetary nova. The directive for us therefore as humans, as an endeavour into the future, would ideally be relevant to the that system, that greater object we live within, and aligning with that mechanism of understanding and abiding with planetary nova. Logically therefore, our struggle as humans would be relevant to abiding within the confines of the greater object, while still being “human”, the virtual light from star dust, as a consciousness, imaginary figures to each other, cast though as real people in a greater objective reality which as the Sun would ultimately to our opinion grant us freedom as a species, within the limits of its own objective operation, a system within which there would be codes of survival for species that keeps everything ordered, codes even humans themselves identify with as behavioural mechanisms of self-identification and preservation with one another. Notwithstanding, our world as humans would primarily depend on our ability to be imaginative, to almost create our own new universal world, star world, in the confines of the great objective system, within limits of course, and thus develop sciences and belief systems in accordance with that. The most accurate understanding of ourselves would be our conscious “imaginative” nature, the rest our physicality (the more objective task of our survival). Our subjective reference would logically represent “freedoms”, imaginary notions, and the objective reference more of a system strategy. Essentially, we would all be linked into a general “system” cosmic (star) consciousness, although we would have our own reference; we would be free per mechanisms relevant to our belief that the system consciousness has allowed us to be free.

These thoughts and ideas regarding human consciousness and perhaps “purpose” are merely notions though, derivatives from the greater play of time and space, ideas sprung from a manifold that define how that concept, consciousness, would interact with time and space as a different process of time. A subsequent paper is required to properly address the actual code of our consciousness as a type of algorithm that can be verified

through years of congress in the study of philosophy, psychology, and medicine, while still remaining perfectly scientific, yet not before a just as important paper is required detailing the idea of gravity emerging as an entropic entity from the atom together with its feature as an event horizon singularity.

## 6. CONCLUSION

In investigating the idea of time as a concept of “relativity”, and not space as Einstein proposed, we have determined concepts such as “subject and object” and “cause and effect”, as when applied to the golden ratio time algorithm. In other words, by coupling the ideas of the relativity of time into a golden ratio time-space manifold and associated universal construction, several features have become apparent relevant to the overall structure of the time-space manifold and associated proposed idea of consciousness emerging from chaos [3]. A “planetary cycle” was deduced from such theory, with the proposal of an “end-zone” debris region at the perimeter region of the time-space manifold. Thus, the big question is whether the stars are real and thus if they represent a valid agenda for discovery or not. That’s really an issue for actual discovery. Contemporary “theories” of the stars are still just theories, and the theory here is no different, as all along its course it has remained true to a process of logic (the golden ratio algorithm for time) while depending on and confirming in most cases through derivation known scientifically discovered values; per this paper and the 5 preceding papers [1-5], there isn’t very much unaddressed regarding the possible nature of reality, of time-space, using time as the golden ratio and the key factor in the context of relativity. All the equations relevant to mass, energy, electromagnetism, gravity, time, space, entropy, enthalpy, temperature, atomic modelling, and even the idea of consciousness, have been covered. Is it worthy of being a potential grand unified theory of time and space? The Planck scale has not been included, as it was considered unworkable, too small a scale, way under the basic level time can be considered as a golden ratio wave-function, and most ideas central to our understanding of the stars have been put in a new frame of thinking owing to how the discussion on time and space using the golden ratio had logically if not practically development in keeping all the equations married with the fundamental definition of time for the golden ratio. The theory simply ran its course without prejudice of opinion other than remaining true and thorough with thought to the golden ratio algorithm for time. There is though a key process still missing, namely the process of gravity as an emergence from electromagnetism, how that can be neatly defined as a paradigm in its own right, and how that can be demonstrated as per experiment, the context of the next paper.

There are through these papers thus three forms of “proof” on offer that have been exclusively derived from this golden ratio algorithm for time. The first would be creating artificial gravity even though it would be a difficult endeavour, simply because what has emerged in the system has emerged through a system based (natural) process, and thus any “artificial” gravity could be unstable and need multiple systems of generation and containment to consider, much like the atom becomes unstable when it has developed upon its natural electron shell limit. In the case here creating a “virtual” atom with a “virtual” emergent gravity effect would require means not found in nature, and thus contrived from one level of reality (the atomic scale of emergent gravity) to exist on another (our human scale level) according to a scale of fractal gauge invariance, from the atomic level to our human level, unnaturally so, which would logically cause a “compression” effect aiming to collapse the mechanism of artificial generation to the atomic level (unless otherwise designed for it to prevent collapsing to an atomic level). Another key form of proof would be carbon dating measurements on the planet Venus, an estimated value of ~54 million years. Yet perhaps the most accessible proof that can be offered is with the correct prediction of the maximum red-shift effect which the James Webb telescope proposes to resolve, the theory here predicting a value of ~21 (z).

## Conflicts of Interest

The author declares no conflicts of interest; this has been an entirely self-funded independent project.

## References

1. Jarvis S. H. (2017), *Gravity's Emergence from Electrodynamics*, <http://vixra.org/abs/1704.0169>, [www.gravielectric.com](http://www.gravielectric.com).
2. Jarvis S. H. (2017), *Golden Ratio Axioms of Time and Space*, <http://vixra.org/abs/1706.0488>, [www.gravielectric.com](http://www.gravielectric.com).
3. Jarvis S. H. (2017), *The Emergence of Consciousness from Chaos*, <http://vixra.org/abs/1707.0044>, [www.gravielectric.com](http://www.gravielectric.com)
4. Jarvis S. H. (2017), *Phi-Quantum Wave-Function Crystal Dynamics*, <http://vixra.org/abs/1707.0352>, [www.gravielectric.com](http://www.gravielectric.com)
5. Jarvis S. H. (2017), *Time as Energy*, <http://vixra.org/abs/1707.0352>, [www.gravielectric.com](http://www.gravielectric.com)
6. Jan Oort (1950). "The structure of the cloud of comets surrounding the Solar System and a hypothesis concerning its origin". *Bulletin of the Astronomical Institutes of the Netherlands*. **11**: 91–110
7. Stern, Alan; Colwell, Joshua E. (1997). "Collisional Erosion in the Primordial Edgeworth-Kuiper Belt and the Generation of the 30–50 AU Kuiper Gap". *The Astrophysical Journal*. **490** (2): 879–82.
8. Eduard Prugovecki, *Quantum Geometry: A Framework for Quantum General Relativity*, Springer, 2013, p. 412.
9. <http://sydney.edu.au/news/84.html?newsstoryid=2163>, webpage accessed 8<sup>th</sup> Jan. 2018.
10. "Gamma Rays". NASA. Archived from [the original](#) on 2012-05-02.
11. <http://www.techtimes.com/articles/3321/20140211/say-hello-to-oldest-star-in-the-universe-just-6-000-light-years-away-from-earth.htm>, webpage accessed 8<sup>th</sup> Jan. 2018.
12. <https://exoplanets.nasa.gov/interactable/11/#/1>, webpage accessed 8<sup>th</sup> Jan. 2018.
13. <https://exoplanets.nasa.gov/interactable/11/#/5>, webpage accessed 8<sup>th</sup> Jan. 2018.
14. <https://exoplanets.nasa.gov/interactable/11/#/2>, webpage accessed 8<sup>th</sup> Jan. 2018.
15. <https://exoplanets.nasa.gov/interactable/11/#/4>, webpage accessed 8<sup>th</sup> Jan. 2018.
16. Huggins, William (1868). "Further Observations on the Spectra of Some of the Stars and Nebulae, with an Attempt to Determine Therefrom Whether These Bodies are Moving towards or from the Earth, Also Observations on the Spectra of the Sun and of Comet II". *Philosophical Transactions of the Royal Society of London*. **158**: 529–564.
17. <https://www.nasa.gov/feature/nasa-s-james-webb-space-telescope-to-be-launched-spring-2019>, webpage accessed 8<sup>th</sup> Jan. 2018.
18. <http://www.spacetelescope.org/news/heic1219/>, webpage accessed 8<sup>th</sup> Jan. 2018.
19. A. Retter & S. Heller (2012). "The revival of white holes as Small Bangs". *New Astronomy*. **17** (2): 73–75. [arXiv:1105.2776](https://arxiv.org/abs/1105.2776), [Bibcode:2012NewA...17...73R](https://bibcode.org/2012NewA...17...73R), [doi:10.1016/j.newast.2011.07.003](https://doi.org/10.1016/j.newast.2011.07.003).
20. Libby, W.F. (1946). "Atmospheric helium three and radiocarbon from cosmic radiation". *Physical Review*. **69** (11–12): 671–672.
21. [Dalrymple, G. Brent](#) (2001). "The age of the Earth in the twentieth century: a problem (mostly) solved". *Special Publications*, Geological Society of London. **190** (1): 205–221.
22. <https://www.space.com/31215-mars-missing-carbon-mystery.htm>, webpage accessed 8<sup>th</sup> Jan. 2018.
23. Descartes, René (1644). *The Principles of Philosophy* (IX)
24. Morowitz, Harold J. (September 1969). "[Book review: Time's arrow and evolution: Third Edition](#)". *Icarus*. **11** (2): 278–279.
25. Watkins, M.; Gardiner, J. M. (1979). "An appreciation of the generate-recognize theory of recall". *Journal of Verbal Learning and Verbal Behavior*. **18**: 687–704.