

Section 3: Analysis Supplementary Section

In this section we continue the discussion started in the print section for other issues of the paper not included in that section; these are:

- Planck and Ferent times and lengths
- The formation of different astronauts
- The earth inhabitants
- The Theory of Everything
- The Black Holes & Singularity
- The curvature of the universe

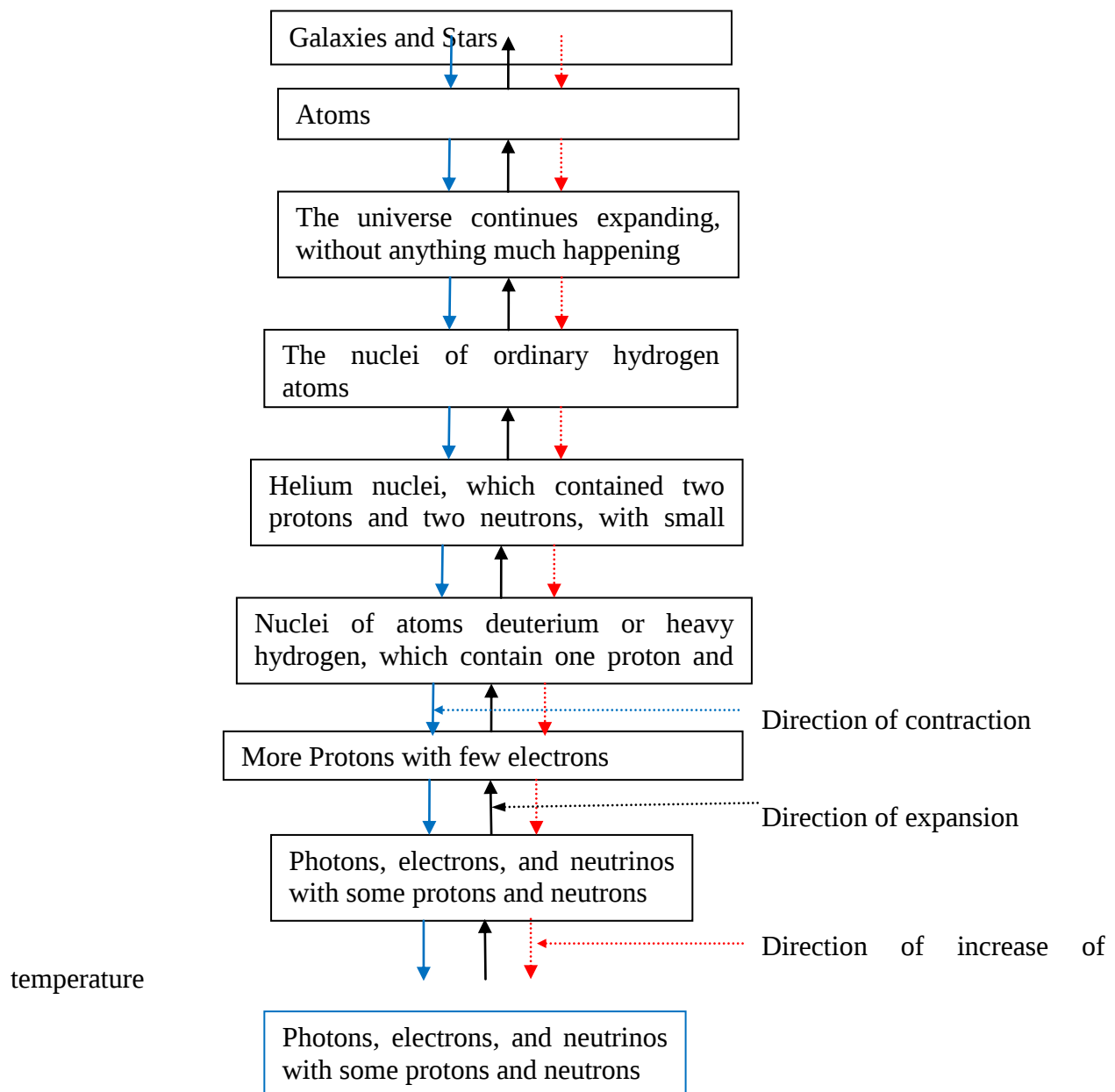
3.1 Planck and Ferent times and lengths

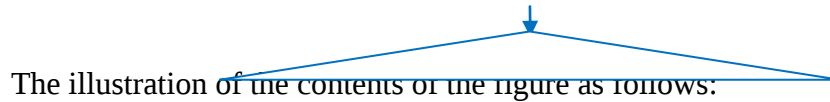
Planck's time is reported to be the smallest period of time that can be measured. One Planck's time is the time it would take a photon travelling by speed of light to cross a distance equals to one Planck's length. It roughly equals 10^{-43} seconds. And Planck's length is the smallest unit of length; it equals 1.616255×10^{-35} m. At this point of time no smaller meaningful length can be validly measured, 4. Adrian Ferent in his paper "Einstein Gravitation theory is wrong" declared that he found a wall that replaced Planck's wall with his "a" constant lower than Planck's "h" constants ($a = 1.590511178 \times 10^{-76}$ J·s versus $h = 1.616255 \times 10^{-35}$ m). The smallest defined scale of time is Zeptoseconds, which equals 10^{-21} seconds. As we mentioned earlier, the lowest time unit attained in our accumulated figures process is X95.Zeptosecond according to our extended definition of scale of time, which equals 10^{-4500} seconds versus 10^{-43} seconds Planck's time. With respect to the length measurement of time, the accumulated figure of our lowest scale of time equal $1.62590000000001E-307$ accumulated figure versus 1.616255×10^{-35} m for Planck's length, and $1.590511178 \times 10^{-76}$ J·s for Ferent J.s length. So one second of Planck's time equals $1E+58$ seconds of our lowest time; and one J·s of Planck's length equivalent to $9.94E+271$ accumulated figure. It is interesting to notice here that, irrespective of the units of measurements and the negative component value, all the three measurements of lengths almost the same (1.6), with Planck's length value the closer to our accumulated figure value, 1.616, versus 1,626. However, Planck wall is experimental wall whereas our wall is a theoretical wall, which could be subject to experiment in advanced stages of quantum physics. If we continued dividing our lowest scale of time X95.Zeptosecond along with its accumulated figure $1.62590000000001E-307$ by 1000 subunits, we would never come with scale of time or its accumulated figure equal or lower than zero; nevertheless, we would come with walls lower than our first wall, for each division. This paradox is solved by the fact that according to our definition of infinity the universe is infinitely self content with infinity characteristic everywhere; hence the zero here is infinitesimal zero. In this case we would come with another wall, an infinitesimal wall, which would generate lower infinity sets of walls by dividing it continuously by 1000. If we calculated the lower scale of time and its highest subunit's accumulated figure before our previous wall we would find it to be X1095.Zeptoseconds with accumulated figure equals $1.62428E-1304$ for its last 1000^{th} subdivision. So, we would come with infinitesimal wall starts from $(X1095+n \times 1000)$.Zeptoseconds with accumulated figures equal $1.62428/E-1304^{\wedge n \times 1000}$. We call the first wall as Hamza wall and the infinity set of walls as Abuelyamen infinity walls.

3.2 The Formation of different Astronauts

In this part of the section we are going to present some information on the accumulated figures of space-time's locations of different astronauts along the expansion of the universe. We followed what reported by Hawking about the time of formation of different astronauts, and simulate that to our space time accumulated figures by undertaking the respected calculations. We present first a summary of that in a flow chart in Figure SA.1 as follows:

Figure SA.1: Flow of Accumulated Figures of Different Incidents along the Expansion





The illustration of the contents of the figure as follows:

- ❖ The rectangular boxes in the figure represent the formation of the astronauts and their expanding locations at the different stages of the expansion
- ❖ The black arrows represent the direction of the expansion; and the blue arrows represent the direction of the contraction.
- ❖ The red arrows represent the direction of decrease of temperature from the starting of the Big Bang; we put its location at the top of the model to show that its values decrease in descending order opposite to the direction of the expansion.
- ❖ Finally the triangle at the bottom of the model represents the virtual expansion of the universe in the opposite direction of the real expansion.

We note here that what presented in the figure is a sample of the whole model for different stages and that the location of the smallest accumulated figure, $1.62590000000001E-307$, is after the zero point of the Big Bang. The accumulated values represent the space component of space-time; and the differences between them represent the time component.

Referring to Hawking paper on the space-time formation of different astronauts and the verse from the Holly Quran, translated as “*A day with your Lord is like thousand years of your count*”, we calculated the accumulated figures of the respected astronauts as follows:

3.2.1 Photons, electrons, neutrinos and others:

The first particles formed after one second from the Big Bang, as mentioned by Hawking, were electrons, and neutrinos with some protons and neutrons as shown in the figure; if we assume that the value of the day's accumulated figures, which equals 0.018145, is equivalent to 1000 years, referring to the above verse, then the accumulated figure equivalent to a second's local space-time would be calculated as follows:

- Days in 1000 years = $1000 \times 109575 = 109575000$
- Seconds in 1000 years = $109575000 \times 24 \times 60 \times 60 = 947280000000$
- Accumulated figure equivalent to one second = $0.018145 / 947280000000$
- = $1.91548433E-14$

Therefore the accumulated figure location of the electrons, neutrinos, and other particles indicated in the figure in space-time would be equal $1.91548433E-14$. The accumulated figure of this location and all different subsequent locations would be the same around the parallel spherical locations of the universe. More Protons with few electrons would be formed after that as reported by Hawking.

3.2.2 Deuterium Nuclei (Heavy hydrogen)

After about one hundred seconds after the beginning of the Big Bang the deuterium nuclei would be formed; its accumulated value of location calculated as follows:

- The value of accumulated figure per second = $1.91548433E-14$

- The value of accumulated figure for 100 seconds = $1.91548433\text{E}-14 \times 100$
 - = $1.91548433\text{E}-12$
- Therefore the accumulated figure values of deuterium nuclei location in space-time:
 - = $1.91548433\text{E}-12$

3.2.3 Termination of helium and others

No interval of time is specified for the next stages in the model according to Hawking; but it is indicated that within only a few hours of the Big Bang, the production of helium and other elements would stop. If we assume that this happened within 3 hours, then the accumulated figure at the location at which the helium would stop, would be as follows:

- The value of accumulated figure per second = $1.91548433\text{E}-14$
- The value of accumulated figure per hour = $(1.91548433\text{E}-14) \times 60 \times 60 =$
- = $6.895743588\text{E}-11$
- The value of accumulated figure per 3 hours = $6.895743588\text{E}-11 \times 3 =$
- $2.0687230764\text{E}-10$
- Therefore the production of helium and other elements stopped at accumulated figure location equals $2.0687230764\text{E}-10$

3.2.4 Atoms

For the next million years or so after the termination of helium and other particles, as indicated by Hawking, the universe would continue expanding without anything much happening; then the electrons and nuclei would start combining to atoms. However during this period with respect to our process the accumulated figures would continue to take place, but we could not calculate it because no information was available during this period. As for the starting of formation of atoms, which indicated to be million years plus the assumed 3 hours, if we neglected these 3 hours, the accumulating figure at the location of starting the formation of the atoms was calculated as follows:

- The value of accumulated figure per year = 6.75
- The value of accumulated figure per million year = $6.75 \times 1000000 = 6750000$
- Therefore the accumulated figure at the location of the formation of atoms equals 6750000

We notice hear that, according to Hawking's estimation of the formation of atom, the value of the accumulated figure of this location came to be far larger than that of the first year of the origin of the reference's date/time in space-time (6750); this means that the development of the accumulated figure of the origin of eclipse's date in space-time (The 2024th total eclipse' incident) had started before 6743250 accumulated figure from the atom formation, $(6750000 - 6750)$; hence the accumulated figure of the origin of the eclipse's incident would be equals 13493250, $(6750000 + 6743250)$. Accordingly if we calculated the age of the formation of atoms and that of the eclipse incident relative to the reported age of the universe, we would find them to be 493 thousand years for the formation of atoms, and 9 million years for the eclipse incidents.

3.2.5 Galaxies and Stars

Finally, for the formation of Galaxies and Stars, no date/time of their formation recorded in this respect. However, it was mentioned that the sun was formed some five thousand million years ago. If we calculated this time on the base of our accumulated figures with the same method, as the previous procedures, we would find that our sun's formation accumulated figure in space-time located at 30375000 million accumulated figure, which equals 41 million years relative to the 13.8 milliard years reported for the age of the universe, and according to the equivalency of the divine day to our time as indicated in the Holly verse.

3.3 The Earth's inhabitants

With respect to the formation of Earth up to the mankind creation, it is mentioned by Hawking that what happened after the formation of galaxies and stars was not completely clear". In this regard there are different reports came in science and revealed in the Holly Quran. For scientific theories it came in the literature that the galaxies were formed before the stars and planets. In the Holly Quran the verse number 11, Fussilat Sura translated as *"Then He turned to the sky, and it was smoke, and said to it, and to the earth, 'come willingly or unwillingly'. They said, 'we come willingly'"*; this happened after the Almighty Allah created the earth and placed stabilizers over it and planned its provisions as stated in the verse number 12 in the same Sura translated as *"So He completed them as seven universes in two days and He assigned to each universe its laws. And We decorated the lower universe with lamps and for protection. This is the design of the Almighty, the All-Knowing"*. This means that either the earth was formed from the galaxies while they were smoke or before that but after it had being completed with stabilizers and provisions. As for our accumulated figures, in any case, the accumulated figures would continue with general characteristics represented spherically by the same parallel accumulated figures, then after that it would be linked with branches of different accumulated figures towards individuality stages. The earth and its inhabitants would be the stage with the highest variety of detailed accumulated figures. In the Holly Quran there are a number of verses that indicate how the Earth inhabitants were created; some of which discovered by scientific researches later on. Generally speaking Darwin theory is somewhat consistent with some of the creation's steps of the earth entities though some Muslims deny that. In verses number 17 and 18 of Nuh Sura which translated as *"And Allah germinated you from earth like plants"* and *"Then he will return you into it and will bring you out again"*. The Islamic religion professionals interpreted the first verse to mean germination from earth like plants; but according to Hag Hammed, a Sudanese author, the Arabic statement of the first verse indicates that the Almighty Lord created the mankind from the earth a 'plant' not 'as plant', and for the other verse he interpreted it as 'He will return him (i.e the mankind) to earth again after death by pulling him out from earth in the day of resurrection, in contrast to the creation state (Haj Hammed). He meant to say that the plant is one of the creation stages of mankind. His argument is that the Arabic expressions in the two verses indicate a direct germination in the first verse versus emerging or pulling out from the earth in the second verse. This argument is supported by different verses in the Holly Quran, for example verse number 8, As-Sajdah Sura translated by ITANI, and the same verse translated by Yusuf. The first verse translated by ITANI as *"He who perfected everything He created and originated Man from clay"*. Yusuf's translation of this verse is: *"He began the creation of man from clay"*. All these interpretations, along with Darwin's theory, go in line with the accumulation process of

the accumulated figures. These figures would take different successive values for each creation after the formation of the Earth. For some details on the successive creation of mankind in stages, we present here examples of thirteen verses on the same subject. The thirteen verses indicate that the human being creation went through specific stages without specification directly the time space between each stage; but some Arabic language adverbs indicates the relative longevity of time between the subsequent different stages. The thirteen verses are as follows:

1. Verse number 7, As-Sajdah Sura: “*He began the creation of man from clay*” (Yusuf).
2. Verse number 12, Al-Mu’Minun Sura: “*We created man from **extract of clay***” (ITANI).
3. Verse number 11, As – Saffat: “*Enquire of them, Are they more difficult to create, or the others created?, We created them from **a sticky clay***” (ITANI)
4. Verse number 26, Al – Hijr Sura: “*We created Human being from clay, from **molded mud***”
5. Verse number 27, Al – Hijr Sura: “***And the Jinn** We created before **from piercing fire***” (ITANI)
6. Verse number 14, Ar – Rahman: “*He created man from **hard clay like bricks***” (ITANI).
7. Verse number 17, Nuh Sura “*And Allah germinated you **from earth like plants***”
8. Verse number 8, As-Sajdah Sura: “*Then made his reproduction from an extract of an **insignificant fluid***” (ITANI).
9. Verse number 77 Ya-Sin “*Not, man see that it is, We, Who created him **from sperm***” (Yusuf)
10. Verse number 13, Al-Mu’Minun Sura: “*Then, **We made to him a seed in a secure repository***” (ITANI).
11. Verse number 14, Al-Mu’Minun Sura: “*Then we **developed the seed into a clot**, then we **developed the clot into lump**, then we **developed the lumps into bones**; then we **closed the bones with flesh**; then we produced it into **other creature**. Most blessed in Allah the Best of Creators*” (ITANI).
12. Verse number 9, As-Sajdah Sura “*Then He **proportionate him and breast into him His spirit**, then He gave you **the hearing the seining and the brain** ---“ (ITANI).*
13. Verse number 5 from Al-hajj Sura translated: “*Oh people if you are in doubt about the Resurrection We created you **from dust**, then **from a small drop**, then from **a clinging clot**, then **from a lump of flesh**, partly **developed** and partly **undeveloped**; In order to clarify things for you; And **We settle in womb** whatever we will for a designated term, and then We bring you out as **infants**, until you reach your **full strength**; And some of you will **pass away** and some of you **will be returned to the vilest age** so that he may not know, after having known --- “ (ITANI).*

We present a summary of illustration of these stages as follows:

1. Verse 1 in the list indicates the starting of creation of human beings in the earth stage to be from clay or dust according to different translations.
2. Verses 2, 3, 4, 5 and 6 indicate the process of creation through extract of clay up to sticky type clay; and clay specified as molded mud or hard clay like bricks, in contrast to Jinn who were created before man from piercing fire.
3. Verse 7 indicates transformation of creation from clay and its different types to plant; from the sticky type of clay, molded mud or hard clay like bricks, to plant.

4. Verses 8, 9, 10, 11 and 12 indicate the transformation from plant to sperm through semen into the womb, where completed human being is developed in different stages by provision of hearing, seeing, and the brain, etcetera. In this stage the creation of human being diverted from plant to mankind characteristic.
5. Finally verse 13 is a summary of previous stages before birth, plus transformation to pro birth stages, which include the development of child growing through ages; some of them would reach his full strength; some of them would pass away and some of them would be returned to the vilest age.

Each individual who would grow through age would have a unique accumulated figure changing by time due to addition of personal deeds up to the death, after which it continues changing as far as the universe expands, with the same common values from its origin at the Big Bang.

So, the differentials in creation above earth would start by different types of clay, and go through different branches towards individuality represented by accumulated figures locations and decreasing rates of growth of branches of accumulated figures. In this respect the accumulation figures rate of growth values would be smaller and smaller down to the current identification of any individual creature in the world. Accordingly, any creation in the earth would have individual identity. At this point a human being would acquire a single specific identification of accumulated figure. We could not estimate individuality accumulated figures for this period because first, no information was available in this regard; second, clearly, it is impossible to assign accumulated figures for each inhabitant in this stage. All human beings who would grow through age would have a unique accumulated figure changing by space-time due to addition of personal deeds up to the death, after which it would continue changing as far as the universe expands; most likely to be with decreasing rates of growth of accumulated figures with the same common values from its origin at the beginning of the Big Bang. We note here that there was a divergence of the path of creation on earth before the plant species. As shown in verses number 4 and 5 in the list above before the creation of human being from mud the Almighty Allah created the Jinn from piercing fire, which means that the Jinn share the species of human being before the mud and plant species. According to our accumulated figure all creatures in the universe were from one source which is the accumulated figure at the infinitesimal zero time. When we say the origin of the incident's location we mean the smallest attainable location before reaching the infinitesimal zero. We did not find in the Holy Quran form which species of plant was the species of human being as indicated in the mud species; but for animal species the divergence of human being from other living creatures was from extract of an insignificant fluid to sperm as indicated in verses number 8 and 9 in the list above. We note here also that all the accumulated figures we assigned for different incidents were calculated according the auxiliary information from the literature; in addition to that there are gaps of information, which would make these figures liable to change even if the auxiliary information were correct. Finally at the current stage in the earth, after death, the individual properties would be added by different properties branched from bone type, and the whole universe would expand to the starting point of the contraction

At the end of the Earth Inhabitants stage, we would like to commend on some of Hawkins's questions in this regard, saying that: first: 'It would be very difficult to explain why the universe should have begun in just this way, except as the act of a God who intended to create beings like us'; second: 'When one considers cosmology, one has to take into account the selection principle

that we live in a region of the universe that is suitable for intelligent life'; third: 'Suppose, on the other hand, that the initial state of the universe had to be chosen extremely carefully to lead to something like what we see around us; then the universe would be unlikely to contain any region in which life would appear'. A typical answer to these questions is indicated in different verses in the Quran, with typical justifications. For the first question the following 4 verses are examples of answers and justifications:

1. Verse number 97 Al-A'nam Sura: *"And it is He who created the stars for you, that you may be guided by them in the darkness of land and sea"*.
2. Verse number 5 Yunus Sura: *"It is He who made the sun radiant, and the moon a light, and determined phases for it, that you may know the number of years and the calculation"*.
3. Verse number 47 Al-forqan Sura: *"And It is He who made the night covering for you, and sleep for rest, and He made the day a revival"*

Verse number 15 Al Mulk Sura: *"It is He who made the Earth manageable for you, so travel its regions, and eat from His provisions. To Him is the resurgence"*

In Verse number 115, Al – Mu'Minun Sura, the Almighty Allah asked mankind whether they think that He created them in vain and they will not be returned to Him *"Did you think that we created you in vain, and that to Us you will not be returned?"*. What comes in these verses is a complete answer to the question about the objectives of creation of earth's inhabitants. However, this does not mean that it is unlikely for the universe to contain any region in which life would appear, as indicated by Hawkins; the door is open for astronomy scientists to do search for that.

3.4 Individuality Characteristics

During the expansion of the universe, the number of the two dimensions of the accumulated figures in space-time (the location and time) would increase spherically and symmetrically from two at the beginning of the expansion to multiples of two up the formation of types; then the symmetrical phenomenon would break down gradually from types up to the life in earth stage where individuality would increase dramatically with different branches of accumulated figures for different species including mankind as we mentioned above. Eventually the multiplication of the two dimensions would also increase. If we take human beings as example the natural identification properties such as fingerprint, which is well known, in addition to other prints that indicated directly or indirectly in the Holy Quran could be represented by individual accumulated figures. The other print types indicated in the Holy Quran are color-print, tongue-print and smell print. The color and tongue prints indicated in verse 22, Sura Al-Rum translated as *"And of His signs is the creation of the heavens and the earth and the **diversity of your languages and colors**. In this are signs for those who know"*; what translated here as language should be 'tongue' according to the Arabic word in the verse. The smell-print is indirectly indicated in verse number 94, Yusuf Sura, where the Prophet Jacob said to his people that he had sensed the smell of Yusuf, translated as *"As the caravan set out their father said 'I **sense** the presence of Joseph though you think I am senile'"*. There are three points in this verse; first, the word translated as sense is actually smell according to the Arabic word in the verse; second, the Prophet Joseph was not onboard the caravan when it set out, but his shirt was there according to Joseph message in verse number 93 in the same Sura translated as *"Take this shirt of mine and lay it over my father's face and he will recover his sight--"*; third, the expression 'As the caravan

set out’ in the verse indicates that the smell-print would be recognized only before specific distance or at specific situation. These multiple individual dimensions in the earth would provide freedom to human beings and other living creatures to communicate face to face without imaginary travelling through different locations in the universe, to share different actions, as reported by Hawking for an example in his paper. For human being this stage would start its development when the child would be in the womb of his mother, after the provision of his specific properties of life with which he would exercise the different natural activities. The properties of the individual accumulated figures of life in space-time would be the same for some individuals, for example the four blood groups A, B, AB and O; other inherited properties might have the same or close accumulated figures for twins, brothers, sisters or other close relatives. The accumulated figures for old people would change due to old age properties with different individual accumulated figures. To go deeper to the smallest unit of human being, a cell, which includes DNA cells, its accumulated figures branches would go down to relate families through inheritance process. Finally the total sum of the individual accumulated figures would have more differences according to the socioeconomics and religious practices. After death the human accumulated figures would change without violation of the individuality situation; for example to bone type including the individual properties. On the long run of the expansion new generation of human being species in the world would be developed by upgrading individuality properties, for example with more intelligence properties than the previous generations, as expected by Sudanese Islamic thinker Taha. For other spices, individual accumulated characters, and hence individual dimensions of accumulated figures would also be assigned in space-time according to the verses number 27 and number 28, Fatter Sura in the Holly Quran translated as: “*Have you not seen that Allah sends down waters from the sky?, with it We produce **fruits of various colors**. And in the **mountains are streaks white and red varying in their hue – and pitch black**”, and “*Likewise **human beings, animals and livestock come in various colors**. From among His servants the learners fear Allah. Allah is Almighty oft-forgiving*”*

At the point where the contraction would start downwards the universe expansion would have being aligning with infinity part, which encompasses the expansion area. As the center of infinity could be anywhere through the infinity area, then this point of conjunction could be one of the centers, and all accumulated figures information could be cached in infinity. This situation expressed in the Holly Quran by indicating that the Almighty Allah encompasses everything in knowledge as translated in the verse number 12, Alta-lag Sura, “*Allah is He Who created seven heavens, and the like of earth. The command descends through them, so that you may know that Allah is cable of everything and that Allah encompasses everything in knowledge*” (ITANI). So a copy of the accumulated figures of the human deeds would be cached in infinity and would be shown to their individual owners in the day of recompense in registered numeric books as came in the verses number 7, 8 and 9 in Al-Mutaffifin Sura for those with bad records, translated as: “*-- The records of the wicked is in Sijjeen*”, “*but how do you know what Sijjeen is*”, “*A numerical book*”; and for righteous’ records the verses number 18, 19 and 20, in the same Sura: “*--- The records of the righteous is in Iiyyeen*”, “*but how do you know what Iiyyeen is*”, “*A numerical book*”. We note here that our accumulated figures simulate the numerical books. Accordingly, the contraction arrows would exclude these books on the way towards the earth stage without violating the second law of thermodynamics. At the point where the contraction about to reach the earth stage, the inhabitants of the earth would witness a smoke in the sky as mentioned in the verse number 10, Ad-dukhan Sura translated as “*So watch out for the Day when the sky produces*

a visible smoke". Other verses expressing this day in the Holy Quran in at-Takwir Sura verses number 1, 2, and 3 translated as: *"When the sun is rolled up", "When the stars are dimmed", and "When the mountains are set in motion"*. According to the Holy Quran these verses indicate that the earth without living inhabitants was formed before the galaxies as indicated in the verse mentioned above. This stage represents also the end of the earth's life and the day of resurrection according to the verses number 1 and 2 in Al-hajj Sura translated as: verse number 1, *"Oh people, be conscious with your Lord. The quaking of the Hour is a tremendous thing"* and verse number 2, *"On the day when you see it: Every nursed mother will discard her infant, and every pregnant woman will abort her load, and you will see the people drunk, even though they are not drunk-but the punishment of Allah is severe."* In this day the deeds of those who were still alive would also be registered in the book; and the universe would continue its contraction except these records, which stored in infinity as at the beginning of contraction, and with the same accumulated figures. The contraction would continue downwards to the beginning of expansion; then towards the virtual negative expansion. When it would reach the virtual life stage everyone would find his registered book. This situation is expressed in the Holy Quran by the following verses as translated by ITANI:

- ❖ Verse number 12, YA-SEEN Sura: *"It is We who revive the dead; and We write down what they have forwarded and their traces. We have tallied all things in a Clear Record"*
- ❖ Verse number 13, al-Isra Sura: *"For every person WE have attached his fate to his neck. And on the day of Resurrection We bring out for him a book which he will find spread open"*
- ❖ Verses number 7, 8 and 9, Al-Inshiqaq Sura:
 - *"As for him who is given his book on his right hand"; "He will have an easy settlement"; "And will return to his family delighted"*.
- ❖ Verses number 10, 11 and 12, Al-Inshiqaq Sura:
 - *"But as for him who is given his book behind his back"; "He will call for death"; "And will enter the Blaze"*

We note here that the difference of time between the day of resurrection and the day of recompense might be very small according to the divine time, as came in the verse number 13, Al-Isra Sura, which indicates that the deeds' book would be received in the day of resurrection. The verse is translated as:

- ❖ *"For every person We attached his fate to his neck. And on the day of resurrection, We will bring out for him a book, which he will find spread open"*

So, every one of the human beings would receive his book in this stage. As for the other individual creatures in this stage would be gathered to the Lord as indicated in the following Verse number 38, al-An'am Sura:

- ❖ *"There is no animal in land, nor a bird, flying with its wings, but are communities like you. We neglected nothing in the Scripture. Then to their Lord they will be gathered"*

3.5 The Theory of Everything

In this part we are going to simulate between the theory of everything and the findings of this paper. The Theory of everything by Hawking aimed to combine the four types of energies; the gravitational energy, the electromagnetic energy and the nuclear strong and weak energies. Generally speaking what came in the theory of everything goes online with the accumulated figures process. The world-sheet wave that includes both the location and time in this theory simulates the process of expansion in our accumulated figures, which consists of the accumulated figures representing the locations and the rates of increase of accumulation figures representing time. The most two important participations of our accumulated figures to this theory; first, it provides measurements for the locations' contents and its growth, which was missed in the theory; second, these measurements could be used by way or other to link the gravitational forces with the electromagnetic and the strong & weak energies combined in the partial Grand Unified Theories. We note here that as we reported in the Big Bang part in the Print Section, these four types of energies were indicated in the Holly Quran in verse number 10, Fussilat Sura, translated as: *"He placed stabilizers over it; and blessed it; and planned its provisions in four days, equally to the seekers"*. As mentioned by Hawking, the general relativity theory, which is the partial theory of the gravitational force, is a classical theory, and not incorporates with the uncertainty principle of quantum mechanics whereas the other three forces depend on quantum mechanics. The uncertainty principle formulated by Werner Heisenberg indicates that the precise position of pairs of physical properties cannot be known simultaneously; the more accurately one property is known the less accurately the other can be known, (wiki/ Uncertainty). So it is necessary first to combine general relativity with the uncertainty principle. The problem encountered, according to Hawking, was that in the uncertainty principle an infinite energy would be created by the gravitational force, which would curve the universe to be completely self-contained; consequently his theory would be invalid. As for our theoretical concept in this respect, the universe is already self-contained and all the four energies would start developing according to these figures without violation of the uncertainty principle. In addition to that there is a verse in the Holly Quran indicates that there is relationship between these types of energies; the verses number 71 and 72, translated as *"Have you seen the fire that you kindle"*, *"Is it you who produce its tree or are We the producer"*. The phrase 'its tree' here indicates that there are relationships between these energies linked together in different branches like a tree.

Through his paper, Hawkins asked different questions related to this issue; we are going to respond here to some of these queries according to our concept in this respect. The first question he asked: 'Why do we remember the past, but not the future?'; an answer to this question from our accumulated figures process is that, for near past, we can remember what would happen there because they have been registered by the accumulated figures through the expansion of the universe. However for quite long past, incidents unlikely to be remembered; but with our accumulated figures process of space-time we could access any information from the past if we had the means of travelling back opposite to the universe expansion to the required location. In the current life time for each incident the current accumulated figure in space-time would be added to its past accumulated figures, whereas in the future these locations not yet included by our current accumulated figures, even if we have the required means to travel there. However if we had those means of travelling in the future this would be for discovery rather than remembrance. This is because we have not yet new incidents there to remember. Nevertheless, according to the Holly Quran it is possible to travel there for information but under certain

conditions. The world has witnessed space-travelling nowadays; and mankind could go further than that if these conditions had been fulfilled, according to the verse number 33, Ar-Rahman Sura translated as “*O society of jinn and humans! If you can pass through the bounds of heavens and earth go ahead and pass. But you will not pass except with authorization*”. Muslim scientists interpreted authorization as the scientific knowledge. In fact the nearest meaning to the Arabic word translated as authorization (SULTAN) is a power, which is closer to scientific knowledge. The second question, he asked: “If the universe is really completely self-contained, having no boundary or edge, it would be neither created nor destroyed. It would simply be. What place then for a creator?”; our answer is that, as we discussed earlier in the first section, the world is self contained; and according to our definition of infinity concept since any incident would be anywhere in infinity then the creator would be anywhere in infinity.

3.6 The Black Holes & Singularity

The black hole was reported the first time in 1969 by the American scientist John Wheeler. It is an astronomical body so compacted that its gravity prevents anything in from escaping out. And Singularity in space-time is a condition in which gravity is very intensive. So, there is a relationship between the two concepts. What concerns us here is that whether the origin of the Big Bang is singularity, and whether the proceeding stages of the expansion of the universe emerged from singularities; in other words from black holes. Most of the papers we found in the literature indicated that the black holes were the mothers of the proceeding astronauts; for example Daniel reported in his paper that “SMBH in the center of our galaxy is the mother of our galaxy”, which indicates that our galaxy is the mother of the earth, 8. However with respect to the Holly Quran as indicated earlier our earth emerged from the galaxies either from its smoke or before the smoke had been formed to galaxies. According to our infinity concept, as mentioned earlier, the lowest infinitesimal scale of time obtained would start from $(X1095+n*1000)$.Zeptoseconds with accumulated figures equal $1.62428/E-1304^{n*1000}$ where n stands for one and over; and according to the least obtainable scale of time, $X95$.Zeptosecond, the lowest accumulated figure obtained is $1.62591E-307$ for its first subunit; therefore; so, all incidents of the Big Bang would start from infinitesimal zero at any place in infinity, or from the lowest attainable singularity in the normal universe, relative to the normal mathematical zero. The rate of change of accumulated figures for this system would be the same in all directions up to some stage; then the diversity would increase at the beginning of life at earth where diversities of accumulated figure values would start due to individual properties at this stage (See Figure SA.2). The period of space-time during which the accumulated figures collapse is taken here to be each month because the only scale of local time whose number is revealed in the Holly Quran is the month according to the verse number 36 At -Tuba Sura; which translated as “*The number of months, according to Allah, is twelve months – in the decree of Allah since the day when He created the heavens and the earth----*”. Accordingly, the space-time accumulated figures would reach its maximum at the last month’s day; then it would collapse to the beginning of first day’s figure of the next month, where it represents a black hole. Figure SA.3 clarifies this situation. We note here that we put the months’ accumulated figures of lunar months’ figures because the number of months cited from the verse of the Holly Quran concerned with lunar months specified by Hijri months’ names; and these accumulated figures calculated from previous research on the construction of Hijri calendar by the author. So, the higher the month’s accumulated figure in Figure SA.3, the higher the rate of its expansion. The highest total

accumulated figure of the month would be followed by the smallest one in the size of the days' accumulated figures at the beginning of the following month, which simulates the collapse of astronaut particles due to gravitational attractive of its intensive mass. After the formation of the black hole, as reported in the literature, stars would use all their hydrogen and helium and they would expose to become red supergiant, and then explode forming a supernova. The equivalence of the accumulated figures in this regard is that when months' and days' accumulated figures would increase and become more loaded with accumulated figures it would restart the beginning of the next month accumulated figures from singularity at the smallest scale of days' accumulated figures carrying with its previous load, which enlarged the next month accumulated figure as if it exploded to supernova. It is interesting to mention here that even the black hole is indicated in three verses from the Holly Quran; the verse number 15 and 16 in At - Takwir Sura, and the verse number 30, Al-anbiya Sura. The first two verses translated by ITANI as: "*I swear by the galaxies*"; "*Precisely running their courses*". ITANI translation in this respect might be at time when the knowledge of black holes had not been established, and that is why he translated the first verse as the Almighty Allah swore by the *galaxies* which are *precisely running their course*. The Arabic word in the first verse (ALKHNNAS) does not indicate the type of the astronaut as translated by ITANI (galaxies); it indicates the behavior of the astronaut; it is well known that it is an adjective and not noun; its meaning is close to past tense of retreat (retreated); and the phrase that he translated as *Precisely running their courses* its Arabic words is ALJWAR EL KONNAS; it is well known that ALJWAR in Arabic means the neighbors; and EL KONNAS derived from the word KANAS, which means to clean. The English translation of EL KONNAS is somewhat not clear; but when we searched in Arabic English Dictionary we found that the word KANAS, means 'to soften', (<https://translate>); and the meaning of the word soften in English is to weaken (cambridge.org). So, the proper translation of these two verses is that the Almighty Allah swore by the 'softened' unobservable galaxies which wash everything around it. With respect to the third verse translated as "*Do the disbelievers not see that the heavens and the earth were one mass and we tore them apart? And We made from water every living thing. Will they not believe?*" This verse indicates that the black hole is the mother of our galaxy, as came in scientific discoveries. The Almighty Allah asked the disbelievers whether they do not acknowledge that the earth and heaven were one mass (Black hole) and He exploded them; and made water the sign of life, as discovered later by scientific researches. Moreover, it is indicated in the Holly Quran that the Almighty Allah created above us seven strong heavens in layers; the verse number 12, An-Naba Sura: "*And build above you seven strong ones*" and verse numb 14, Nuh 15, "*Do you not realize that Allah created seven heavens in layers?*". The seven strong heavens, in other words seven universes, could be interpreted as 'seven black holes'; and in layers indicates that they have not been exploded'. These seven strong heavens would continue to be layered up to the day of resurrection as indicated in verse number 67, az-Zumar Sura, translated as "*They have not esteemed Allah as He ought to be esteemed. The entire earth would be in His grip in the day of resurrection, and the heavens will be folded in His right. Immaculate is He and Transcendent He is beyond the associations they make*". Even our universe in the contraction stage would be converted to strong heaven (Black hole) as it had been before according to the verse number 104, al-Anbiya Sura, translated as "*On the day when We fold the heaven, like the folding of a book, just as We began the first creation We will repeat it*".

Figure SA.2. Starting of Incidents from the Center of Infinity at the Early Stages of Expansion

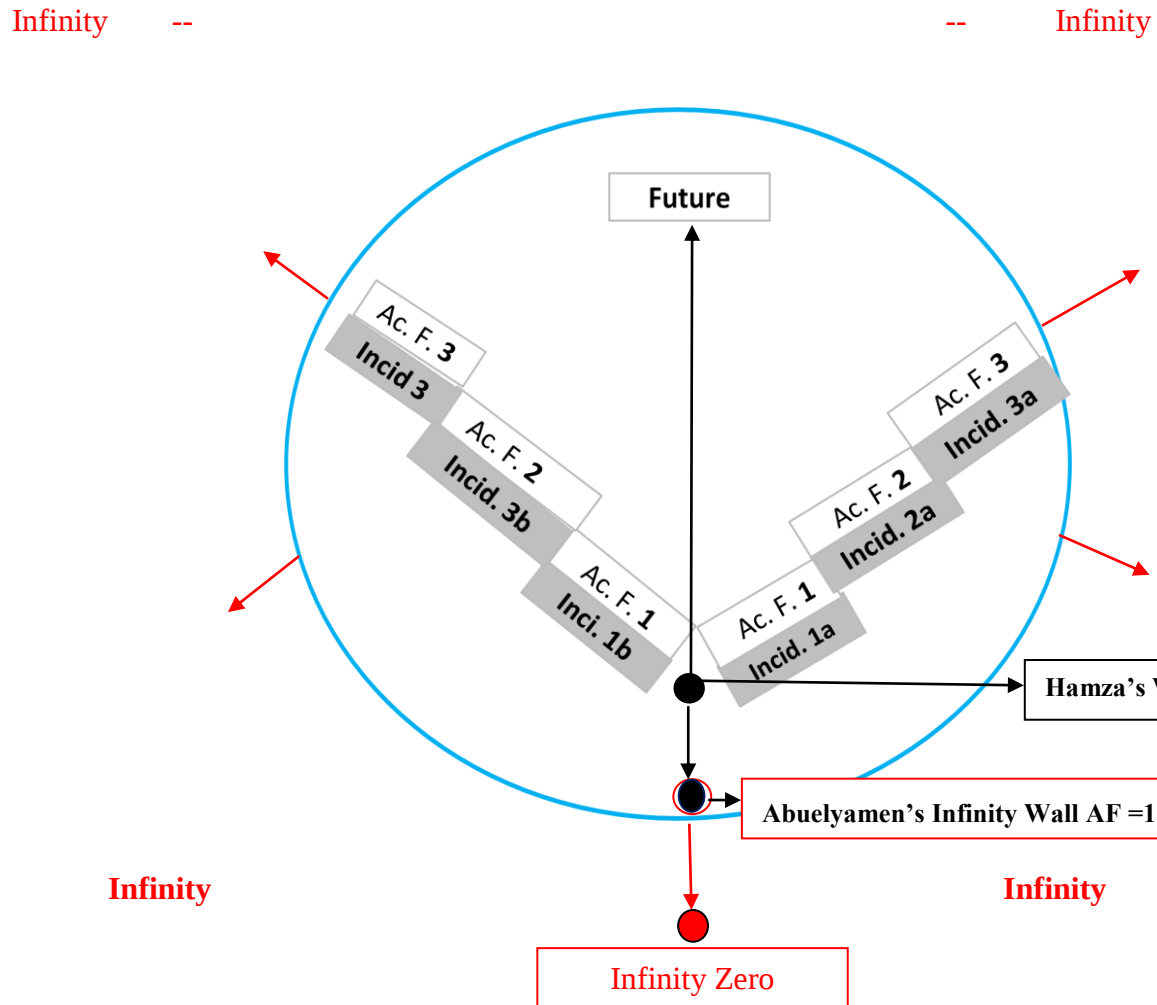
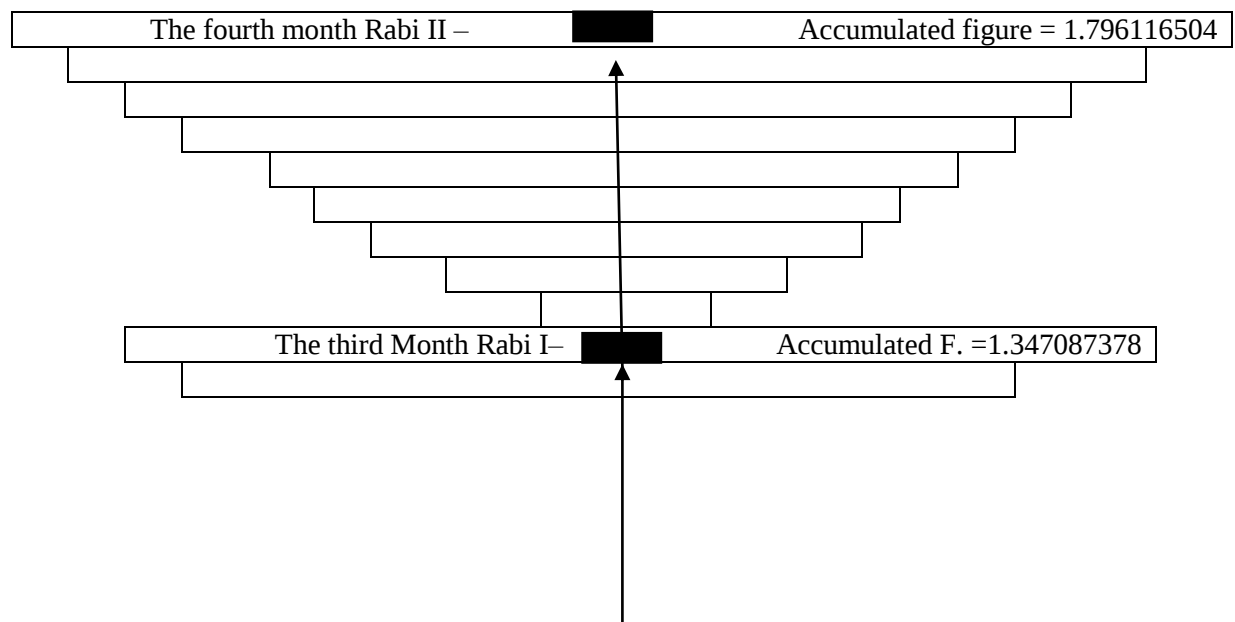
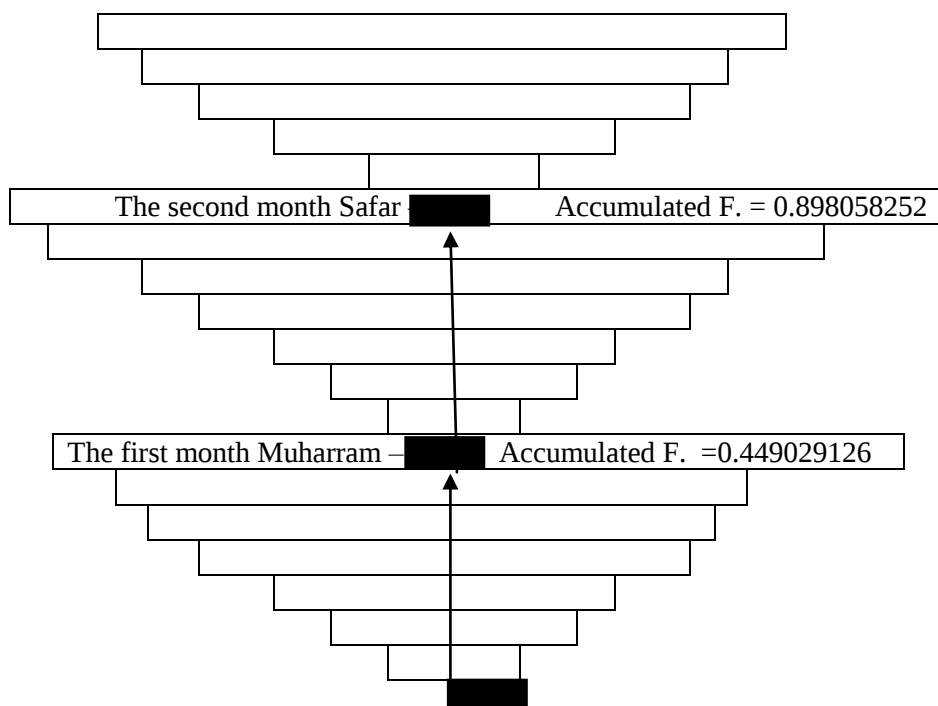


Figure SA.3: The Collapse of Months' Accumulated Figures into Singularity before Starting the New Day of the following Month



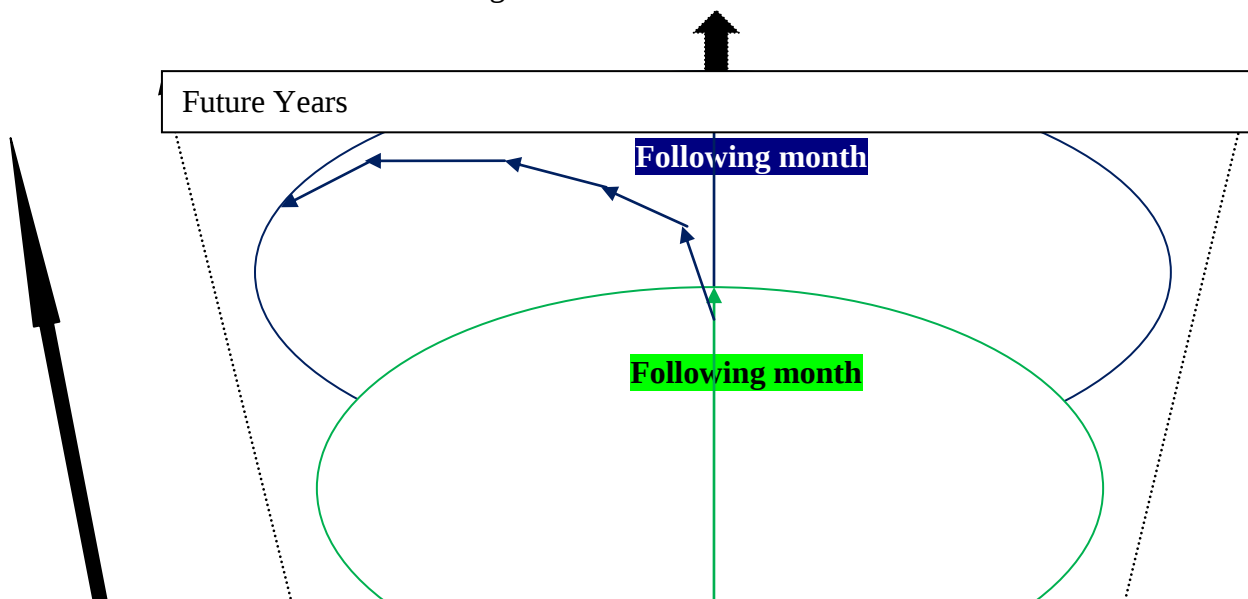


3.7 The Universe Curvature

The curvature as such in geometrical issues is measured by an indicator denoted by Lambda; when Lambda equal zero, this means the geometrical shape is flat; when it equals + 1 this means that it is positive curvature and when equals -1, this means that it is negative curvature. As for the universe an approximate value of Lambda was found to be 1 ± 0.02 , (wikipedia.org/wiki). It is reported in the literature that the curvature of the universe is negative due to the graviton forces in the dark matter, (You Tube). With respect to our accumulated figures, Figure SA.5 illustrates how the universe curvature is constituted. The figure presents a sample unit of the universe from its center, which represents the whole directions in a spherical field. The track of the universe expansion in the figure consists of accumulation of months' accumulated figures, because as indicated earlier, the only time unit mentioned in the Holly Quran by number is the month, as indicated in the verse number 36, Al-Taw-bah Sura translated as "*The number of months according to Allah is twelve months-in the Decree of Allah since the Day He created the heavens and the earth. ---*"; and 12 of it sums to a year, according to the solar and lunar years. For other upper scales of time, 10 years equals one decade; and 10 decades sums to one century; and 10 centuries sums to one millennium. Although the number of days per month not indicated directly in the Holly Quran it is defined by the appearance of the crescent before the beginning of the next day; so the starting point from any incident in space time is taken to be the least fraction of day's time obtainable for every incident. As shown in the figure, each month starts from the beginning of the year with accumulated figures of the smallest fractions of time of the first day of the first month up to the last unit of the month's day; then the following month accumulated figures would be the sum of accumulated figures of all days, and the accumulated figures for a year would be the sum of accumulated figures of months and so on. The circles encompass the details of the days' space-time represent the accumulated figure of the month. The figure shows

that, the accumulated figures of the months and years would increase by space-time due to the inflation in the accumulated figures of these scales. All the expansion arrows, whether vertical or curved would go to infinity up to the points of the beginning of the contraction, which had been known by the Almighty Allah according to the verse number 12, At - Talaq Sura in the Holly Quran translated as *“Allah is He Who created seven heavens, and the like of earth. The command descent through them so that you may know that Allah is capable of everything and that Allah encompasses everything in knowledge”*. At the contraction point the space-time, as mentioned earlier, would reverse towards the Big Bang direction to its beginning point and would proceed upwards with the same absolute values of accumulated figures, but with negative signs, to constitute the virtual expansion; so the curvature of the arrows at the bottom would continue after the earth’s virtual stage to infinity. Hence, the whole universe would be self contained in infinity, and with negative curvature at all sides. Figure SD.6 explains this situation. The general shape of this phenomena looks like trees of accumulated figures with very small leg equals $1.62591\text{E}-307$ accumulated figure as represented in Figure SA.7.

Figure SA.5: The universe curvature



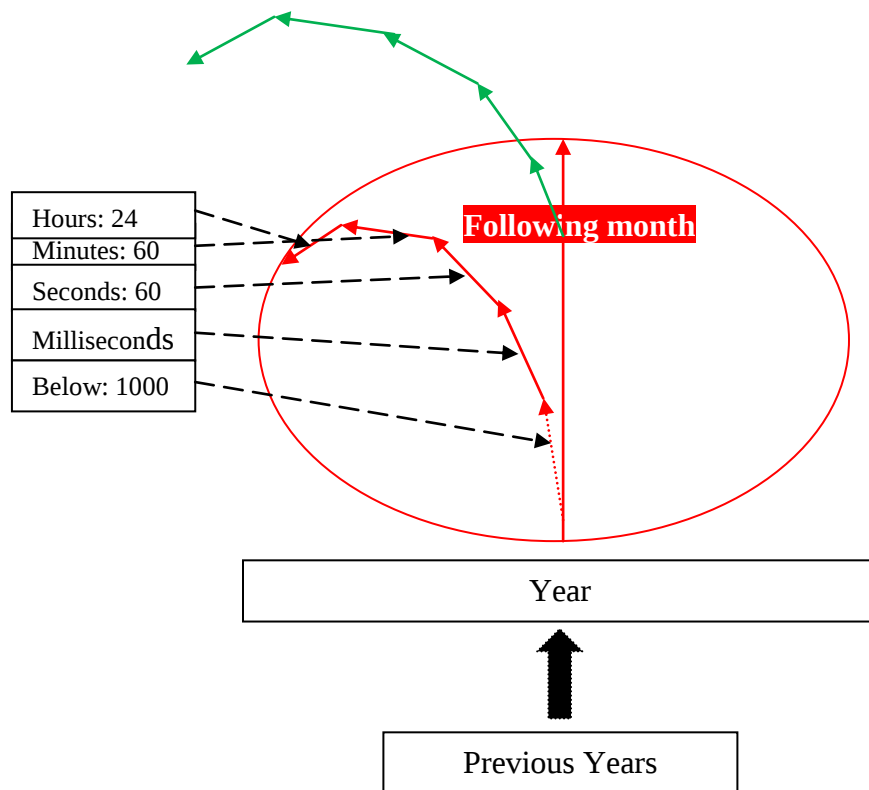


Figure SA.6: Representation of the Self Contained Universe in infinity

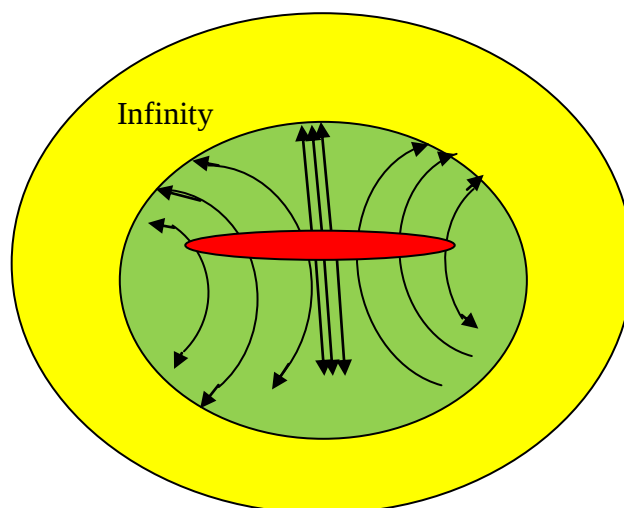
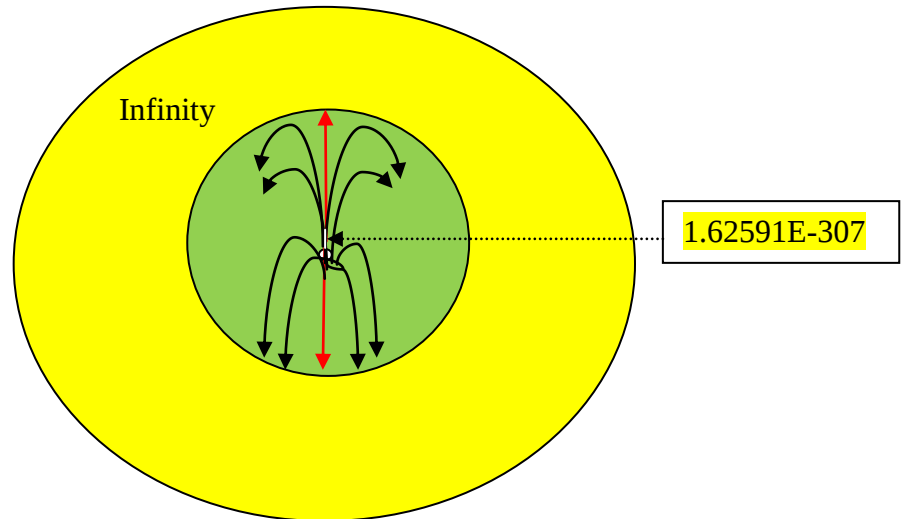


Figure SA.7 Representation of the Self Contained Universe in Infinity likeness the Circulated Trees



3.9 Summary and Conclusions

- A new understanding of space-time with mathematical measurements have been developed and simulated to current theories, which would give chances to link these measurements with current experimental measurements for more scientific information.
- Discovered scientific facts had been revealed in the Holly Quran before 14 centuries ago, and there are indicators for undiscovered facts in the Holly Quran, which would open door for more researches in this respect.
- The relationship between the research findings, the scientific findings and the other related indicators from the Holly Quran found to be more or less consistent, which provide a support to consider these findings for more researches.
- A virtual and extended expansion theories on the universe have been developed, which would initiate more researches in this respect.
- Theoretical quantum mathematics concept has been developed, which could be linked to quantum physics, especially in cosmologic studies.

- New infinity concept has been developed, which might solve the paradox of the involvement of scientific theories with infinity.
- New concept of dark matter has been developed, which would add more lights to the current understanding of this unsolved phenomenon.
- The linkage between the dark matter and the cosmological constant is more clarified by the new space-time concept.
- New natural scientific constants have been developed, which could be compared to the current ideal constants for more scientific information.

References

1. Haj Hamed, Mohamed Abuelgasim, The second International Islamic Ideology
2. wiki/ Uncertainty <https://en.Wikipedia.org/wiki/ Uncertainty> _ Principle
3. [https://translate](https://translate.google.com.eg/?) _ google.com.eg/?
4. cambredg.org, <https://dictionary.cambredg.org/>
5. wikipedia.org/wiki/[https://en.wikipedia.org/wiki/ Shape_of the_universe](https://en.wikipedia.org/wiki/ Shape_of_the_universe) # Possible_shapes_of_the universe
6. You Tube – <https://youtube.com/shorts/15deLpyP9uc>)