

6 ADALAH

Buletin Hukum & Keadilan

The Connection of the Existence of God with the Physics Phenomenon

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Abstract:

One of the best pieces of evidence of physics phenomenon which could give us the description of the existence of God is Dark Energy. Dark Energy is an unknown form of energy that affects the universe on the largest scales, but until now, scientists have not proven exactly where the dark matter came from. One of the religions that beliefs in God are Islam. In Islam, God is a matter which we could feel but could not see.

Keywords: Dark Energy, The God, Islam

Abstrak:

Salah satu bukti terbaik dari fenomena fisika yang dapat memberi kita gambaran tentang keberadaan Tuhan adalah Energi Gelap. Energi Gelap adalah bentuk energi yang tidak diketahui yang mempengaruhi alam semesta pada skala terbesar, tetapi sampai sekarang, para ilmuwan belum membuktikan secara pasti dari mana asal materi gelap itu. Salah satu agama yang percaya pada Tuhan adalah Islam. Dalam Islam, Tuhan adalah masalah yang bisa kita rasakan tetapi tidak bisa kita lihat.

Kata kunci: Energi Gelap, Dewa, Islam

Prologue

Physics is one of the branches of science. In physics, we can study a lot of phenomena. One of the intriguing phenomena which can give us the fact of the existence of God is Dark Energy. Now until we don't know about the specific description of the dark energy. God is the big power like energy who created the universe but until now we don't know about the specific appearance of God. In Islam, we believe in God because of the verse of Al- Qur'an. So if we study physics phenomena deeply, we can understand that there is a big power that has contributed to the creation of the universe.



What is dark energy?

In physical cosmology and astronomy, dark energy is an unknown form of energy that affects the universe on the largest scales. The first observational evidence for its existence came from supernovae measurements, which showed that the universe does not expand at a constant rate; rather, the expansion of

the universe is accelerating (Overbye, 2017). Dark energy is accelerating the expansion of the universe. The cosmologists' standard model also predicts that within the first 10–32 of a second after the Big Bang, the universe doubled in size 60 times in a growth spurt known as inflation (Saifullina and Khabirova, 2016).

So in this case the universe is composed of dark energy 68%. The dark matter is a big power that could expand the universe after the big bang. The scientists have researched this phenomenon and the got some facts about dark energy:

- 1) Distance measurements and their relation to redshift, which suggest the universe has expanded more in the last half of its

life (Durrer, 2011).

- 2) The theoretical need for a type of additional energy that does not matter or dark matter to form the observationally flat universe (absence of any detectable global curvature).
- 3) Measures of large-scale wave-patterns of mass density in the universe.

It is very wonderful information about dark energy. We call "dark energy" because until now we don't know exactly where the energy came from. This energy is so strong and enormous. In physical cosmology and astronomy, dark energy is one of big question which needs to research deeply. But if we connect between dark energy and religion in this case with Islam. So it will be an interesting topic which makes us understand why we need to believe in God.

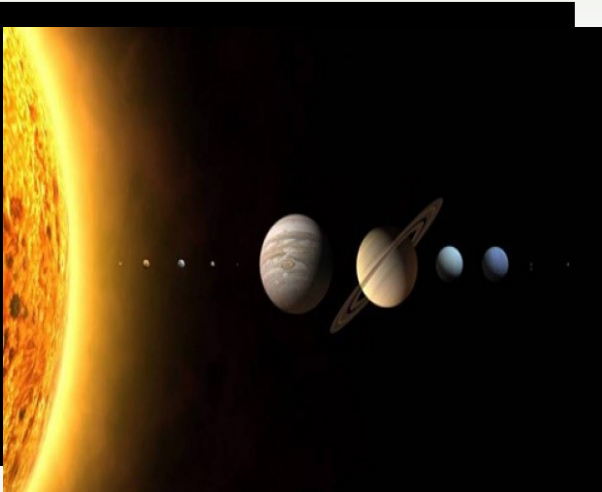
Dark Energy as the Phenomenon of the Existence of God

In Islam, we trust that there is a big power that contributed to the creation of the universe. This is God, but we cannot see directly because we can't see him. The human being just can feel that God exists and especially with Muslims who believe in Al-Qur'an. In Al Qur'an the God was written as the matter which can we feel and we cannot see directly. God gave a big contribution to our universe. He created the universe a million years ago.

Long before science developed, the Qur'an had explained the process of creating the heavens and the earth. Head of the National Aeronautics and Space Institute (LAPAN) Prof. Thomas Djamaluddin said that in the Qur'an, the process of creating heaven and earth is explained through the Big Bang theory. There are many verses in the Qur'an that explain the process of creating the heavens and the earth. Among other things, Surah Al-Anbiya 'verse 30, Surah Az-Zariyat verse 47, Surah An-Nazi'at verse 31, and Surah Fussilat verse 10. The Qur'an and the development of science always go hand in hand, not in opposition. The following four points explain more about the crea-

tion of heaven and earth.

After the explosion, the process of star evolution took place until the sun formed along with planetary order including the earth. The explosion event that occurred at that time was called $t = 0$, which became the beginning of the calculation of time and produced hydrogen. In the process of star evolution, hydrogen underwent a nuclear reaction to produce helium and form other elements in the universe. According to Prof. Thomas, various verses of the creation of heaven and earth are explained by the Big Bang theory according to current scientific developments. Therefore, a new theory might emerge that could also explain the verse.



The initial period was an explosion followed by the formation of stars which in the Qur'anic language was called the perfection of the sky. Interstellar dust and gas which in Fussilat verse 11 is called dukhan become denser. If the heat generated by the nucleus has ignited enough nuclear fusion reactions, then the star will shine. One day the star will explode and its elements become the constituent of

the next celestial body. In the Qur'anic language of the Big Bang theory, the development of nature, and the formation of stars is referred to as "He lifted his building (the sky) and then perfected it" in Surah An-Nazi'at verse 28 (Widiyani, 2019).

Epilog

So dark energy is like our God whom we cannot see but we can feel and the dark energy gave the universe a big contribution. The universe would expand because of dark energy. it means, there

is a connection between science and religion. If we study science deeply we can understand why we have to believe in God. There is no in the world which was created spontaneously. Then, if we believe in dark energy, it means, we should believe in God too. Because both of them exist but so difficult to describe them.

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