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THE FIRST FOUR DAYS: A SCIENTIFIC VIEW FOR THE CREATION OF THE UNIVERSE

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Abstract

The first four days of Genesis are scientifically interpreted according to the author's well-developed black hole universe model. From this scientific view for the creation of the universe described in the book of Genesis, God in the first day created the space and time, matter and motion, charge and fundamental forces, energy and light for the infinite large entire universe. Then, in the second day, God hierarchically structured the entire universe by separating the matter and space with infinite layers that are bounded by event horizons and further formed our finite black hole universe. In the third day, God constructed the interiors of our finite black hole universe with planets, stars, galaxies, and clusters, etc. And, in the fourth day, God finally created our home planet Earth and the solar system and made lights including the Sun, Moon, and stars to give light to our universe and Earth. This up-to-date explanation to God's creative work during the first four days has bridged the gap between Genesis and observations of the universe and brought us a scientific view and understanding on the book of Genesis. This innovative interpretation of Genesis also strongly supports the black hole universe model to be capable of revealing the mysteries of the universe. This is a synthetic article of the four papers recently published on IJTPS to interpret the first through fourth day of Genesis according to the black hole model of the universe.

Keywords: Genesis; Cosmology, Black Hole; Universe

1. INTRODUCTION

Cosmology is the study for the origin and development of the universe. The cosmological method is scientific, philosophical, and theological (Figure 1). The science of cosmology discovers the truths of the universe and explains why the phenomena scientifically occur in the nature. The philosophy of cosmology reveals the beauty of the universe, including the conceptual foundations of cosmology and

the philosophical contemplation of the universe as a totality. Philosophically, the universe must be in all aspects characterized as beauty, simplicity, and completeness. An ugly, complicated, and incomplete stuff cannot be a work done by God. The theology of cosmology reveals the love of the universe, including the initial creation and origin of the universe and lives, and shows God's spirit, power, and love to the entire universe and all lives created by him including our earthly beings. Overall, cosmology is a branch of study to find scientifically the fundamental truths of the universe, to explore philosophically the complete beauty of the universe, and to uncover theologically the great love of the universe.

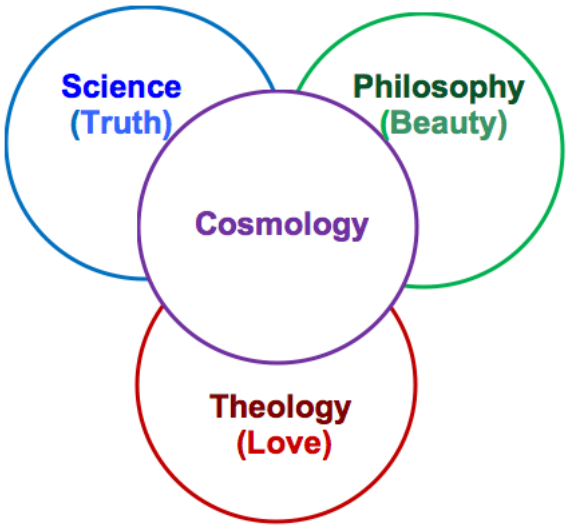

Fig. 1: Cosmology is the study of the universe, combining science, philosophy, and theology [1]. The science of cosmology explores the fundamental truths of the universe; the philosophy of cosmology reveals the complete beauty of the universe; and the theology of cosmology shows the great love of the universe

The cosmology has a long history which can be traced back to the 3000 BC's Babylonian cosmology with the heavens and the earth being equal and joined as a whole without the geocentric worldview, the 1700 BC's Hindu cosmology for the universe to be cyclically created and destroyed with the multiverse concept, the ancient Hebrew or biblical cosmology of a flat earth at the middle connecting via gates with a hell below the earth and heavens above the earth, the 2 AD's Ptolemy geocentric model of the universe that describes our earth to be the center of the universe and all planets including stars and the moon to be revolving around the earth, and the 1600 AD's Copernicus-Kepler-Newton heliocentric model of the universe that describes the Sun to be the center of the universe and our earth (also planets and the moon) to rotate by its own. The modern cosmologies were developed on the basis of the ideas of the early cosmologies and the observations of the universe with modern technological instruments, and started their eras especially after Albert Einstein developed his general theory of relativity in 1916, such as Einstein's infinite static cosmology and Friedmann-Lemaitre's finite dynamic big bang cosmology. The ancient cosmologies were most mainly philosophical and theological, while the modern cosmologies including the Copernican heliocentric model of the universe were more scientific. The author believes that a complete cosmology should cross the borderlines among science, philosophy, and theology. Any finite universe model must face critical issues and difficulties on the outside worlds and prehistory of the universe. Any infinite universe model cannot actually scientifically address the origin of the entire universe, but may philosophically describe it as being existed forever beginninglessly and endlessly or theologically describe it as being created by God in the beginning.

Based on the well-developed modern sciences of the nature and high-tech observations of the universe, scientists have developed the standard big bang cosmological model. It solidly bases on the Einsteinian general relativity (GR) to describe the effect of matter on spacetime and the Newtonian cosmological principle (CP) to describe matter and radiation to be uniformly distributed in the spacetime.

But this model strongly relies on an increasing number of hypothetical entities (HEs) in order for it to be capable of explaining the observations of the universe and overcoming the cosmic difficulties (Figure 2). The big bang model of the universe (BBU) is not yet enough scientific because it includes many HEs that may never be tested or justified such as dark energy and inflation, not yet enough philosophical because it has many uncertain issues that cannot be appropriately solved or answered such as what the outside of the universe is, what the era before the big bang was, where the universe came from, etc., and thus is incomplete or imperfect, and not yet theological at all because it is severely inconsistent or conflicts with the book of Genesis of the bible and thus excludes the creator, God. A big bang of this finite universe does not need God, but for the outside and prehistory, we may still have to think these philosophically or theologically. The ancient biblical or Hebrew's cosmology, conventionally developed from the book of Genesis, is apparently theological and severely contradicts with observations of the universe, so that it is not scientific. The book of Genesis likely appears to describe the universe with a flat earth at the middle connecting via gates with a hell at bottom and heavens at top. The discrepancy between observations of the universe and Genesis of the bible are most probably resulted either from the ancient bible writer, who did not appropriately describe God's inspiration for the creation of the universe, or from the later bible translators, who did not precisely translate the book of Genesis from Hebrew to English. There has not yet been any scientific model developed so far to be able to fully address, describe, and understand the book of Genesis about the creation of the universe.

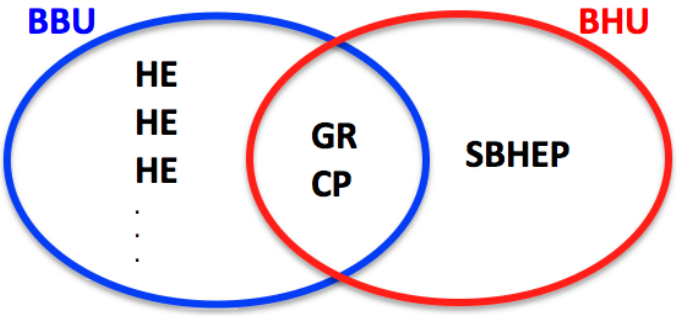

Fig. 2: The comparison of fundamentals between BBU and BHU [1]. The BBU is based on two fundamentals, GR and CP, with innumerable HEs in order for it to explain observations and overcome cosmic problems and difficulties. The BHU is based on three fundamentals: GR, CP and SBHEP, with one more base (i.e. SBHEP). The BHU can also perfectly explain all the existing observations of the universe and meantime overcome the cosmic problems and difficulties in terms of the well-developed physics without needing any other HEs.

Recently, the author developed a new cosmological model called black hole universe (BHU) on the bases of three fundamentals [2-4] in attempt to model the universe, explain the existing observations, and overcome the cosmic problems and difficulties without relying on any other HEs. The three fundamentals of black hole universe are: (1) Einstein's general theory of relativity (GR) that describes the effect of matter on spacetime, (2) Newton's cosmological principle (CP) of spacetime homogeneity and isotropy in a large scale, and (3) Zhang's newly proposed principle of spacetime black hole equivalence (SBHEP) that suggests that a black hole constructs an individual spacetime and a spacetime wraps a black hole [5]. In comparison with the currently accepted standard big bang model of the universe, the black hole universe model uses one extra principle to remove all hypothetical entities (Figure 2). The black hole universe model is scientific because it can explain all existing observations of the universe and overcome all cosmic problems and difficulties. It is philosophical because the entire universe or spacetime is beautifully structured with similarity, simply described by the well-developed physics without non-justifiable HEs, and completely represented having no beginning, no end, and no outside. Recently, the author has demonstrated that the black hole universe model is also theological because it can fully address the creation of the universe. In the sequence of study, he has self-consistently interpreted the book of Genesis regarding God's work during the first four days [1, 6-8]. This conference proceeding presents a

synthetic article to describe overall the scientific view for the creation of the universe by God in the first four days.

2. SCIENTIFIC VIEWS ON THE FIRST FOUR DAYS OF GENESIS

In accordance with the New International Version (NIV) of the bible, the sections one through nineteen of chapter one in the book of Genesis describe how God created the universe in the first four days. This conference paper synthetically overviews the creation of the universe described in the first nineteen sections of Genesis according to the author's well-developed black hole universe model, which scientifically, philosophically, and theologically interpreted God's work on the creation of the universe during the first four days.

2.1. The First Day

The work done by God in the first day to create the universe can be divided into three parts. At first, in the beginning, God created the heavens and the earth, The heavens are the worlds of spirit, which are the holiest places or paradises that God, angels, and other heavenly beings reside or live in, as many other parts of the bible described as the dwelling places of God, God's angels, God's saints, and some human spirits at death to go. In contrast with the heavens as the worlds of spirit, the earth that God created in the beginning is the world of matter or the entire space that all the matter and earthly beings including our human beings and other lives exist or live in. The Hebrews had no proper word for the "world" in its wide sense of "universe", so the word "earth" was chosen to represent the world of mater or the universe. At this moment, the entire space created by God was an empty infinite (or formless) large dark/black hole, a three-dimensional (3D) dark empty space. Time, a quantity to measure change and motion, could not be started (or say $t = 0$ was remained) because there was no matter and thus no motion and no change. The quantity of space determines positions and measures sizes and an empty space is not yet physical, but purely geometrical. God is a spaceless being and space only opened with his creation of the universe. Therefore, in the beginning, God opened an infinite empty dark geometric space without matter and energy, called the earth in the Genesis of the bible.

Secondly, God created matter, which was initially super fluidal and neutral substance called "waters" in the book of Genesis and filled sufficiently into the empty earth (i.e. the entire space) in accordance with the Mach-Schwarzschild mass-radius relation, God's law. The waters are not those we are using and drinking daily, whose molecules are made of two hydrogen and one oxygen atoms (H_2O), All things we see nowadays are all made from this initial super fluidal and neutral matter, God's waters, as the Koran stated: "From water we have made all things." God further let his Spirit be hovering over the waters to power the initial super fluidal and neutral matter with energy and motion via the work done by the gravitational interaction (i.e. force between masses), a fundamental force created by God in this era for the nature, followed by the first and second laws of thermodynamics, i.e. the law of energy conservation including heat and the law of entropy (defined as a measure of system's disorder) increase for any isolated system or the entire universe. The rotational or spinning characteristics of all celestial objects including the later formed planets, stars, galaxies, and clusters might be due to or come from the initial hovering of God's Spirit and power. With this fundamental force, the mass of an object in the entire space measures the inertia of motion of the object. As Mach's principle stated, the inertia of an object is resulted from the gravitational interaction of the object with the rest of the universe. In this era, the time was started or created by God to measure the change and motion and it always points to the future along the direction of entropy increase. God is a timeless being and time only began with his Spirit to power his created matter and universe. The space and time (i.e. spacetime) of the grand universe that God created was an infinite large black hole with infinite great mass and radius, but a constant mass-radius ratio, and an infinitesimal mass density. In other words, the spacetime created by God is equivalent to a physical black hole. Until this point, the universe is darkness that God later called night. The temperature of the grand universe is not absolute zero but still infinitesimal because both the density and pressure of the matter are infinitesimals.

Thirdly, God created light (i.e. electromagnetic radiation), which is composed of varying electric and magnetic fields, and produced by accelerating electrically charged particles. According to the decreasing order of wavelength or the increasing order of frequency, we usually categorize

electromagnetic radiation or waves as radio wave, microwave, infrared, visible light, ultraviolet, X-ray, and gamma ray. Oscillating negatively charged electrons and positively charged nuclei including protons may produce radio waves and microwaves. Thermal motions of electrons may produce infrared. Orbital (i.e. energy level or state) changes of electrons in atoms may emit visible light and ultraviolet. Sudden stops of high-speed electrons on a target can emit X-rays. Nuclei reactions and decays may produce gamma rays. It should be noted that, to God, a light with any frequency is visible, but to human beings, the visible light has a rather narrow range of frequency or wavelength. To accomplish this goal, God simply set the free neutrons that are composed of the initial super fluidal matter to be unstably decaying to protons by emitting electrons and antineutrinos with a mean lifetime of around fifteen minutes.

Before the creation of the light, the universe was darkness, i.e. in the evening. After the creation of the light, the universe began its daytime, i.e. the morning at first. Lighting the dark universe, God changed the universe from night to day (i.e. darkness to brightness or evening then morning). We usually say a day morning then evening, but in the Genesis of bible, it always said a day first evening then morning. That God saw that light was good indicates that he liked the daytime more than the night. Therefore, the first day of creation was a long day. It contained the entire time period for God to create the 3D infinite and empty space, to make matter and fill in the space with a full of matter, to power the matter with motion and start the time, to create the fundamental forces and issue inertia, and to generate light that switched the entire space or the grand universe from night to day. It was not the earth day, which is only the time needed for our earth that we reside in to make one rotation about its axis, i.e. 24 hours. In fact, at this moment, the Sun, the planets including our earth, and the moon were not formed and placed yet, and thus it is meaningless to say the earth day. In the first day, God created the first black hole, the infinite entire space or the grand universe, simply denoted by U.

2.2. The Second Day

The work done by God in the second day to structure the infinite entire universe or spacetime into layers can be divided into two steps. First, God structured the infinite entire universe or spacetime by separating matter (i.e. the waters) with vaults or boundaries into layers or multiverses and then further created our finite black hole universe, which has a finite radius, mass, density, temperature, and entropy. Here, the vault can be understood as the event horizon (or boundary) of black hole universe, which separated the water or matter inside (or below) the vault from the water or mater outside (or above) the vault. No water or matter even the light can flow up through or escape across the vault from inside (or under the vault) to outside (or above the vault). It is the boundary for matter and light to be able to go or, in other words, the boundary for us to be able to view or observe. The sky, which we can view (and where stars shine), is limited by or extended to the vault or the event horizon. The sky, usually called celestial dome, is everything that lies above the surface of our earth including the atmosphere and outer space. The water above the vault are not the raindrops and vapours from clouds, because the vault should be much higher (as high as stars we can view) than the height of clouds.

The vault or event horizon was automatically formed from gravitational attractions when God set the speed limit of matter including light to be finite. This greatly limits our view and constrains our observable universe to be finite. No such speed limit, we suppose to be able to view or observe the entire universe. The difference between human beings and God is that of finiteness and infiniteness. The vault or event horizon, because any matter even light cannot escape from it, is darkness if it is viewed from outside. So, for us living under the vault or inside the event horizon, the outside cannot be seen because it is out of our view or is darkness or at night. God built the dark outside of the vault in the evening, and then made or fixed the bright inside of the vault in the day. Therefore, there was the darkness or evening outside the vault, there was the brightness or morning of the day inside the vault. That was the second day, which again was not the earth day with 24 hours, the time period for our earth axially rotating one revolution. The second day was the day of structuring the infinite entire universe or spacetime with infinite layers and further creating our finite black hole universe. It was the time needed for God to form the event horizons or vaults and thus separate mater outside (i.e. the side of darkness or night) from inside (i.e. the side of lightness or day).

From the infinite entire spacetime with infinitesimal matter density and absolute temperature and infinite great mass and radius to our finite black hole universe, there have infinite separations or vaults

(i.e. event horizons) to be formed. All layers or universes are self-similarly separated by event horizons (or vaults in the book of Genesis), and governed by the same physics that includes the Einsteinian general theory of relativity with the FLRW metric, Mach-Schwarzschild mass-radius relation, and positive curvature constant. Figure 3 shows the infinite hierarchically layered spacetime [4,9]. The outmost layer called the grand universe (i.e. the entire spacetime that God initially created) is infinite in radius and mass with mass-radius ratio to be a constant, but zero or infinitesimal for the density and absolute temperature. The bottom layer is the layer of child universes. The second layer from the bottom is the layer of our universe and sister universes, which are finite and parallel one another. A child universe is a subspacetime of our universe; our universe is a subspacetime (or a child universe) of the mother universe; the mother universe is a subspacetime (or a child universe) of the grandmother universe; and so on. If we number the layer from the bottom layer (or child universe) to the top layer (or grand universe), we should have the count as 1, 2, …, to ∞.

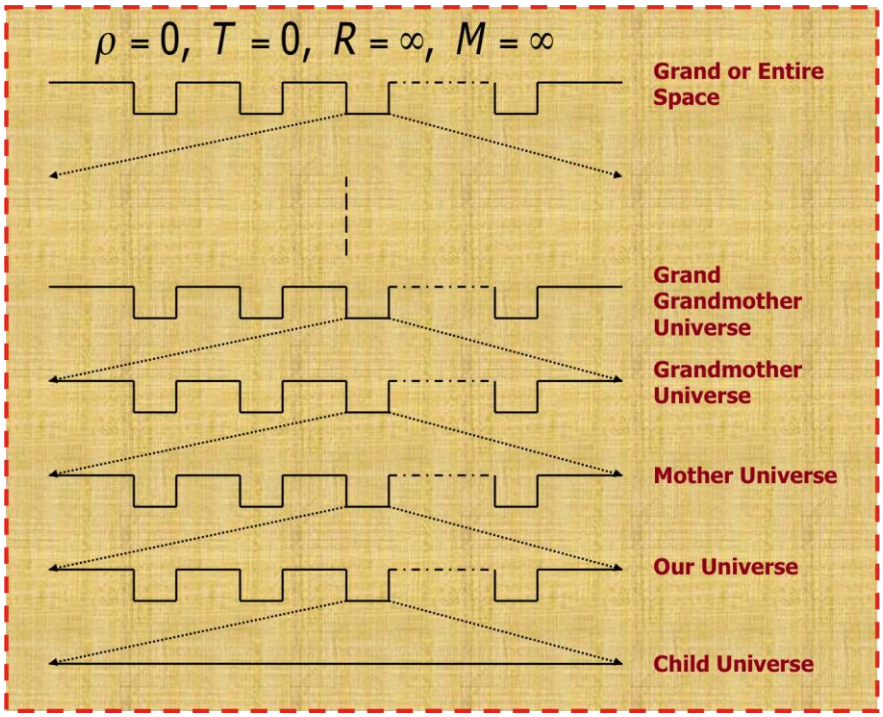

Fig. 3: The infinitely layered structure of the entire spacetime or grand universe [4, 9]. The outmost layer is the grand universe and the bottom (or innermost) layer is the layer of child universes. A child universe is a subspacetime of our universe, our universe is a subspacetime (or child universe) of mother universe, the mother universe is a subspacetime (or child universe) of grandmother universe, and so on.

Overall, in the second day, God structured the infinite entire spacetime or universe that he created in the first day into layers by separating the waters (i.e. the matter or super fluidal substance that God initially made and filled into the entire space) with vaults, which in physics can be understood as event horizons. God did this work by only setting the light speed as the speed limit for any matter and particles in the world of matter. From the infinite entire universe, which has infinite large radius and mass and infinitesimal density and temperature, to our finite black hole universe, which has a finite mass, radius, density, and temperature, there are infinite layers, which are structured hierarchically and governed by the same fundamental laws of physics. The infinitely layered structure of the entire spacetime or grand universe can be mathematically represented by sets and subsets as U = {…{F, F, F, ...{G, G, G, ...{A, A, A, ...{S, S, S, ...{C, C, C, ..., C} } } } }…}, in which {C, C, C, …., C} = O is our finite black hole universe and {S, S, S, …, O} = M is the mother universe[1-3].

2.3. The Third Day

The work done by God in the third day to construct the interiors of our finite black hole universe can be also divided into two steps. First, the matter (i.e. the water or the God's initially created super fluidal matter) under the vault (i.e. inside the event horizon, e.g. our finite black hole universe) gathers (or gravitationally collapses) to one place appears (or produces) dry ground that God called it as "land". Since the God's created initial super fluidal matter is called the water, then a dry ground or land is something without such water or not in the initial super fluidal state. That is to say, the dry ground or land should be an enough condensed, and thus not anymore super fluidal (i.e. gaseous, liquid, or solid) celestial object that God could stand firmly on, such as a star, a planet including our earth, etc. The waters under the vault (i.e. inside the event horizon, e.g. our black hole universe) gather to many places so that appear or produce seas such as galaxies (i.e. the seas of stars including planets, etc.), clusters (i.e. the seas of galaxies), etc. Gathering water to one place appears a land or celestial body such as a star and planet, and gathering waters to many places appears many lands or celestial bodies (e.g. many stars and planets) that form a sea such as a galaxy. A galaxy is a sea of stars and a cluster is a sea of galaxies. The sea refers to a vast expanse or quantity of something. It is not the expanse of salt waters that covers most of our earth's surface.

In the Hebrew's era, concepts of galaxies and clusters were not built or developed, so that they were named as seas in the book of Genesis. In China, since the ancient time to the present, our galaxy, Milky Way, had being called as a river "Silver River" (or in Chinese "Yin He"). This section of Genesis of the bible told us how God created stars, planets, galaxies, clusters, etc. from the initial super fluidal matter, i.e. the God's waters, through gravitational collapses under a vault or in a black hole universe (i.e. inside an event horizon). The matter or water flows downward across the vault and the vault rises upward, which explains the expansion of the black hole universe or spacetime. When a black hole accretes matter (or absorbs waters), it expands or enlarges its size [10]. Observations indicate our black hole universe contains billions of galaxies and each galaxy contains billions of stars. For instance, our galaxy – the Milky Way – contains about hundred billions of stars. The Virgo cluster contains thousands of galaxies, in which the giant elliptical galaxy M87 is one of the largest and brightest galaxies.

God then chose one land (i.e. celestial body or planet) that he created as our land or our earth to produce plants and trees that bear fruits with seeds according to their various kinds. God let our earth produce or grow vegetation, including plants that bear seeds according to their kinds and trees that bear fruits with seeds in them according to their kinds. Since this part does not belong to physical science, the author cannot appropriately describe the details. Therefore, the third day was the day of structuring the interiors of our finite black hole universe by creating celestial objects from the gravitationally collapsing matter such as stars including planets and our earth, on which plants and vegetation were grown or produced. To shine the stars, God assigned matter and light or massless radiation with duality of particle and wave. This leads to fusion reaction to occur in the core of stars and power emissions from the stars. The third day was the time period for God to form stars (lightness or day) including galaxies (seas of stars) and clusters (seas of galaxies) from the initial waters (darkness or night) and to create our planet, the earth, that grows plants and vegetation.

Overall, in the third day, God constructed the interiors of our finite black hole universe [4]. The work includes the formation of celestial objects by gathering the waters or gravitationally collapsing the initial super fluidal matter under the sky or inside the even horizon of our black hole universe. These formed celestial objects could be stars and planets called dry grounds or lands, in which matter is not in the water state any more, and galaxies and clusters called, respectively, seas of stars and seas of galaxies. Stars luminously shine on (or give off energy to) the world of matter when fusion occurs after particles of matter were assigned with the property of waves or the ability of quantum tunnelling of the Coulomb barrier. God further selected one land (i.e. our earth) for plants to grow and then for humans to live. In the third day, God constructed the interiors of our black hole universe to breed C, the child universes, which refer to star-like, massive, supermassive black holes. The third day was the day of our finite black hole universe. During this day the interiors of our universe such as stars, planets including our earth and moon, galaxies, and clusters were created and constructed.

2.4. The Fourth Day

The work done by God in the fourth day to create the solar system with our earth and lights to light the universe and our earth can be divided into two aspects. First, God made the stars and planets including their natural satellites such as the moon of our earth, which were created or constructed in the third day, to be lights that can emit (from their photospheres if stars) or reflect (by their surfaces if others) light, which here especially refers to the visible light, in our black hole universe (i.e. in the vault of the sky or within the event horizon) to separate the day from the night (i.e. from the darkness to the brightness). Our universe contains hundred billions of galaxies, each galaxy contains hundred billions of stars, each star has a number of planets including dwarf planets, thousands of comets, and billions of asteroids, and each planet may also have moons.

Then. God further created our solar system and made two great lights for the earth. The greater light is the Sun, which emits light from its photosphere and governs the day. The lesser light is the moon, which reflects the sunlight and governs the night. To our earth, the day and night governed by the Sun and moon are the earth day and night. This was accomplished by placing the Sun at the center of the solar system, enabling our earth to be revolving around the Sun once an earth year and meantime spinning itself about its own axis once an earth day, and making the moon to be revolving around the earth once about every earth month. God satisfied his work in the fourth day. It was a day to prepare the earth for plants to grow and for lives, especially humans, to live. Before the creation of lights to give light to our black hole universe (in the vault of the sky) and on the earth, everywhere in our black hole universe, including on the earth, was darkness i.e. there was the evening. After the creation of lights to give light to our black hole universe and to our earth, everywhere in our black hole universe, including on the earth, becomes brightness and thus there was the morning.

The Sun is our star and lies at the heart of the solar system. It holds almost all the masses of the solar system and emits electromagnetic radiation, especially visible light. There are eight planets revolving around the Sun and our earth is the third planet, five dwarf planets, thousands of comets, and billions of asteroids to be revolving around the Sun. The Sun also releases solar wind, a constant stream of electrically charged particles that mostly consists of electrons, protons, helium, and trace amount heavy ions or atomic nuclei. The solar wind may charge planets and induce magnetic fields for planets in accordance with their size and self-rotations. The geomagnetic field plays the essential role in protecting and maintaining our earth atmosphere and environment weather. The earth is our planet with mass about three millionth of the solar mass and radius about one hundredth of the solar radius. The earth atmosphere consists mostly of nitrogen and oxygen, one to two percent of argon and carbon dioxide, and trace amount of other gases. It has five major layers, which are, from lowest to highest, troposphere, stratosphere, mesosphere, thermosphere, and exosphere. The earth weather mostly happens in the lowest layer, troposphere, while the highest layer, exosphere, merges with the solar wind. The earth is our human's homeland, the only place in the universe where we know for certain that life exists. God selected the earth, a beautiful green planet, for plants to grow and for animals, especially human beings, to live by getting energy from the Sun. The moon is Earth's only natural satellite, as the lesser light, which gives light for our earth and governs the night via reflecting the sunlight. It has diameter and mass to be about one fourth and one eightieth of the earth, respectively, orbiting the earth at an average distance about thirty times the earth radius. The moon is tidally locked to the earth since its near side always faces the earth. Its gravity is the major cause of the tides of the earth ocean waters to be rising and falling twice of each daily. The moon has phases since the illuminated portion that we see changes as it orbits the earth. The moon as like the Sun has played an important role in the world culture and human civilization. The NASA spacecraft Apollo 11 first landed humans on the moon half century ago and our human beings will go to the moon again in the near future.

Overall, in the fourth day, God created solar system including planets, comets, and asteroids and generated lights including the Sun, the moon, and stars to give light to our black hole universe and our earth. To the universe, God made light emitters (stars including the Sun) and light reflectors (planets including their moons) to be lights that light our black hole universe and brought the universe from darkness or night without lights to brightness or day with lights. To our earth, God created two lights: the greater light Sun and the lesser light moon, which governed the day and the night of our earth, respectively. The Sun emits light and the moon reflects the light that the Sun emitted. Other stars serve as tiny lights to our earth for the night by placing them at large distances in the vault or within the event horizon. In the fourth day, God made lights to our black hole universe and created solar system including

the earth and moon to prepare homeland for human to live and plants to grow. God selected our earth, a beautiful green planet with an appropriate space weather environment system, for plants to grow and for animals, especially human beings, to live.

3. CONCLUSION

This synthetic article has comprehensively overviewed the full and self-consistent interpretation of the first four days of Genesis for God's creation of the universe, according to the author's well-developed black hole model of the universe. In the first day, God created the infinite entire universe with matter, motion, and light. In the second day, God structured the infinite entire universe intro infinite layers via gravitational collapse with setting light speed as the speed limit and further formed our finite black hole universe. In the third day, God constructed the interiors of our finite black hole universe to form stars including planets, galaxies, and clusters and further selected our earth for plants to grow and for humans to live. In the fourth day, God created solar system and made lights to light our black hole universe and our earth. God further made two lights, in which the greater light, the Sun, emits light and governs the day and the lesser light, the moon, reflects the sunlight and governs the night. Via the sequence of study, the author has shown that not only can the well-developed black hole universe model scientifically reveal the truth of the universe for explaining observations and overcoming cosmic difficulties, but also philosophically describe the beauty of the universe for simplicity and completeness and theologically interpret the book of Genesis for the love and creation of the universe.

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