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Salih Hamza Abuelyamen Abuelyamen

salihabuelyamen@yahoo.co.uk

Retired Private Researcher

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New Concept of Space-time with Mathematical Measurements derived from the Holy Quran

Salih Hamza Abuelyamen
Retired, interdisciplinary private researcher, BSC Mathematics & Physics, MA Demography
Email: salihabuelyamen@yahoo.co.uk

Section 1: Print Section

1.1 Summary

The main objective of this research is to present new concept of space-time through the expansion of the universe, with mathematical measurements (accumulated figures), based on a hypothesis derived from the Holy Quran, verse number 25 Alkahf Sura translated as "*They stayed in their Cave Three hundred years, and Add nine*" (ITANI). The story behind this holy verse came in verses number 9, 10, 11 and 12 in the same Sura about righteous youths escaped from their evil governor to a cave where they stayed there for a number of years indicated in this verse. We interpreted this verse in our previous paper on the construction of mathematical Hijri calendar as every 309 lunar years equal exactly 300 solar years, without any decimal point, and proved it in that paper, (Abuelyamen). In another research paper we used the same methodology to construct mathematical solar calendar. From the outcomes of the second paper we constructed the space-time measurements in this paper with the same methodology as for the two papers (Abuelyamen). The main findings of this research are the production of mathematical measurements for space-time, from the beginning of the least attainable scale of time to different stages of the expansion of the universe. Other three important findings are: first, identification of theoretical scale of time and length that is far smaller than Planck's time and length, the famous known lowest wall, (wiki/Planck-time); second, development of some theories which would help in solving problems encountered with other physical theories specially the theory of everything; third, from the simulation we drew between our findings and other related verses in the Holly Quran, as well as scientific findings in this respect, we found that they are more or less consistent, a case which supports our findings.

1.1.1. Summary of the Methodology

The Reference's Date/time we assigned for this work was 8/6/2024, 18:18:29 GMT, the starting date of this research, relative to the last total eclipse date/time, 8/4/2024–18:18:29 GMT, which preceded this date by two months. According to our Mathematical Natural Solar Calendar date, the eclipse date was before the Gregorian date and time by two days, so the reference's date/time according to the eclipse and the Mathematical Solar Calendar date would be 6/4/2024 –18:18:29. Because no information was available on the eclipse time after the second's scale of time, we started our

measurements from the lowest attained scale of time from the origin of the reference's date/time at the beginning of the Big Band up to millisecond. As for the scope of scales of time, because the lowest defined scale is Zeptoseconds we defined scales lower than Zeptoseconds as NX. Zeptoseconds where N stands for 1 and over.

The basic operations used in the methodology are: first, to break down the monthly standard accumulated figure that obtained from the second previous paper to the smallest possible scale of time; second, to accumulate the accumulated figure of the lowest scale of date/time in ascending order for different upper scales.

1.1.2. Summary of results

The first observation in results is that the general structure of these figures simulates the Big Bang theory of the expansion of the universe. We present hear a sample of these figures for 3 groups of periods from the starting of the Big Bang up to the reference's date/time as follows:

> Groups 1: From the zero point of space-time to the first smallest attained scale of time at the first day of reference time's location (X95.Zeptoseconds), to the 1000th subunit of this scale.
> Group 2: From the first millisecond's subunit to the 1000th of milliseconds' subunit.
> Group 3: From the first second of the reference date/time to the reference time millennium date.

Figure 1, Figure 2, and Table 1 at the bottom of this part present the accumulated figures of those periods. As shown in Figure 1, in group 1, the smallest attained scale of time in space-time after zero found to be X95.Zeptosecond, with its first accumulated figure subunit equals 1.62591E-307; and in group 2, the millisecond scales of time ranges between 1.61128E-07 and 1.62591E-07 accumulated figures. In group 3 the upper scales of time, from seconds to millennium scale their accumulated figures range between 4.715140E-06 for the second scale up to 20250 for millennium scale.

1.3. Discussion

1.3.1. Introduction

In this part of the section we are going to discuss some of the outcomes of this paper and its relationships with other verses in the Holly Quran and current researches findings in this respect. Other outcomes would be discussed in the online Discussion Supplementary Section. The important two discoveries in our first research in this field that encouraged us to go ahead with this research are: first, the précised relationships between 309 lunar years and 300 solar years; second, the circular replication of time each 309 lunar years and 300 solar years. The major new finding in the research is the measurements of locations' contents and their rates of change by space-time through the expansion of the universe. Other findings were development of universal constants, compared to the present scientific constants. Finally a new theoretical concept was developed on the most controversial phenomenon in science (the dark matter). The findings of this paper support in general the theory of the Big Bang expansion and contraction of the universe, other outcomes in this regard included development of theories regarding the controversial issues in this theory, such as the singularity of the

beginning of the Big Bang and the situation before this point, the black holes and so on. The source in this regard was obtained from Hawking's paper, the Theory of Everything (Hawking).

1.3.2. The Concept of Infinity in Space-Time

We start the discussion of this section by the definition of the concept of infinity in space-time; this is because infinity is a major issue that not yet established to fit with singularities, dimensions and borders of the universe. In addition to that, some scientific theories stuck with the lack of justification validity when infinity is considered. The famous theory of infinity, 'The Sum over Histories Theory' developed by Feynman, which describes the history of path of particle from point A to point B probabilities of infinite number of paths, 5. But as reported by Hawking, for time a mathematical concept could be used to avoid the technical difficulties with Feynman's sum over histories. He added that "mathematically, imaginary time is real time expressed in imaginary numbers". Generally speaking, infinity is defined as something which is boundless, limitless or endless; in other words without dimension. On the other hand the definition of a dimension is that it is a real or imagined line that marks the edge or limit of something". So, the two definitions together encompass any real or imagined point. According to the mathematical theory, zero is the center of infinity in any location and it would take any place in infinity. On the base of the above definitions, we define infinity in space time as a spherical media continuously expanding, whose center could take place anywhere within it with imaginary properties, such as infinitesimal center, infinitesimal zero, infinitesimal dimensions… etcetera; all these properties would take place anywhere in this media. However, for the purpose of clarification we describe the space time phenomenon in the real part of infinity with real boundaries representing imaginary properties of infinity that would take place from anywhere within it.

1.3.3. The Big Bang

1.3.3.1 The Explosion, Expansion and Contraction

The first result of this research is that it supports the Big Bang Theory on the explosion and expansion and contraction of the universe, and provides measurements for it by the produced accumulated figures, starting from the lowest attainable fraction of accumulated figure before the explosion point, up to the millennium accumulated figure of reference's date/time. In the Summary of Presentation part we showed a sample of these figures for three groups of space-time across the universe expansion. The subsequent samples of accumulated figures towards higher scales of time, which include different aggregate scales of space time up to the millennium scale, were presented in the Table and Graphs Supplementary Section. The explosion and expansion issues in this respect was simulated by the accumulation process and by different verses from the Holly Quran, for example, with respect to explosion, the verse number 1, Alfajr Sura translated as -"*By the dawn and the 10 nights*", which means that the Almighty Allah swore by the dawn and the ten nights; Ismail in his book 'The Seven Heavens, in Arabic language translated "*The dawn*" to mean the 'explosion' (Ismail). In fact, the Arabic translation of the word 'dawn' has two meanings: one, the instant appearance of the sun in the morning; and the other, the explosion. So, according to Ismail, this verse interpreted to mean explosion, and he added that the ten nights refers to 10 types rather 10 days. He related this verse with other verses from the Holly Quran, for example, the verse 12, Fussilat Sura, translated as: "So *he completed them* ***as seven heavens in two days,*** *and He assigned to each universe its low; "And We decorated the lower universe with lamps and for protection"; "That is the design of Almighty the all knowing*". The Verse 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". The verse number 9, Fussilat Sura, translated as: "*Say, 'Do you reject the One who **created the earth in two days'?***". The verse number 4, Sajdah Sura translated as: "*Allah is He who **created the heavens and the earth and everything between them in six days**, and then established Himself on the throne…. "*. The 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*". What these verses indicate: First of all, to express the days by types itself goes online with the theory of space-time and with our accumulated figures as measurement of space-time. Second the clarification of Ismail's rationality of his classification of the 10 types mentioned in the above verses is as follows:

1. The creation of seven heavens in two days, interpenetrated as two statuses or types as follows:
    a. First, the lower universe, which decorated with lamps (stars) is the first type
    b. second, the other universes' skies, which were not decorated is the second type
2. The creation of earth in two days interpreted as the same two types of the heavens as illustrated in the verse above by saying '*the lik*e' (two types).
3. The creation of earth and the heavens in six days indicates the summation of all types of earths and heavens as follows:
    a. First, the earth type versus the heavens type (two types).
    b. Second, the lower sky type versus other upper ones type (two types).
    c. Third, our earth types versus other earths alike the upper heavens type (two types).
    d. Total (six types)
4. To complete it to be 10 types in the fifth verse, what was meant by planning the earth's provisions in four days, Ismail, interpreted it as the four types of forces, which are the forces that the theory of everything was meant to link between them, as we will see in the Theory of Everything part.

Ismail supported his interpretation by the verse number 82, Ya-Seen Sura in the Holly Quran translated as "*His command, when He wills a thing, is to say to it "Be", and it becomes to be*". So, He could have said to all these astronauts "Be", and they come to be.

With respect to expansion the verse number 47 ADH-Dhariyat Sura translated as "*We constructed the universe in power and we are expanding it*", indicated directly that the universe is expanding. According to the accumulated figures they would provide measurements for the expansion's locations and time by assigning specific accumulated figure for each incident in each location and its rate of growth through time. These figures would start with the smallest attainable accumulated figure for each incident, and would be accumulated spherically with the same value through the expansion path, from the starting point, up to the stage where individual properties would start and would break the spherical symmetry. This system would continue up to the stage of the earth life where living creatures would have individual accumulated figures. As for the contraction of the universe, when the expansion ceased as black hole at any point of infinity due to a specific load of accumulated figure, the universe would start contracting. According to our accumulated figures and our definition of infinity, the observable universe arrows could be directed backward down to its explosion point passing through the earth stage. The contraction stage is indicated in the Holly Quran by the verse number 104; Al-Anbiya Sura translated as "*On the day when We fold the heavens, like the folding of a book. Just **as We began the first creation we will repeat it** ---".* This would be done with the exception of socioeconomic and religious deeds' accumulated figures of dead human beings, and accumulated figures of other dead living creatures at the earth stage. With respect to individuality characteristics of human being's deeds and other creatures, according to our infinity properties definition that all infinity properties could start from anywhere in infinity, the accumulated figures of creatures with individual

properties and that of human being's deeds would be registered in infinity. For the human being properties these would be presented to mankind at the virtual expanding stage, which we are going to discuss in the following part. This case simulate what indicated in the Holly Quran that the deeds of human being and whatever they do would be kept in book, as came in the verse number 12, Ya-Seen Sura translated as "*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*".

1.3.4. The Pre Big Bang to the Earth Virtual Expansion Stages:

Before reaching the explosion point, as we indicated above, the contraction would pass through the earth's stage, where the accumulated figures of creatures with individual properties and that of human being's deeds of those who would die at this stage, would also be added to a book as for those at the beginning of contraction point; we are going to speak in detail about this stage in the Analysis Supplementary Section. According to our space-time process, after the contraction of the universe to the starting point of the Big Bang explosion, the universe would start expanding in the opposite direction with negative values of the same positive values of accumulated figures; so, we call this stage pre Big Bang expansion, which could also be called virtual universe expansion. The virtual universe would consist of negative accumulated figures expanding negatively upward in ascending order of the positive figures. Accordingly, at the earth virtual stage, which we call the earth's virtual life; all accumulated figures would be the same as that at the positive expansion excluding the added individual accumulated figures of human being's deeds and living creatures and which stored in infinity. According to our infinity properties definition, the deeds human accumulated figures would be linked to the virtual life stage for each individual and would be presented to him. The virtual expansion in this stage, simulates the day of recompense, which the Almighty Allah revealed in verse number 4, Yunus Sura, and verse number 94, Al-an' am Sura, translates as "*To Him is your return altogether" and* "*You have come to Us individually just as We created you the first time, leaving behind you everything We gave you* --". In this day the accommodation of those who are miserable would be in fire; and those who are happy in paradise as translated in the verse number 106: "*As for those who are miserable, they will be in the fire. They will have therein sighing and wailing*". The absolute accumulated figures in this life would be the same as the real life, which indicate the same features as the real life, but with different test, abundance and easy access to provision as revealed in verse number 25, Elbagara Sura: "*And give good news to those who believes and do righteous deeds, that they will have gardens beneath which rivers flow. Whenever they are provided with fruit there from as sustenance they will say 'This is what we were provided it before' and they will be given the like of it*"; 'the like of it' hear simulates the first life features represented by the positive accumulated figures versus the second life with the same features as the first life, but with different characteristics that had not being practiced in the first life. The period of this life as indicated in the Holly Quran for both believers and disbelievers would be as long as the period of the expansion of the universe, according to the flowing two verses from HUD Sura:

- 107: "*Remaining therein for as long as heavens and the earth endure, except as your Lord wills. Your Lord is doer whatever He wills*."
- 108: "*And as for those who are happy, they will be in paradise, remaining therein for as long as heavens and the earth endure except as your Lord wills – a reward without end*."

As for other individual living creatures their record would be gathered to the Almighty Allah as indicated in the verse number 38, al-An'am Sura translated as: "*There is no animal in the land not bird flying with its wings but are communities like you. We neglected nothing in the scripture. Then to their Lord they will be gathered"*

This is the last information from the Holly Quran on the fate of the universe; what will happen after that is not known either by science or from religious information. With respect to our phenomenon of the universe expansion we are going to explain that in the following part. More information about the individual properties would be presented in the individuality part in Section 3, the Analysis Supplementary Section

1.3.5. The End of Virtual Expansion Stage

As indicated above, the limit of the virtual expansion, or even that of the real expansion is unknown, neither from the verses in the Holly Quran nor from scientific theories. We have not found any verse about that in the Holly Quran, but there are diffident verses which indicate that the absolute knowledge is upon the Almighty Allah; and no one would know everything of the Almighty Allah's knowledge; for example the verse number 66, Ali – Imran Sura translated as "*Here you are – you argue about things you know, but why do you argue about things you do not know. Allah knows, and you do not know*". With respect to our accumulated figures process, there are different verses from the Holly Quran indicates that imaginary time as 'no time', for example, the verse number 117, Al-Baqara Sura, which we presented earlier, translated as "*Originator of the heavens and the earth. Whenever He decrees a thing He says to it 'Be' and it becomes*". So, in this regard we define here 'no time' as infinitesimal time, by which incidence would occur in 'no time'. This means that any action in the universe would be infinitesimal action as indicated in the Infinity Concept part; accordingly, the infinitely zero point at the beginning of the Big Bang, and the mathematical property of infinity that its center is anywhere in infinity prove that the universe is completely self content (see Figure 3); hence the creator would be anywhere in the universe and any action in the universe, would be done in no time by the will of the creator the Almighty Allah.

1.3.6. The Dark Matter and the Cosmological Constant

The dark matter is an invisible and hypothetical form of matter. The evidence of existing of dark matter came from the observation that all galaxies would fly apart Rather than rotate if they did not include large amount of matter, which predicted to be unseen matter (Daniel). Accordingly it was realized that space is not empty vacuum. The cosmological constant was introduced by Einstein in his general relativity theory to justify his proposition that the universe is static. He rejected it after realized that the universe is expanding; but later on it was approved to be exist. In 1990 astronauts discovered that universe not only expanding but accelerating in its expansion. With respect to our research, the cosmological constant is represented by the rate of growth of accumulated figures of set of constants staring from the daily rate of growth of accumulated figures for each month; then monthly rates of accumulated figures for each year; then yearly accumulated figures for each decade; centuries for each millennium and so on. This phenomenon indicates that the universe accelerates through space-time Figure 4 is a graphic representation of this phenomenon. As indicated in the figure both the accumulated figures and the groups of its rates of growth's constants would be accelerating. It is

reported in livescience.com web site that there is a link between the cosmological constant and the dark matter. However, the concept of dark matter is still subject to more researches. In this concern our accumulated figures fields constitute an abstract background for the universe irrespective of the existence of dark matter. As there is a link between the dark matter and the cosmological constant there might be also relation between these figures and the dark matter. Going again to the Holly Quran, there are two verses, which to our understanding indicate the existence of dark matter and explain some information about it; these are the verses number 45 and 46 in Al-Furqan Sura, translated as: "*Do you not see how your Lord extends the shadow? Had He willed; He could have made it still. And WE made the sun a pointer for it*" and the verse, "*Then We withdraw it towards us gradually*". Our interpretation to the first verse is that the expanding shadow stated in the verse is not the shadow of objects, which reflected by the sun's light; it is more likely to be the Dark matter. Our evidence for the interpretation of this verse is that; first, the observed shadow does not expand, but changes from long to short in different directions according to relative location of the sun and earth. Second, what comes in the verse that the Almighty Allah made the sun a pointer of it indicate that it is the sun's light that indicates the existence of the dark matter. All stars including the sun; their vision from the earth, whether at night, with respect to stars, or at day with respect to the sun are a historical vision. What we see at night in some parts of the earth are the histories of the far universe by lights we would receive later from them. So, it is the dark matter that might be expanding carrying the whole universe. With respect to the second verse we interpreted it as that the Almighty Allah prevented the shadow (dark matter) from speeding up by withdrawing it towards Him gradually, which simulated by the scientific theory of rotations of the galaxies so as not to escape out. The camel's picture near some brass in a desert in Figure 5 is a best representation of this phenomenon. It was taken from high distance intensive light on a white camel near white brass in the desert; it shows the white camel and brass with black color and white shades on the ground, (Magdy). This indicates that a part of the dark matter appeared over the white camel in a dark media as a result of intensive light came from the respective source. The desert looks with brown color indicating that the light over it was not intensive. The phenomenon of our accumulated figures in this regard simulates, in general, the possibility of relationship between the dark matter & the cosmological constant and the acceleration of the astronauts' movement on the dark matter. It simulates also the theory of relativity with respect to the constancy of the velocity of light with the highest possible speed, but on the dark matter rather than on vacant as considered in the theory of relativity.

Figure 1: X95.Zeptoseconds Accumulated Values

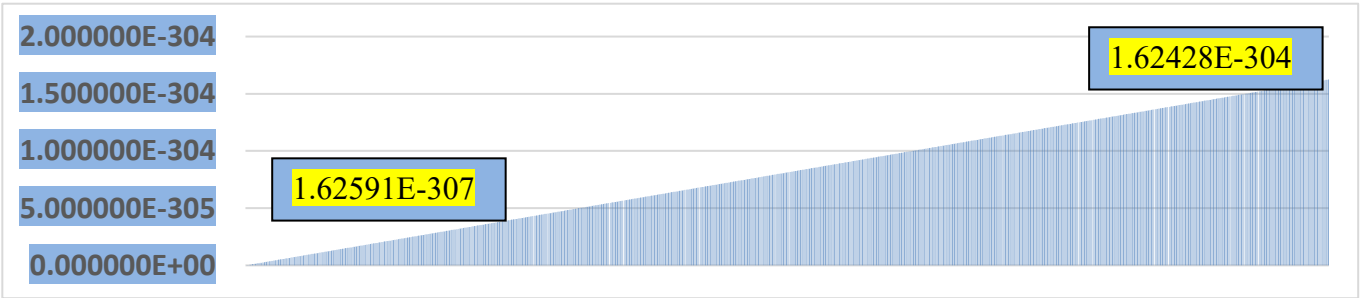
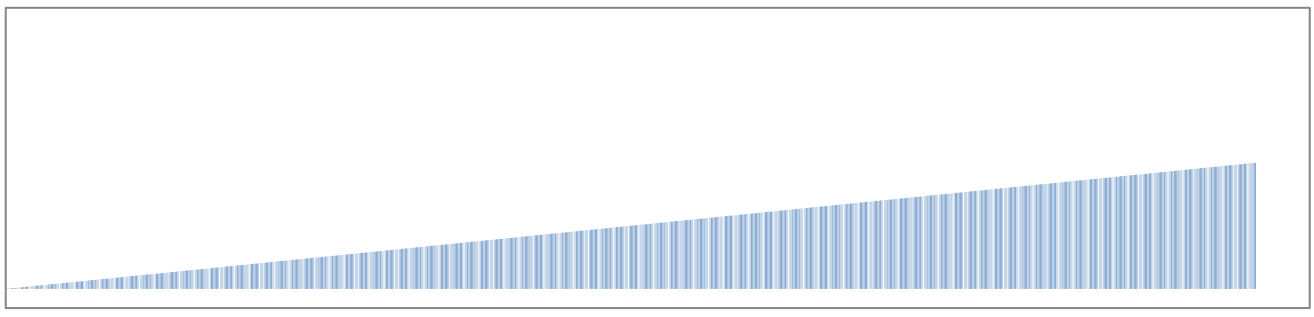


Figure 2: Milliseconds Accumulated Figures



1.62591E-07

1.61128E-07

Table 1: Reference's Date/Time Accumulated Figures from the Starting of the Big Bang

Second	Minute	Hour	Day	Month	Year	Century	Millennium
18	18	29	8	6	24	20	1
4.715140E-06	1.755983E-04	0.010536	2.9577	4.5	6.75	13500	20250

Figure 3: Real and Virtual Expansion Self-contained in Infinity

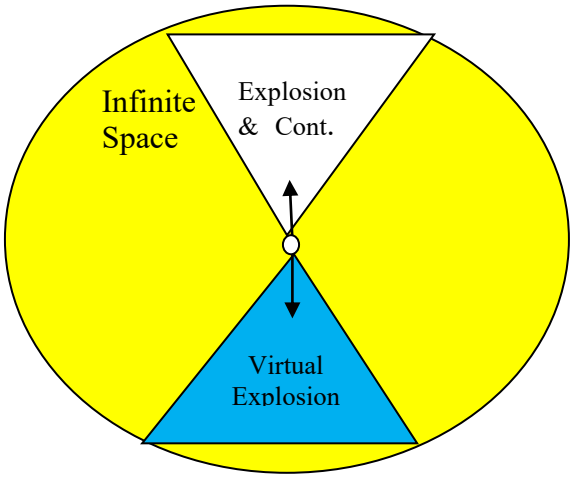
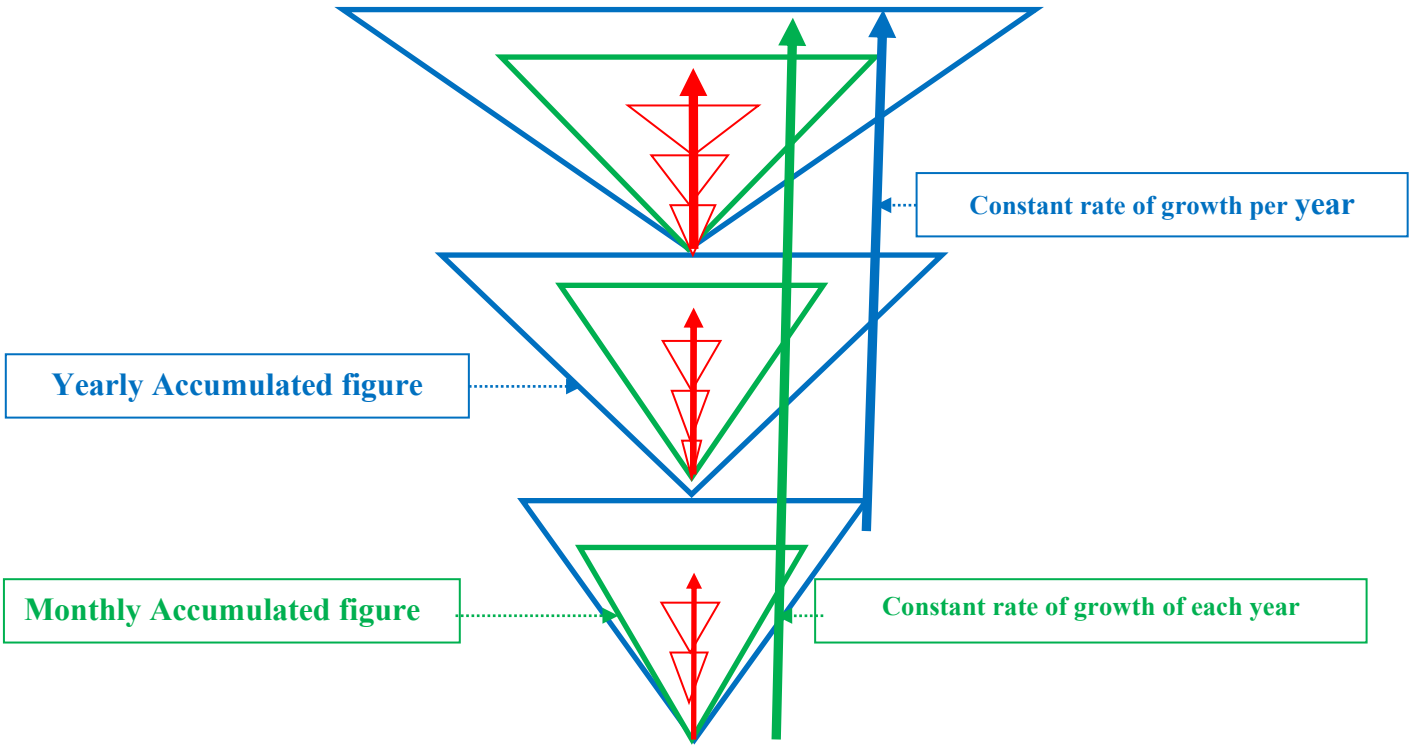


Figure 4: Accumulated Figures Cosmological Constant



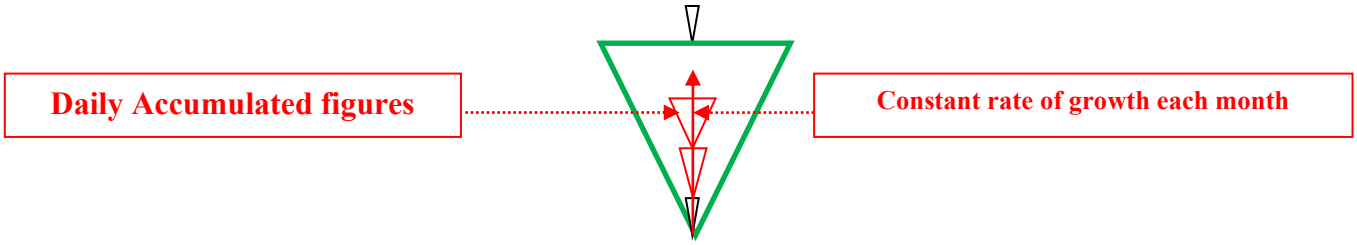


Figure 5: Dart Matter in the Shape of a Camel with Grass



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Section 2: The Methods' Supplementary Section

In this section we are going to describe the methodology used in this research, starting with an introduction on its main features. This methodology was based on the relationships between the solar and lunar date and time by the author on the construction of Hijri Callender combined to Gregorian calendar by Mathematical methods, published by Matter International Journal for Science and Technology. The baseline information of the research was derived from the findings of other paper by the author on the Construction of the Natural Solar Calendar by Mathematical Methods, published by the Global Journal of Science. The hypothesis of the two papers were derived from a verse in the Holly Quran in Alkahf Sura on the story of righteous youths escaped from their evil governor to a cave where they stayed there for a number of years. The verse translated as "*They stayed in their Cave Three hundred years, and Add nine* ", which interpreted by the author that every 309 lunar year equals exactly 300 solar years without any decimal point, and was proved in the first paper. The main issue in the methodology of this research is the calculation of accumulated figures for measuring the space-time locations based on a month's accumulated standard figures calculated in the second paper. This was done by breaking down the solar months' accumulated figures to the lowest attainable scale of time. Another important issue in this research is that, as discovered in the first paper, the structure of number of months' days per year found to be the same for all years for each specific period, which, first, it proved that the time repeats itself each specific period; second, it facilitates the sophisticated calculations in the two papers; otherwise the calculation would have to be done for each year, which is a very tiresome work.

2.1 Methodology

2.1.1. Introduction

The methodology of this research is based on methodology and results of previous two papers by the author. The first one is on the construction of Hijri Calendar and its conformance to the Gregorian calendar by mathematical calculations, 1; the second one is on the construction of Natural Solar Calendar by mathematical calculations, 2. The key point of this method is a verse from the Holly Quran, verse number 25, Alkahf Sura, translated as "They *stayed in their Cave Three hundred years*, *and add nine*". The story of this incidence was that there were righteous youths escaped from their evil governor to a cave, where they stayed therein for a number of years. According to our understanding of this verse we hypothesized that every 300 solar year equals exactly 309 lunar years without any decimal point. From this relationship we calculated a standard figure and accumulated it for the lunar months for 309 lunar years. The number of month' days for each lunar year were calculated from these accumulated figures. Accordingly we constructed Hijri calendar that we called a Mathematical Hijri Calendar aligned it to the Gregorian calendar. In the second paper, we applied the same method to construct the Mathematical Natural Solar Calendar from accumulated figures calculated from the same

relationship. In this research we applied the same method for the measurements of space-time, using the month's accumulated figure of the reference's date/time from the Mathematical Solar Natural calendar paper; then we broke it down to the most smallest attainable fraction of units of time, starting from month's, day's, hour's, minute's, second's, microsecond's, nanosecond's accumulated figures and so on down to Zeptoseconds, the smallest defined unit of time; then we proceeded with a scale of time that we developed after the Zeptoseconds defined as XN.Zepto-seconds, where N equals 1 and over; and each XN.Zepto-second consists of 1000 X(N-1).Zepto-seconds. We continued with these units starting from X1.Zeptosecond down to the smallest fraction could be attained. Accordingly, we constructed sets of space-time modules from the different accumulated figures as measurement of space-time, from the earliest stages of the Big Bang up to the current stage of the expanding universe. The Reference's Date and time of the beginning of the modules was 8/6/2024, 18:18:29 GMT, the starting date of this research, which advanced the total eclipse in 8/4/2024–18:18:29 GMT by two months. According to our Mathematical Natural Solar Calendar date, the eclipse date was before the Gregorian date by two days to be in 6/4/2024 –18:18:29. We note here that because the space-time descending fractions of time units are so small that it would not be completely shown by the available calculation devices, we developed a mathematical procedure to identify part of them through the deeply lower scale of time at the early stages of space-time. Although this procedure does not show all decimal points, it maintains the uniqueness of the identified figures down to very far lower attained fractions of time.

2.1.2 Calculation the required accumulated figures

The standard months accumulated figures in the two previous papers were calculated as follows:

- 309 lunar years = 300 solar years = 109575 days = 3600 months ---------- (1)
- For the Mathematical Hijri calendar the standard monthly figure S_{MHJ} calculated as follows
  - Number of Hijri months per 309 Hijri years = 309*12 = 3708 ------- (2)
  - The average number of days per month, A = 109575/3708 = 29.5509708738 --- (3)
  - S_{MNJ} = 30 – A = 30 - 29.5509708737864 = 0.449029126213592 - - (4)
- For the Mathematical Solar calendar the standard monthly figure S_{MNS} calculated as follows
  - The average number of days per month A = 109575/3600 = 30.4375 ---------- (5)
  - S_{MNS} = 31 – A = 31 - 30.4375 = 0.5625 ---------- (6)

2.1.3 *Calculation the number of days per month for the solar natural calendar*

- Accumulated figures for 300 years Mathematical Solar months were calculated by accumulation of the standard figure value of S_{MNS} (0.5625).
- Assigning the number of months' days per year for 300 years' months (3600), to be 30 or 31, from the decimal points of the months accumulated figures whether its decimal point less or more than the standard figure.
- By studying thoroughly the number of months' days for the 300 solar year we discovered that the structure of these days repeated itself each 4 years.

2.1.4 *Calculation of number of days per month for the Solar Natural Calendar*

- From the accumulated figures of the first four years we assigned the number of days for this group of years.
- We replicated the number of months' days of the first 4 years for 300 years based on the circular phenomenon of time we discovered in this respect.

2.1.5 Breaking down the required monthly accumulated figure

- The accumulated figure value of the first month (June) of the reference's date at its starting point from the origin of Big Bang was found to be 3.375.

- The accumulated figure of this month (3.375) was broken down into accumulated figures for smaller units of time, starting from its last day, hour, minute … of the reference's time down to the last lowest possible subunit of time attained according to our defined smallest Zepto-seconds scale of time.

2.1.6 Calculation Sample groups of accumulated figures

As the methodology of this research is complicated, the accumulated figures were calculated for sample of two groups across the course of the space-time from the beginning of the Big Bang as follows:

The First Group: In this group the accumulated figures were calculated for a sample of aggregate days, months, years, decades, centuries and millenniums units of time.

The second Group: In this group, a sample of five days' accumulated figures broken down into small scales of time to the lowest possible scale classified into two periods, as follows:

The first period

1. *The First day*: Starts form the beginning of **the first day** of the **first month** of the **origin year** of the reference's date/time in space-time up to the end of the day.
2. *The Second day*: From the beginning of **the first day** of the **second month** of the **origin year** of the reference's date/time up to the end of the day
3. The Third day: Starts form the **first day** of the **first month** of **the second year** from the origin of the reference's date/time up to the end of the day

The second period

1. The Fourth day: Starts from the **origin of the reference's date at space-time** up to the end of the **reference's day**
2. The Fifth day: Starts from the **origin of the reference's date at space-time** up to the **reference's date/time incident**.

In this period, for the fourth day, the accumulation figures includes the complete reference's day scales of time, whereas for the fifth day (the reference's date/time), the accumulated figures stops at seconds scale of time because no time information was available on the incident of the total eclipse down the seconds scale of time.

The procedures of calculations of the accumulated figures for these units are as follows:

Days:

The first period: The sample of the accumulated figures for the first period consists of three days as follows:

- The accumulated figures of the first and the second month:
    - The monthly standard figure, 0.5625, is the accumulated figure of the first month (January); so, from this figure we calculated the accumulated figure of the origin of the reference's month (June) by multiplying 0.5625 with 6
        - 0.5625*6 = 3.375
    - The second month (July) accumulated figure calculated by multiplying 0.5625 with 7
        - 0.5625*7 = 3.9375
- The accumulated figures of the of the first and second month's days
    - According to the Solar Natural Calendar the number of days in June equals 31, then the accumulated figure of the first day of June equals
        - 3.375/31 = 0.0108871
    - According to the Solar Natural Calendar the number of day in July equals 31 then the accumulated figure of the first day of July equals:
        - 3.9375/31 = 0.12702
- The accumulated figures of the first day of the first month of the second year
    - The number of months in two years = 24
    - The second year's accumulated figure = 0.5625*24 = 13.5
    - The first month of the second year accumulated figure = 13.5/12 = 1.125
    - According to the Solar Natural Calendar the number days in the first month of the second year equals 30, then the accumulated figure of first day of this month equals:
        - 1.125/30 = 0.0375

Months:

The months' accumulated figures were calculated by accumulating the standard figure 0.5625. They were calculated for the first four years from the beginning of the space-time expansion.

Years:

Accumulated figures for 10 reference's date's years were calculated from the beginning of the space-time as follows:

- ✓ Accumulation of the monthly accumulated figures (0.5625) for the first 10 years.

Decades:

Accumulated figures for 10 decades from the beginning of the space-time were calculated as follows:

- ✓ The differences between the years' accumulated figures were calculated; found to be 6.75
- ✓ Each of the accumulated figures for the first 10 decades was calculated by multiplying it by 6.75.

Centuries:

The accumulated figures for the first 10 centuries from the beginning of the space-time were calculated by the same procedure as for the accumulated figures for decade by multiplying 6.75 with multiples of 100 years successively for each century.

Millenniums:

The accumulated figures for the first 10 millenniums from the beginning of the space-time were also calculated by the same procedure as for the accumulated figures for decade by multiplying 6.75 with multiples of 1000 years successively for each millennium.

We presented in the Tables and Figures Section the months' accumulated figures for the first four years; and details of accumulated figures for three groups of scales of time with 1000 sub-units per scale in ascendant order. The first group some subunits of the accumulated figures of the X.95.Zeptodeconds starting from infinity, to the infinitesimal scale border, and to the zero scale of time; the second group the accumulated figures for some subunits of the X10.Zeptosecond scale of time; the third group the accumulated figures of the last 10 subunits, starting from X1.Zeptoseconds to X9.Zepgoseconds scale of time according to our definition of extended scale of time; lastly, the fourth group, the last 10 subunits of this group, starting from Zeptoseconds the last defined scale of time, up to second; then the accumulated figures of seconds, minutes, hours; and finally the accumulated figure of the whole day.

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

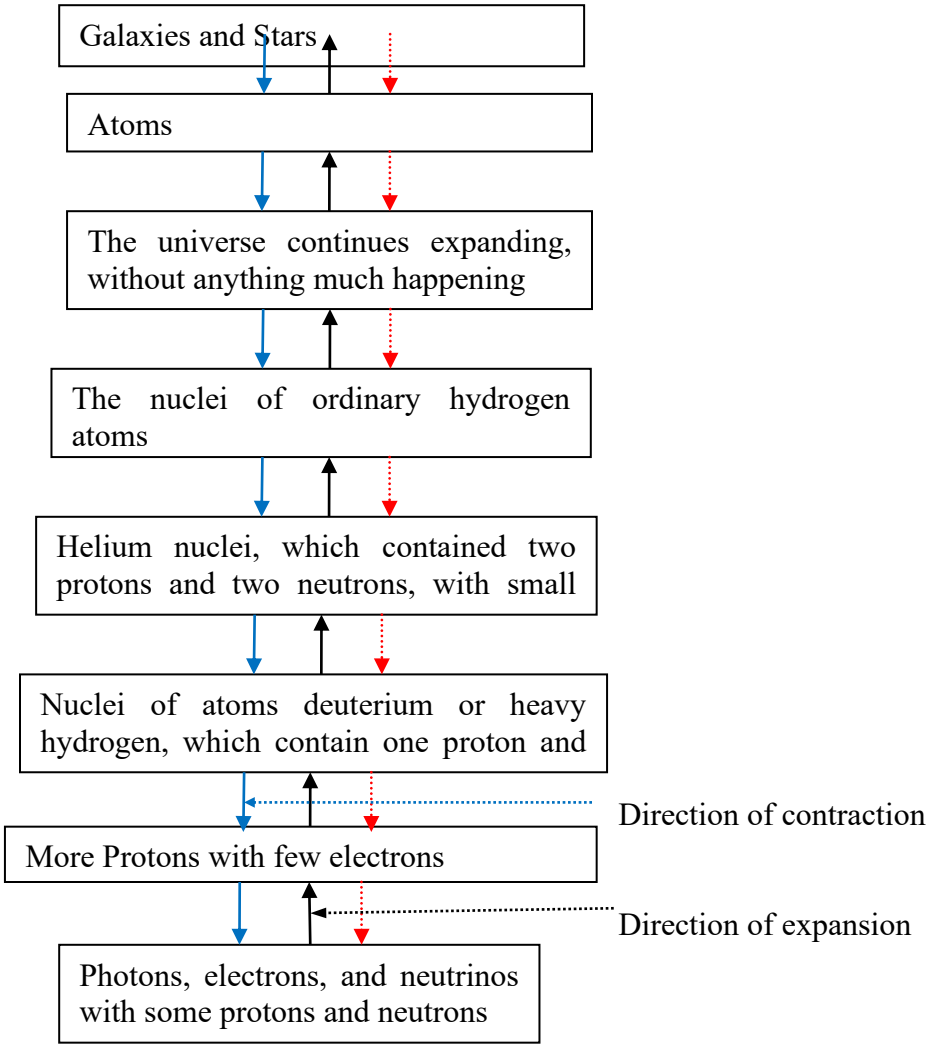
Planck's time is reported to be the smallest period of time that can be measured. One Planck's time is the time it would take a photon travelling by speed of light to cross a distance equals to one Planck's length. It roughly equals 10^{-43} seconds. And Planck's length is the smallest unit of length; 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 ($a=1.590511178*10^{-76}$ J·s versus $h=1.616255*10^{-35}$ 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 $1.590511178\times10^{-76}$ 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

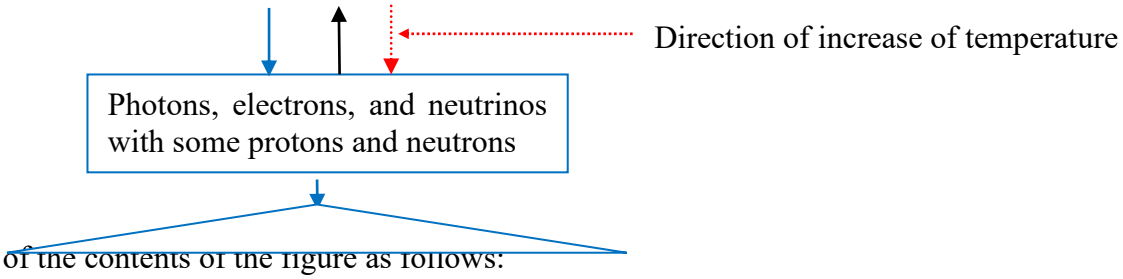
dividing it continuously by 1000. If we calculated the lower scale of time and its highest subunit's accumulated figure before our previous wall we would find it to be X1095.Zeptoseconds with accumulated figure equals 1.62428E-1304 for its last 1000th subdivision. So, we would come with infinitesimal wall starts from (X1095+n*1000).Zeptoseconds with accumulated figures equal 1.62428/E-1304^n*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, 1.625900000000001E-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*109575 = 109575000
- Seconds in 1000 years = 109575000*24*60*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 = 1.91548433E-14*100
    - = 1.91548433E-12
- Therefore the accumulated figure values of deuterium nuclei location in space-time:
    - = 1.91548433E-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 = 1.91548433E-14
- The value of accumulated figure per hour = (1.91548433E-14)*60*60 =
- = 6.895743588E-11
- The value of accumulated figure per 3 hours = 6.895743588E-11*3 =
- 2.0687230764E-10
- Therefore the production of helium and other elements stopped at accumulated figure location equals 2.0687230764E-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*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, seining, 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 spices. 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 Holly 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 spices 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 Holly Quran could be represented by individual accumulated figures. The other print types indicated in the Holly 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 Jacopo said to his people that he had senesced 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 Iiiyyeen*", "*but how do you know what Iiiyyeen 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 Holly 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 Holly 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 Holly 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-Ira 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. An 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.

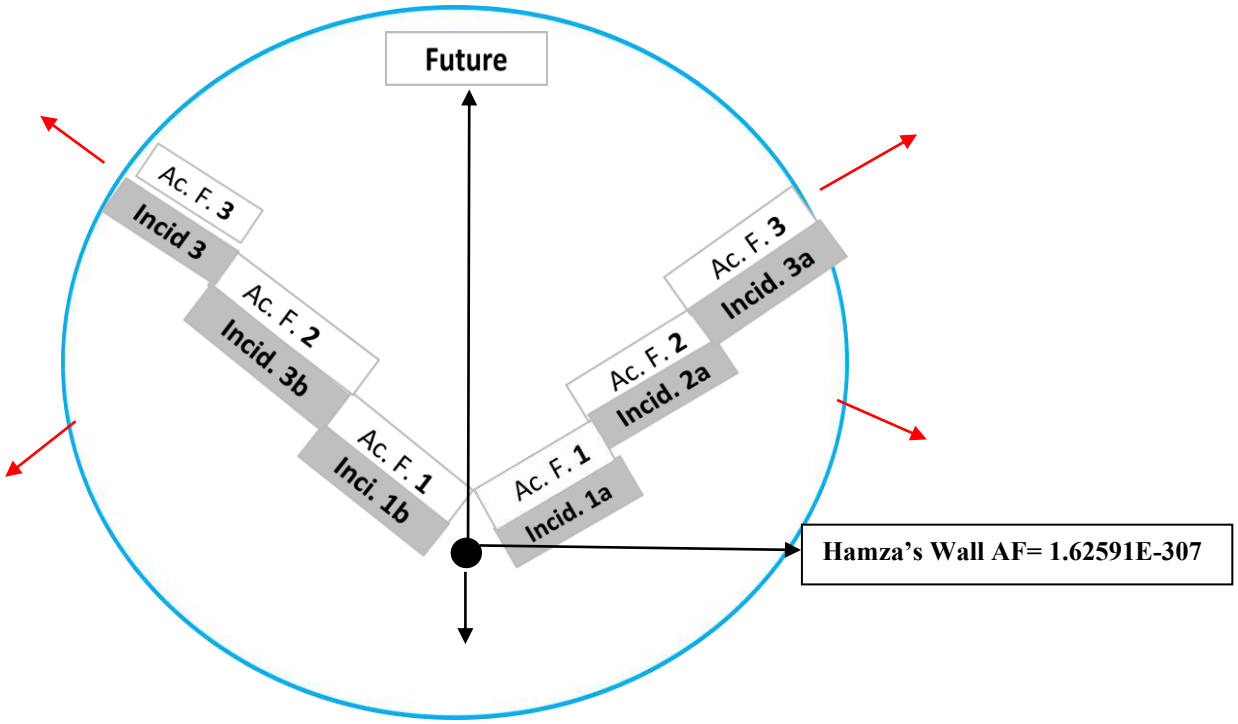
3.6 The Black Holes & Singularity

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 (cambredge.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

Infinity -- -- Infinity



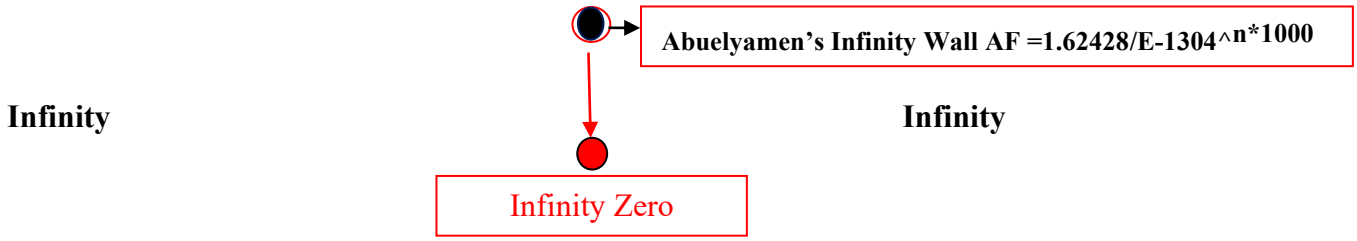


Figure SA.3: The Collapse of Months' Accumulated Figures into Singularity before Starting the New Day of the following Month



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, (wikepedia.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 1.62591E-307 accumulated figure as represented in Figure SA.7.

Figure SA.5: The universe curvature

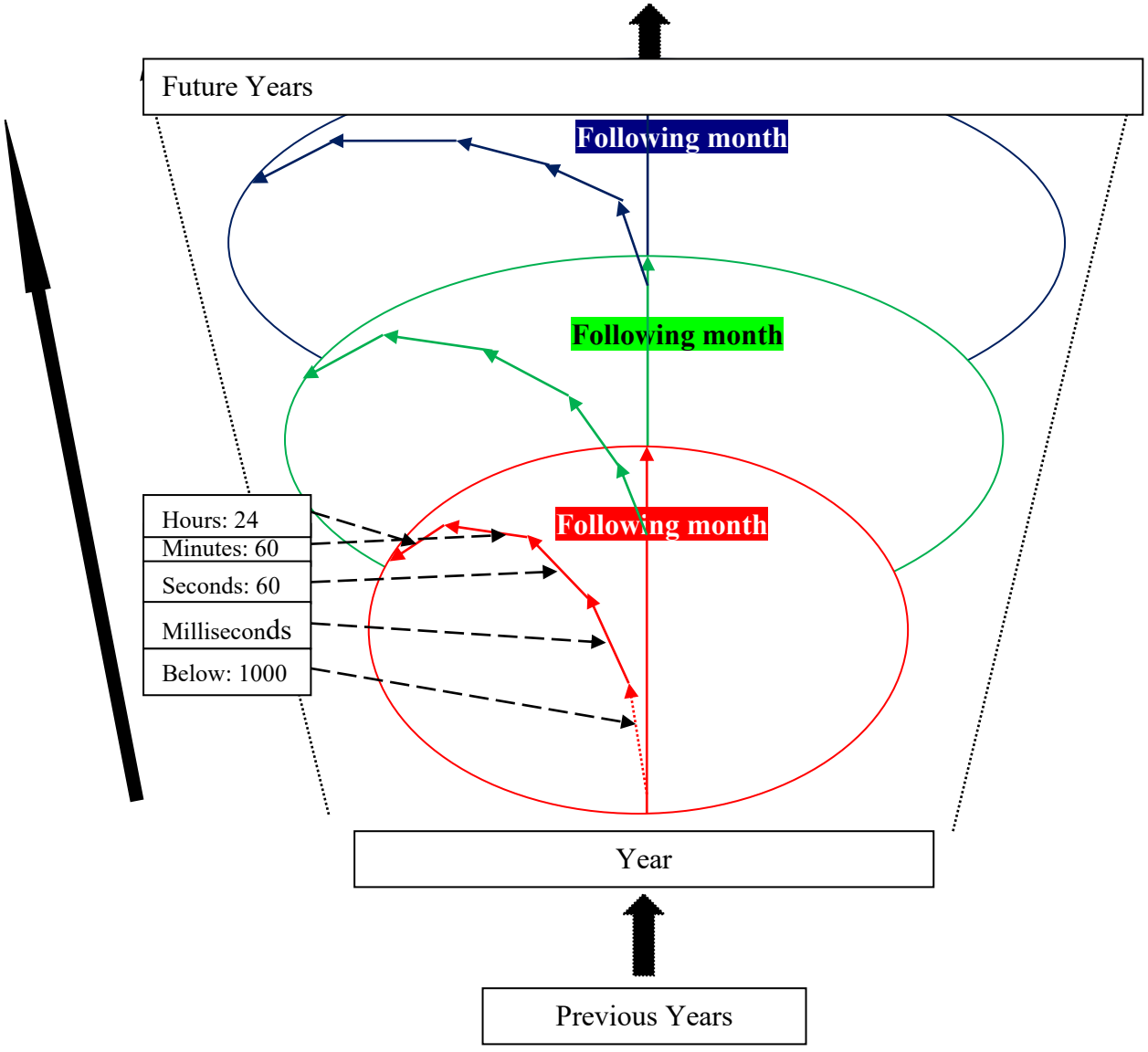


Figure SA.6: Representation of the Self Contained Universe in infinity

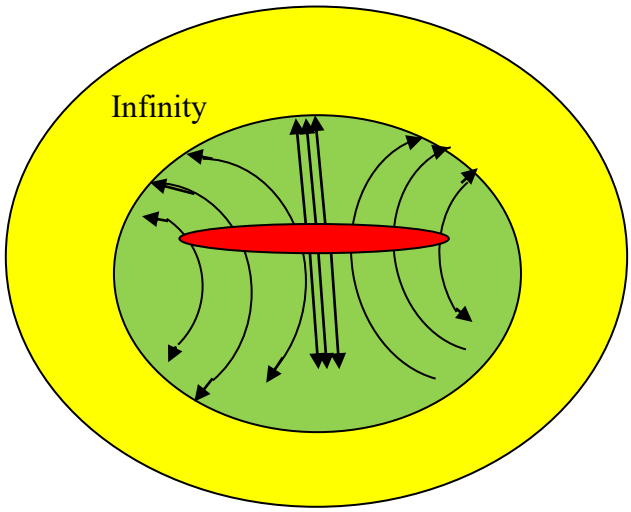
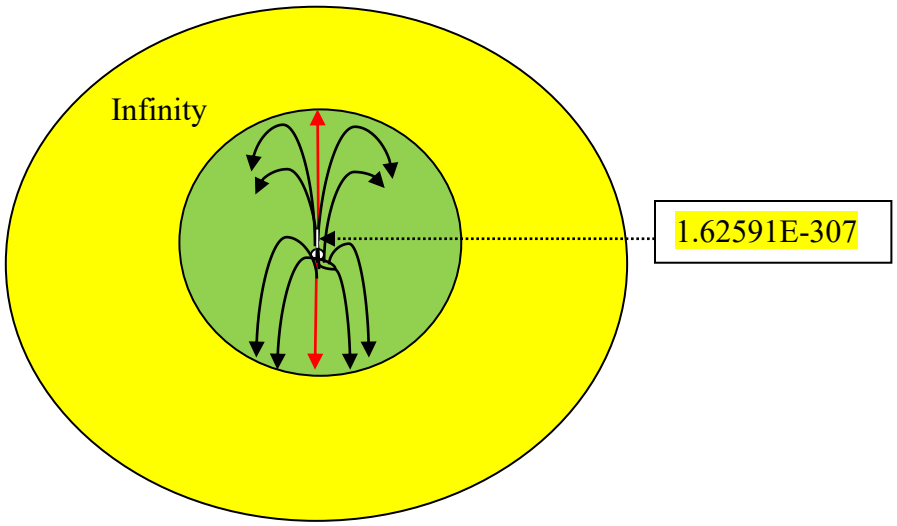


Figure SA.7 Representation of the Self Contained Universe in Infinity likeness the Circulated Trees



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.

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Section 4: Tables and Figures Supplementary Section

4.1 Tables

In this part we present more tables on the accumulated figures produced for different space-time locations, a sample of which was presented in the Print Section. The first table is the monthly accumulated figures of the first four solar years. The first four years is a sub round of the 300 solar years round that equals exactly 309 lunar years round as we proved in our paper on the construction of the Mathematical Hijri Calendar. Other tables divided into two groups of accumulated figures of space-time; the first group includes the accumulated figures of the infinitesimal wall and the X95.Zeptoseconds time wall, which are the lowest attainable scale of time with the lowest attainable accumulated figures in infinity and the observable universe (Table ST.2:); and the X10.Zeptoseconds scales of time starting from the first subunit to the 1000th subunit by skipping 200 subunits. (Table ST.3). The second group includes the accumulated figures of the last 10 sub units of time from X9.Zeptosecond's accumulated figures, starting from the first subunit to the 1000th subunit, to the last 10 scales of X1.Zeptoseconds followed by the defined scales of time from Zeptoseconds to seconds, minutes, hours and days' accumulated figures (Table ST.4).

Table ST.1: The Monthly Accumulated Standard
Figures for the first Unit of the of the 75-unit Series

Year/Month	1	2	3	4
January	0.56250	7.31250	14.06250	20.81250
February	1.12500	7.87500	14.62500	21.37500
March	1.68750	8.43750	15.18750	21.93750
April	2.25000	9.00000	15.75000	22.50000
May	2.81250	9.56250	16.31250	23.06250
June	3.37500	10.12500	16.87500	23.62500
July	3.93750	10.68750	17.43750	24.18750
August	4.50000	11.25000	18.00000	24.75000
September	5.06250	11.81250	18.56250	25.31250
October	5.62500	12.37500	19.12500	25.87500
November	6.18750	12.93750	19.68750	26.43750
December	6.75000	13.50000	20.25000	27.00000

Table ST2-A: X95.Zeptoseconds Accumulated Figures From Infinitesimal Wall to Infinity

The Infinitesimal Wall	The Scale of Time	The Accumulated Figures
The top of the infinitesimal wall	X1095.Zeptosecond	1.62428E-1304
The first pure infinitesimal wall	X2095.Zeptosecond	1.62428E-1304/1000
The second pure infinitesimal wall	X3095.Zeptosecond	1.62428E-1304/2000

The third pure infinitesimal wall	X4095.Zeptosecond	1.62428E-1304/3000
The fourth pure infinitesimal wall	X5095.Zeptosecond	1.62428E-1304/4000
The fifth pure infinitesimal wall	X6095.Zeptosecond	1.62428E-1304/5000
↓	↓	↓
Infinity	Infinity	Infinity

Table ST.2-B: X95.Zeptoseconds Accumulated Figures from the First Subunit to the Last Subunit

1	0.00000E+00	201	2.9266E-305	401	6.1785E-305	801	1.26821E-304	981	1.59339E-304
2	1.62591E-307	202	2.9429E-305	402	6.1947E-305	802	1.26984E-304	982	1.59502E-304
3	3.25182E-307	203	2.9592E-305	403	6.2110E-305	803	1.27146E-304	983	1.59664E-304
4	4.87773E-307	204	2.9754E-305	404	6.2272E-305	804	1.27309E-304	984	1.59827E-304
5	6.50364E-307	205	2.9917E-305	405	6.2435E-305	805	1.27471E-304	985	1.59990E-304
6	8.12955E-307	206	3.0079E-305	406	6.2598E-305	806	1.27634E-304	986	1.60152E-304
7	9.75546E-307	207	3.0242E-305	407	6.2760E-305	807	1.27797E-304	987	1.60315E-304
8	1.13814E-306	208	3.0405E-305	408	6.2923E-305	808	1.27959E-304	988	1.60477E-304
9	1.30073E-306	209	3.0567E-305	409	6.3085E-305	809	1.28122E-304	989	1.60640E-304
10	1.46332E-306	210	3.0730E-305	410	6.3248E-305	810	1.28284E-304	990	1.60803E-304
11	1.62591E-306	211	3.0892E-305	411	6.3411E-305	811	1.28447E-304	991	1.60965E-304
12	1.78850E-306	212	3.1055E-305	412	6.3573E-305	812	1.28610E-304	992	1.61128E-304
13	1.95109E-306	213	3.1217E-305	413	6.3736E-305	813	1.28772E-304	993	1.61290E-304
14	2.11368E-306	214	3.1380E-305	414	6.3898E-305	814	1.28935E-304	994	1.61453E-304
15	2.27627E-306	215	3.1543E-305	415	6.4061E-305	815	1.29097E-304	995	1.61616E-304
16	2.43887E-306	216	3.1705E-305	416	6.4223E-305	816	1.29260E-304	996	1.61778E-304
17	2.60146E-306	217	3.1868E-305	417	6.4386E-305	817	1.29422E-304	997	1.61941E-304
18	2.76405E-306	218	3.2030E-305	418	6.4549E-305	818	1.29585E-304	998	1.62103E-304
19	2.92664E-306	219	3.2193E-305	419	6.4711E-305	819	1.29748E-304	999	1.62266E-304
20	3.08923E-306	220	3.2356E-305	420	6.4874E-305	820	1.29910E-304	1000	1.62428E-304

Table ST.3: X10.Zeptoseconds Accumulated Values

1	1.6259E-58	201	3.2681E-56	401	6.5199E-56	801	1.30235E-55	981	1.5950E-55
2	3.2518E-58	202	3.2843E-56	402	6.5362E-56	802	1.30398E-55	982	1.5966E-55
3	4.8777E-58	203	3.3006E-56	403	6.5524E-56	803	1.30561E-55	983	1.5983E-55
4	6.5036E-58	204	3.3169E-56	404	6.5687E-56	804	1.30723E-55	984	1.5999E-55
5	8.1296E-58	205	3.3331E-56	405	6.5849E-56	805	1.30886E-55	985	1.6015E-55
6	9.7555E-58	206	3.3494E-56	406	6.6012E-56	806	1.31048E-55	986	1.6031E-55
7	1.1381E-57	207	3.3656E-56	407	6.6175E-56	807	1.31211E-55	987	1.6048E-55
8	1.3007E-57	208	3.3819E-56	408	6.6337E-56	808	1.31374E-55	988	1.6064E-55
9	1.4633E-57	209	3.3982E-56	409	6.6500E-56	809	1.31536E-55	989	1.6080E-55
10	1.6259E-57	210	3.4144E-56	410	6.6662E-56	810	1.31699E-55	990	1.6097E-55
11	1.7885E-57	211	3.4307E-56	411	6.6825E-56	811	1.31861E-55	991	1.6113E-55
12	1.9511E-57	212	3.4469E-56	412	6.6988E-56	812	1.32024E-55	992	1.6129E-55
13	2.1137E-57	213	3.4632E-56	413	6.7150E-56	813	1.32187E-55	993	1.6145E-55
14	2.2763E-57	214	3.4794E-56	414	6.7313E-56	814	1.32349E-55	994	1.6162E-55

15	2.4389E-57	215	3.4957E-56	415	6.7475E-56	815	1.32512E-55	995	1.6178E-55
16	2.6015E-57	216	3.5120E-56	416	6.7638E-56	816	1.32674E-55	996	1.6194E-55
17	2.7640E-57	217	3.5282E-56	417	6.7800E-56	817	1.32837E-55	997	1.6210E-55
18	2.9266E-57	218	3.5445E-56	418	6.7963E-56	818	1.32999E-55	998	1.6227E-55
19	3.0892E-57	219	3.5607E-56	419	6.8126E-56	819	1.33162E-55	999	1.6243E-55
20	3.2518E-57	220	3.5770E-56	420	6.8288E-56	820	1.33325E-55	1000	1.6259E-55

Table ST.4: From X9.Zeptosecond Accumulated Figures to Days' Accumulated Figures

	X9 Zeptoseconds	X8 Zeptoseconds	X7 Zeptoseconds	X6 Zeptoseconds	X5 Zeptoseconds
991	1.61128E-52	1.61128E-49	1.61128E-46	1.61128E-43	1.61128E-40
992	1.61290E-52	1.61290E-49	1.61290E-46	1.61290E-43	1.61290E-40
993	1.61453E-52	1.61453E-49	1.61453E-46	1.61453E-43	1.61453E-40
994	1.61616E-52	1.61616E-49	1.61616E-46	1.61616E-43	1.61616E-40
995	1.61778E-52	1.61778E-49	1.61778E-46	1.61778E-43	1.61778E-40
996	1.61941E-52	1.61941E-49	1.61941E-46	1.61941E-43	1.61941E-40
997	1.62103E-52	1.62103E-49	1.62103E-46	1.62103E-43	1.62103E-40
998	1.62266E-52	1.62266E-49	1.62266E-46	1.62266E-43	1.62266E-40
999	1.62428E-52	1.62428E-49	1.62428E-46	1.62428E-43	1.62428E-40
1000	1.62591E-52	1.62591E-49	1.62591E-46	1.62591E-43	1.62591E-40

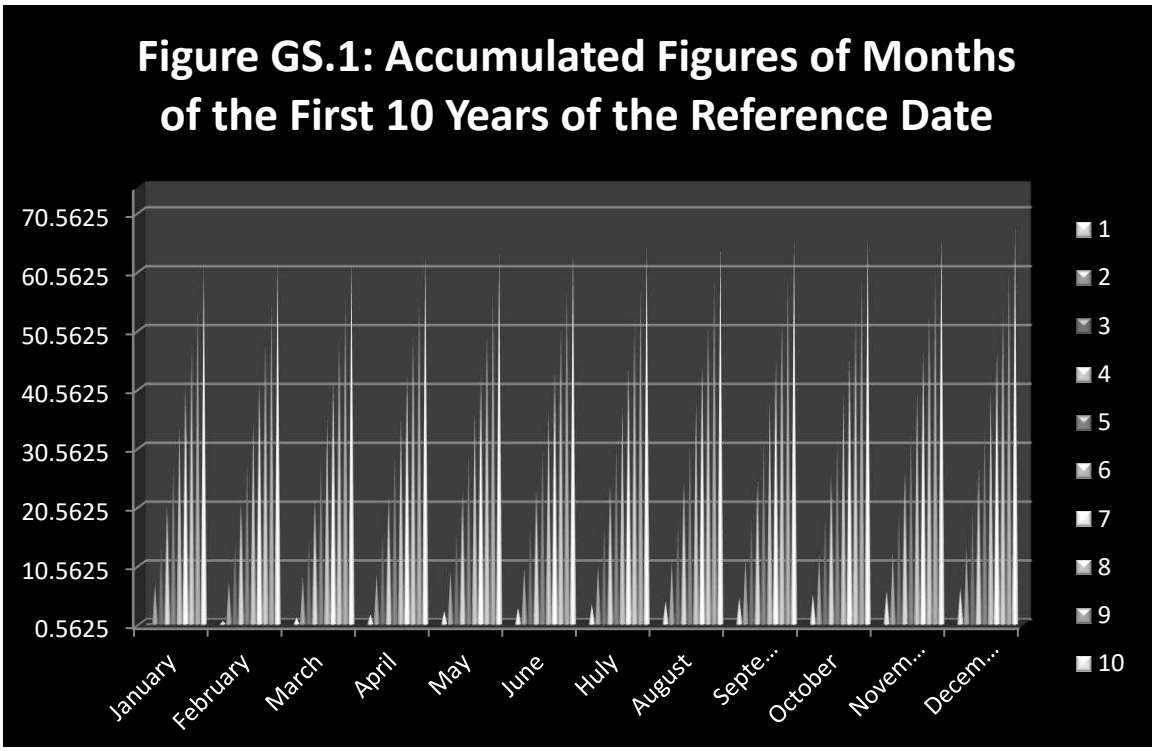
	X4 Zeptoseconds	X3 Zeptoseconds	X2 Zeptoseconds	X1 Zeptoseconds	Zeptoseconds
991	1.61128E-37	1.61128E-34	1.61128E-31	1.61128E-28	1.61128E-25
992	1.61290E-37	1.61290E-34	1.61290E-31	1.61290E-28	1.61290E-25
993	1.61453E-37	1.61453E-34	1.61453E-31	1.61453E-28	1.61453E-25
994	1.61616E-37	1.61616E-34	1.61616E-31	1.61616E-28	1.61616E-25
995	1.61778E-37	1.61778E-34	1.61778E-31	1.61778E-28	1.61778E-25
996	1.61941E-37	1.61941E-34	1.61941E-31	1.61941E-28	1.61941E-25
997	1.62103E-37	1.62103E-34	1.62103E-31	1.62103E-28	1.62103E-25
998	1.62266E-37	1.62266E-34	1.62266E-31	1.62266E-28	1.62266E-25
999	1.62428E-37	1.62428E-34	1.62428E-31	1.62428E-28	1.62428E-25
1000	1.62591E-37	1.62591E-34	1.62591E-31	1.62591E-28	1.62591E-25

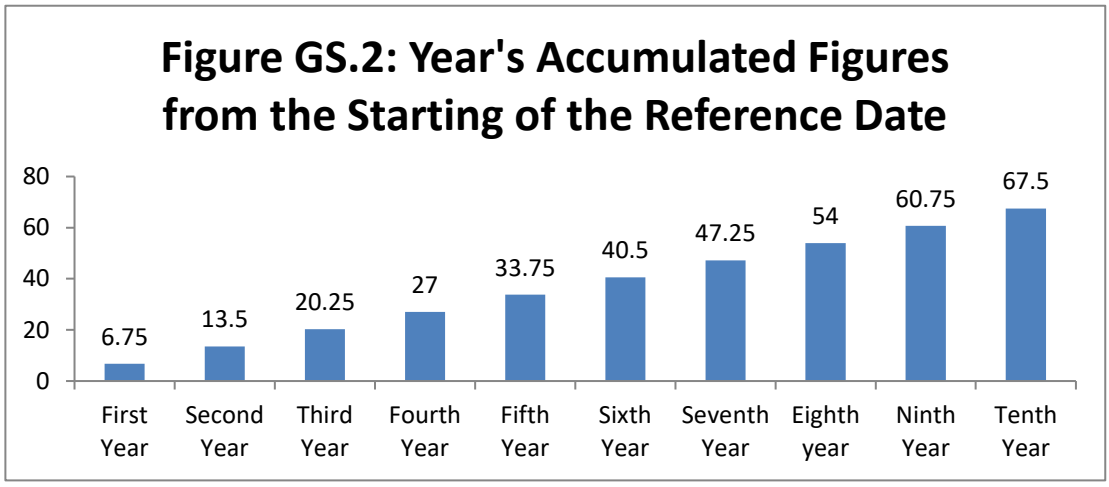
	Autoseconds	Femtoseconds	Picoseconds	Nanoseconds	Microseconds	Milliseconds
991	1.61128E-22	1.61128E-19	1.61128E-16	1.611277E-13	1.611E-10	1.61128E-07
992	1.61290E-22	1.61290E-19	1.61290E-16	1.612903E-13	1.613E-10	1.61290E-07
993	1.61453E-22	1.61453E-19	1.61453E-16	1.614529E-13	1.615E-10	1.61453E-07
994	1.61616E-22	1.61616E-19	1.61616E-16	1.616155E-13	1.616E-10	1.61616E-07
995	1.61778E-22	1.61778E-19	1.61778E-16	1.617781E-13	1.618E-10	1.61778E-07
996	1.61941E-22	1.61941E-19	1.61941E-16	1.619407E-13	1.619E-10	1.61941E-07
997	1.62103E-22	1.62103E-19	1.62103E-16	1.621033E-13	1.621E-10	1.62103E-07
998	1.62266E-22	1.62266E-19	1.62266E-16	1.622659E-13	1.623E-10	1.62266E-07
999	1.62428E-22	1.62428E-19	1.62428E-16	1.624285E-13	1.624E-10	1.62428E-07
1000	1.62591E-22	1.62591E-19	1.62591E-16	1.625911E-13	1.626E-10	1.62591E-07

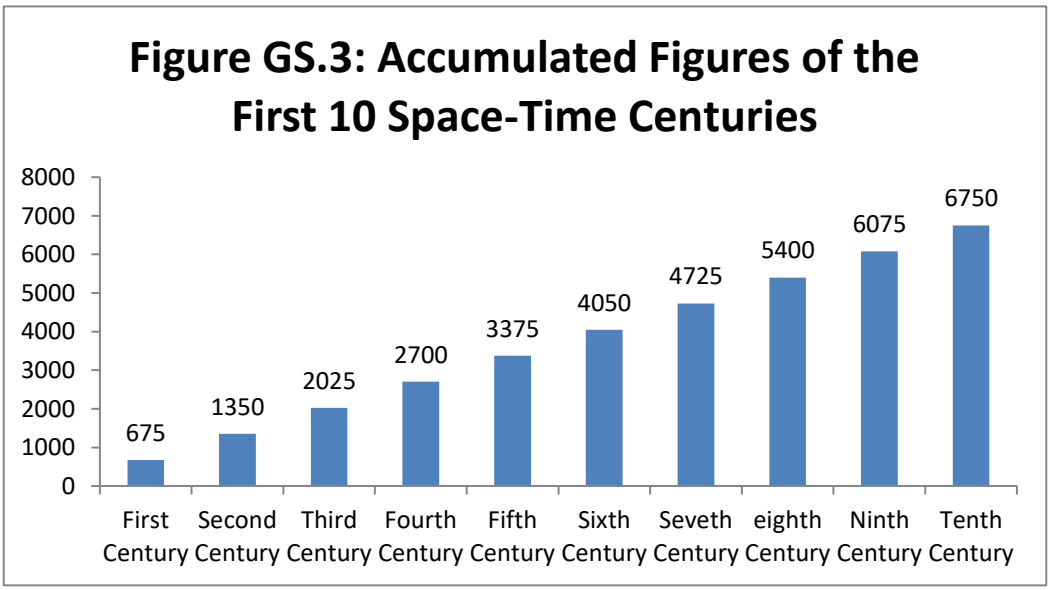
	Seconds	Minuets		Hours		Days
51	8.29214E-06	0.000498	15	0.000878	22	0.399194
52	8.45473E-06	0.000507	16	0.009365	23	0.417339
53	8.61733E-06	0.000517	17	0.009951	24	0.435484
54	8.77992E-06	0.000527	18	0.010536	25	0.453629
55	8.94251E-06	0.000537	19	0.011121	26	0.471774
56	9.10510E-06	0.000546	20	0.011707	27	0.489919
57	9.26769E-06	0.000556	21	0.012292	28	0.508065
58	9.43028E-06	0.000566	22	0.012877	29	0.526210
59	9.59287E-06	0.000576	23	0.013463	30	0.544355
60	9.75546E-06	0.000585	24	0.014048	31	0.562500

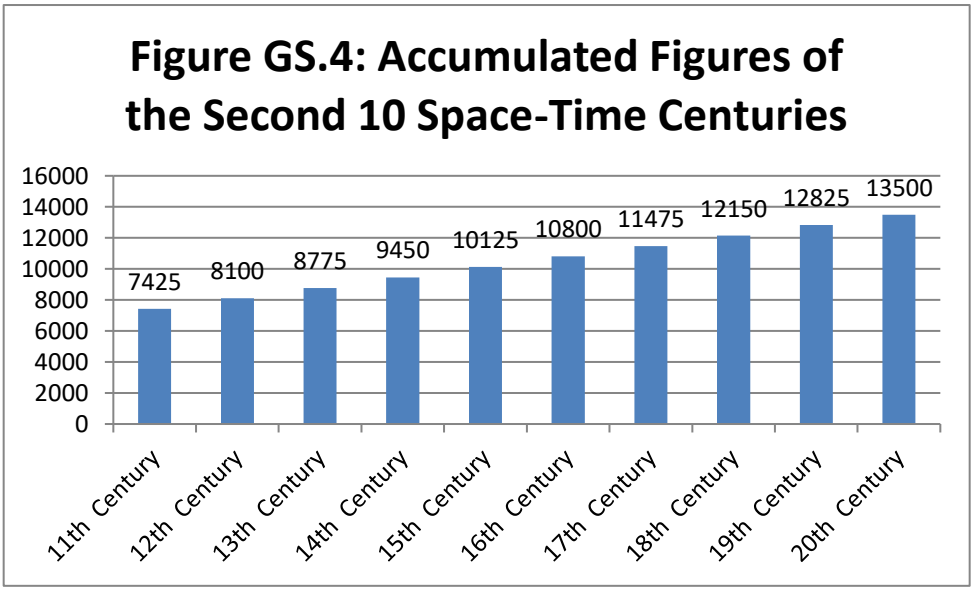
4.2 Figures

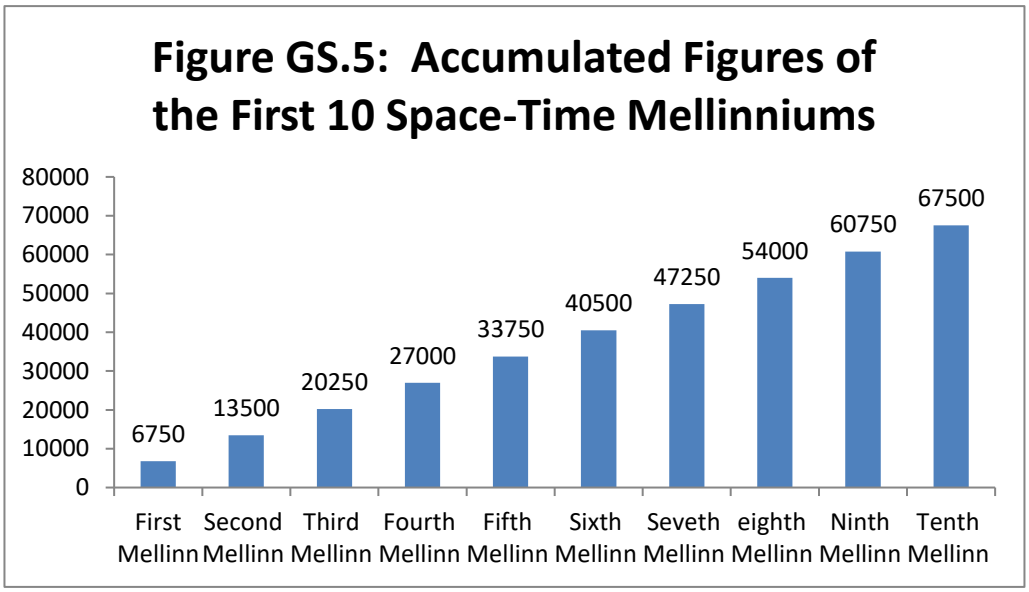
In this part of the section we present the graphic representations of the months' accumulated figures of the first 10 years (Figure GS.1), the first 10 single years (Figure GS.2), the first & next 10 centuries (Figure GS.3 and Figure GS.4) and the last 10 millenniums (Figure GS.5) from the starting point of the universe expansion. These figures include the accumulated figures of the beginning of reference's date/time scales at the explosion point, which presented in Table 1 in the Print Section of this research.




Figure GS.2: Year's Accumulated Figures from the Starting of the Reference Date
80
60
40
20
0
6.75
13.5
20.25
27
33.75
40.5
47.25
54
60.75
67.5
First Year
Second Year
Third Year
Fourth Year
Fifth Year
Sixth Year
Seventh Year
Eighth year
Ninth Year
Tenth Year


Figure GS.3: Accumulated Figures of the First 10 Space-Time Centuries
8000
7000
6000
5000
4000
3000
2000
1000
0
675
1350
2025
2700
3375
4050
4725
5400
6075
6750
First Century
Second Century
Third Century
Fourth Century
Fifth Century
Sixth Century
Seveth Century
eighth Century
Ninth Century
Tenth Century


Figure GS.4: Accumulated Figures of the Second 10 Space-Time Centuries
16000
14000
12000
10000
8000
6000
4000
2000
0
7425
8100
8775
9450
10125
10800
11475
12150
12825
13500
11th Century
12th Century
13th Century
14th Century
15th Century
16th Century
17th Century
18th Century
19th Century
20th Century


Figure GS.5: Accumulated Figures of the First 10 Space-Time Mellinniums
80000
70000
60000
50000
40000
30000
20000
10000
0
6750
13500
20250
27000
33750
40500
47250
54000
60750
67500
First Mellinn
Second Mellinn
Third Mellinn
Fourth Mellinn
Fifth Mellinn
Sixth Mellinn
Seveth Mellinn
eighth Mellinn
Ninth Mellinn
Tenth Mellinn

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