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The origin of the universe and cognition of matter

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Abstract

The origin and composition of the universe have always been a hot topic of research. After questioning, we boldly proposed the viewpoint of a cyclic universe, believing that the universe is cyclic in space and time, and there is no initial time when the universe originated. The universe is a solid universe, without a vacuum. In addition to planets and elementary particles, the universe is also filled with matter at a lower level than elementary particles and quanta. These viewpoints will further deepen our understanding of the essence of the universe and material composition.

Keywords

Origin of the universe, Big Bang, Redshift, Quantum.

1. Introduction

About the origin of the universe, the most popular viewpoint is the Big Bang theory first proposed by Georges Lemaître [1]. However, this theory still lacks empirical evidence and still encounters some difficulties in explaining some physical problems. Analyzing the origin of the universe from a different perspective may provide us with some inspiration, which will also help us further understand the essence of matter.

2. Cyclic universe in space and time

The universe should be a cyclic universe in space and time. The stars in the cycle universe are not at the same point in time, which means that we cannot observe the universe with one same time scale. This means that planets far away from the Earth can know what will happen on the Earth in the future, while planets behind the Earth in the cyclic universe can know what happened on the Earth before, and the length of time will be positively correlated with the distance from the Earth. The entire universe has no end and no beginning. The universe, along with time, is circular, with each being the beginning and the future of the other.

All the stars in the universe are at a certain point in this cycle universe, and the time points at which all the stars are at are different. We see distant planets because we receive photons from them. This photon comes to the Earth from another time point and is at the same time point as the Earth. Our understanding and observation of the universe are based on the assumption that the entire universe has the same time point. Perhaps it is not correct to adjust the clocks of the entire universe to the same time. In the entire cycle universe, time does not pass and there is no beginning. The time point of each planet is different. If we take this viewpoint, it is not difficult to explain the origin of universe, which is inferred from the redshift first found by Edwin Powell Hubble [2]. However, this is only because we mistakenly unified the cosmic clock to the current Earth time. If we use the clock of the universe's explosion as a reference, the universe has always existed and did not suddenly appear. The occurrence of the redshift phenomenon is related to changes in time and gravitational fields. It is not correct to calculate the redshift and the expansion of the universe solely based on changes in the wavelength and frequency of light. Because if the universe is expanding, what is expanding? Is it only the distance between the planets that expands? Because light is not emitted in a straight line, but rather scattered, the longer the distance traversed, the greater the increase in wavelength.

We cannot consider the shape of the universe to be circular, because if we define it as circular, then is the area outside the circle also the universe? Therefore, the universe cannot be defined in terms of shape. According to this, the universe should not have been created by the Big Bang. The meaning of the Big Bang is to become larger and expand. If it is believed that the universe has a size, it is difficult to understand what the reference substance of the singularity at the beginning of the universe was. If the universe is believed to have started from a singularity, what is beyond the singularity? Unless we believe that apart from the singularity, it's not the universe. If the universe is expanding, what is the space outside the expansion? This will be difficult to understand. Therefore, the universe has no shape, and the observed expansion of the universe should be a matter of time scale, not distance.

3. Universe full of matter

The composition of the universe should not be considered to be composed of dispersed planets and stars, but rather a solid universe. We define quantum as the universe is composed of elementary quanta. But this definition considers that between quanta there is non-quantum space. The composition of matter should not have a fundamental quantum unit. If it is believed that quantum has shape, what are the components that constitute it? Therefore, quantum should only be a level of material composition, rather than the smallest unit. The particles that make up the visible matter we see have different levels, and particles of different levels exhibit different characteristics. At the molecular level, it is different from the atomic level, and the mechanical and magnetic characteristics exhibited by protons and neutrons are also different from the atomic level. If further divided, the subatomic levels such as protons and neutrons can be further divided, and the characteristics they exhibit will be completely different. Therefore, the entire universe is filled with substances that are smaller than quantum and elementary particles that we cannot currently recognize. The characteristics of these substances are different from the particles and quanta that are currently recognized. The composition of the universe can be understood as a solid universe, where the universe is similar to an ocean and all the stars are similar to the organisms in the ocean. The water in the ocean can be understood as a lower level of matter that we currently cannot recognize.

4. Understanding black holes and quantum theory under cosmic theory

Black holes are formed by the collapse of stars. Due to the effect of gravity, the matter is attracted to each other and eventually condenses to an infinitely small size, forming what we perceive as a black hole [3]. However, no matter how small it is, a black hole does exist and it is not equivalent to emptiness. If we follow our previous understanding, black holes should be a close packing of elementary particles, which is contrary to the facts. Black holes are infinitely small, and elementary particles also collapse, collapsing into a smaller level of matter state. At this level, the characteristics exhibited by matter are different from those at the subatomic, quantum, and other levels.

In quantum theory, it is difficult to explain the super-distance action of quantum. If the universe is full of matter, it can be used to explain the super-distance action of quantum. Because the universe is solid, the super-distance action of quantum in the solid universe should be easy to understand. The transmission of super-distance force between quantum is transmitted through the material at a lower level than quantum in the universe. In addition, the gravitational force, strong interaction force and weak interaction force we are exploring should all be transmitted by this level of matter.

According to existing physics theories, there are two types of matter in the universe, namely, matter and anti-matter [4, 5]. However, when the two types of matter meet, they will turn into empty space. But this is hard to understand in explaining the disappearance of energy. It should be considered that when two kinds of substances meet, they do not completely disappear, but only the existence form of a certain level of substance disappears, and they become a smaller level of substance form, and energy also exists in this form, so energy does not disappear. Einstein's mass-energy equation is suitable for the quantum field and subatomic level, but not for a smaller level. At the quantum level, the disappearing mass becomes energy, which exists at a level smaller than the quantum.

Although we are unable to prove these speculations mathematically currently, this viewpoint will deepen our understanding of the universe and matter, and also help us analyze and question existing physics theories from different perspectives.

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