

# Scientific Cosmological Ontology

## —Using Cosmic Origin Philosophy to Resolve the Contradiction between Quantum Mechanics and Relativity

Samo Liu

China Occupational Safety and Health Association, Beijing, China

Email: Samo945@126.com

**How to cite this paper:** Liu, S. (2024). Scientific Cosmological Ontology. *Open Journal of Philosophy*, 14, 628-648.  
<https://doi.org/10.4236/ojpp.2024.143043>

**Received:** June 25, 2024

**Accepted:** August 2, 2024

**Published:** August 5, 2024

Copyright © 2024 by author(s) and Scientific Research Publishing Inc. This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

---

### Abstract

The writer is an engineering science technician. Based on the epistemology and methodology of materialist dialectics, understanding the thought of the universe origin of Taoist philosophy and Buddhist philosophy, and combining the modern scientific information of modern physics, system science and physical cosmology, the author has put forward a series of new ideas on the universe origin. The new scientific universe ontology calls on the scientific community to prove and explain the origin of the universe with science, solve the doubts of the theoretical scientific community about quantum mechanics, realize the scientific understanding of the universe space and the existence in space, create new ideas and understanding of space and time, and create a new universe view. This is not only the inspiration and verification of modern science to the primitive thought of the universe of our ancestors, but also a new method to solve the contradiction of modern physics, which inspires human beings to think about survival and existence.

### Keywords

Cosmic Origin, Ontology, Basics Energy, Intelligent Energy, Matter, Energy, Information, Philosophy, Science, Metaphysics, Quantum Mechanics, Relativity

---

## 1. Preface

Quantum mechanics and relativity are widely used in engineering science. In theory, however, it is considered contradictory. The study shows that this contradiction is not a contradiction of science, but a contradiction of philosophical thinking. Human philosophical thinking is based on the fact that the universe is material. Physical cosmology tells us that the vast majority of existence in the universe is immaterial, accounting for about 95% of the composition of the universe

(Ohguri, 2016). Then, human thinking should be transferred from materialistic thinking to the thinking of the origin of the universe. The universe is a collection of material and immaterial things. (Liu, 2024a) Research basis, Taoist philosophy and Buddhist philosophy of the origin of the universe thought.

Research methods: materialist dialectics, philosophy of the origin of the universe. According to the practice of engineering science, it studies the origin of matter, the origin of force and time, and the nature of space.

Research purposes: Resolving the theoretical contradictions between quantum mechanics and relativity. To establish a new scientific cosmology of human beings and reshape human thinking.

The author's profession is to study stones. Since childhood, he has been interested in thinking about the "existence 有" and "non-existence 无" of Taoism, and the "emptiness 空" and "Du 度" of Buddhism. In the practice of science, science and philosophy are combined together, and the thought of the universe origin of Taoist philosophy and Buddhist philosophy handed down by our ancestors is earnestly studied and realized, so as to form a scientific thought of the universe origin.

Research the origin of universe and human, and disprove the ancestors' thought of the cosmic origin with science. He studied materialist dialectics, used the logical thinking of dialectics, and disproved scientific conclusions with the primitive information of the universe left by his ancestors, and wrote six books. (Liu & Liu, 2020; Liu & Liu, 2021a; Liu & Liu, 2021b; Liu & Liu, 2021c; Liu & Liu, 2021d; Liu & Liu, 2024).

Liu & Liu (2020) and Liu & Liu (2021a) Beings connect modern science with Taoist philosophy, Buddhist philosophy and ancient Greek philosophy to reflect and verify each other with the logic of materialist dialectics. The main conclusions are: human beings are material, living in the so-called three dimensions of matter, the original substance is 0 dimension of non-material. The universe in which human beings live is a collection of material and immaterial, and the concepts of basic energy and intelligent energy are designed according to the thought of the "I Ching". (Liu & Liu, 2020) Human beings are computer-like substances created by the universe. They have two kinds of hearts given by the universe, which can exist twice, and have two kinds of hearts of demons and gods at the same time. Everything that human beings can express with language, words and numbers is artificial existence, not absolute truth. (Liu & Liu, 2021a)

Liu & Liu (2021d) uses modern science to verify and reflect on the thought of the origin of the universe in Taoist philosophy. The main conclusions are: matter comes from "nothing 无," "nothing 无" also comes from "nothing 无," the highest law of the universe is balance. (Liu & Liu, 2021d) believe that human beings can only worship space and cannot study space for the time being.

Liu & Liu (2024) examine and reflect on the thought of the origin of the universe in Buddhist philosophy with modern scientific information. The main conclusions are: matter comes from "emptiness 空", "emptiness 空" also comes from "emptiness 空", and the proper principle of human thought is the Middle Way

中道. (Liu & Liu, 2024) argue that there is no contradiction between quantum mechanics and relativity.

Liu & Liu (2021b) uses materialist dialectics, modern physics and the idea of the origin of the universe to prove that both material and immaterial beings are alive. They all come from Yin 阴 and Yang 阳, go to Yin 阴 and Yang 阳, there is a soul, and there will be mutual relations and contradictions.

Liu & Liu (2021c) based on quantum mechanics, the basic principles of modern physics and thinking about the origin of the universe, Reflection and proof of absolute space and 0-dimensional universe. It is believed that human beings know the three-dimensional space, but also must know the 0-dimensional space, which is the key to solving the contradiction between quantum mechanics and relativity, cannot be qualitative, and can only be defined: space is the mother.

Wrote Reflections and Reflections of Modern Physics on Humanity (Liu, 2017; Liu, 2019; Liu, 2020a; Liu, 2020b; Liu, 2021d). Reflecting on space and time with the history of science and philosophy, he wrote a meditation on absolute space (Liu, 2020a; Liu, 2021a; Liu, 2021b; Liu, 2021c). With the idea of the origin of the universe and the principles of physics, understand that the existence of the universe is a collection of material and immaterial beings, is matter, energy, The collective existence of information, affirming that all beings are alive, that space can be expressed not only in three dimensions but also in zero, and that humans are the computers that created the universe (Liu, 2024a; Liu, 2024b; Liu, 2024c; Liu, 2024d; Liu, 2024e; Liu, 2024f).

In the process of writing, refer to the Taoist philosophy, Buddhist philosophy, Western philosophy and science of a large number of books. Because other references in this area have not yet been found, so in the reference materials of this article, I mainly refer to the articles and books written by myself, and refer to some other books. The way of reference is based on understanding, not out of context.

Main points:

#Space is the matrix of all existence, and the human expression of space is the expression of the form of existence.

#Force and time, is the presence of information, the presence of immaterial divinity.

#Energy is an immaterial state of existence of matter conditioned by force and time.

Thus, the following ontological discussion of the universe takes place. Think about the theoretical contradictions in modern physics, which in fact do not exist. In other words, the theoretical contradiction between quantum mechanics and relativity may be a big joke in the history of human existence.

## 2. Summary of Thoughts on the Origin of the Universe

The title of this paper is “Scientific Ontology,” not because the author assumes that the thoughts on the origin of the universe are scientific but rather calls for or advocates the scientific community to verify and participate in the aforementioned

thoughts on the universe's origin, proving or disproving them. The thoughts on cosmological ontology or the origin of the universe fall under philosophical thoughts and occasionally include metaphysical content. Here, Taoist and Buddhist thoughts on the universe's origin, as well as ancient Greek thoughts and dialectical materialism, are explained using modern physics, systems science, and physical cosmology. This integration is a blend of scientific and philosophical information and is a form of scientific thinking. The conclusions of modern physics, quantum mechanics, and relativity have already formed a perfect scientific connection with the thoughts on the universe's origin left by our ancestors, providing a scientific explanation and connection (Liu, 2024a; Liu, 2024b; Liu, 2024c). The scientific community cannot remain indifferent to this connection. Science, as a great human practice or human-made existence, has undergone over 2000 years of arduous exploration. Material science has reached its peak. This peak's scientific discovery, quantum mechanics, and relativity have both contradictions and open the door to the origin of the universe or cosmological ontology (Liu & Liu, 2020; Liu & Liu, 2021a). To put it bluntly, classical physics, quantum mechanics and the theory of relativity are the scientific basis of the ontology of the universe. (Liu, 2024a; Liu, 2024b; Liu, 2024c)

Philosophy or metaphysics, when explaining the origin or ontology of the universe, often limits itself to concepts rather than scientific rationality. Without the information from mechanics, time, quantum mechanics, relativity, and other modern sciences, it is impossible to find the logical relationship between the concepts and essence of existence in the universe (Liu, 2017; Liu, 2019; Liu, 2020a; Hegel, 2019). Once science opens the door to the origin or ontology of the universe, we should return to the scientific spirit of ancient Greek Thales (circa 624-546 BC) to guide humanity in re-understanding the universe. (Liu & Liu, 2021b; Liu & Liu, 2021c)

According to the thoughts on the universe's origin or ancestral teachings, humanity's creation of science has reached a stage today where contradictions will be created, discovered, and modern physics' contradictions will emerge. Material philosophy has been a long-term consideration for humanity, and this consideration will become a node in human survival and existence, affecting the survival and existence of humanity. (Liu & Liu, 2020; Liu, 2024f)

The teachings of our ancestors and the three major laws of dialectical materialism indicate that the integration of material philosophy and material science that humanity has experienced will inevitably lead humanity to the peak of contradiction, which is reflected in the contradiction between quantum mechanics and relativity in modern physics and the current state of human survival. Humanity must break free from the shackles of material philosophy and repair human thinking and cognition with thoughts on the origin of the universe, otherwise, it is impossible to break out of this dilemma. (Liu, 2021a; Liu & Liu, 2021d)

Facing the troubles caused by material philosophy, the author cried while writing the fifth discussion on the universe's origin and even sang the International

Anthem. This is useless. We must inspire every individual's thinking, let science intervene and take action, which is what Master Wang Yangming called the unity of knowledge and action 知行合一. (Wang, 2018) Science must intervene in the thoughts on the origin of the universe, and science must take action. Everyone must think and become a comprehensive thinker of material philosophy and the universe's origin, re-organize human thoughts and thinking from the perspective of the entire universe, from the perspective of human survival and existence. Only then can humanity break out of the dilemma and become its own savior. (Liu, 2024f)

### 3. Is Humanity Smart Thinkers or Big Fools?

The universe created humanity and uniquely endowed humans with the function of perception and subjective consciousness, allowing humans to create and judge information. Is humanity smart or foolish? Stones can perceive but do not think; animals can think, but how do animals evaluate humans? We do not know. Therefore, only humanity can judge whether it is smart or foolish. This is a philosophical question that is actually a very practical and interesting scientific question. (Liu, 2021a; Liu, 2021c; Liu, 2024c; Liu & Liu, 2021a)

#### 3.1. Space and Dimension Issues

This issue is a major topic of scientific and philosophical thinking. Our ancestors seriously thought about this problem using scientific philosophical methods and concluded. (Liu, 2021a; Liu, 2021b; Liu, 2021c; Liu & Liu, 2020) In the history of science, Newton and Leibniz seriously considered this problem. Newton thought deeply about this issue in the "Mathematical Principles of Natural Philosophy," defining the concept of space as absolute space, relative space, and place. (Newton, 2017) Leibniz seriously debated with him, and they reached scientific conclusions. (Leibniz, 1996)

However, material philosophical thinking led the scientific community to easily abandon the concept and idea of absolute space because the existence of matter cannot describe the spatial state in the absence of matter, resulting in contradictions in modern physics. The study of M-theory or the mathematical research on the extensibility of four-dimensional space has led to a form of alienation in human thinking about space. However, it inspired a mode of thinking about space using dimensions: what state exists when time is zero and the material dimension is zero? This mode of thinking had no logical and scientific basis before the emergence of quantum mechanics. (Liu & Liu, 2020) Although our ancestors have left many expressions of cosmological ontology.

Quantum mechanics clearly tells us that atoms originate from energy particles (fermions) and information particles (bosons). Physical cosmology tells us that there is a non-material existence called dark matter and dark energy in space, occupying about 95% of space. (Ohguri, 2016) Therefore, when quantum mechanics and relativity contradict each other, we must shift our material philosophical

thinking about the universe from being based on matter to the philosophical thinking about the origin of the universe based on space and existence in space. Absolute space is no longer a conceptual problem or a void but an objective and real existence in the universe: material space can be expressed in three dimensions, and the original space of the universe is zero-dimensional, but the expression of space cannot be qualitative (Liu, 2024a; Liu, 2024b; Liu, 2024c; Liu, 2024d; Liu, 2024e; Liu, 2024f). We must revere space and respect space.

Existence in the universe is a living existence. Humans created the concept of time to measure the process of all existence, regardless of whether this existence lasts long, like stars and galaxies, or short, like particles. Humanity created the concept of thermodynamics, so all energy and material existence are thermodynamic existences. (Liu, 2024e; Liu, 2024f) The force (原力) is the primal force of the creation of material energy existence, the fundamental force. Thermodynamics is synonymous with physical existence. (Liu, 2024e) Quantum mechanics and relativity are widely applied in engineering science and applied science. However, we still believe there are contradictions between them, which is a human-made contradiction. (Liu, 2024a; Liu, 2024b) This contradiction influenced scientists and the entire humanity from Aristotle and Descartes to Einstein due to the influence of material philosophy.

Who confirmed that space is three-dimensional or high-dimensional? Material philosophical thinking has fooled material science and, in turn, fooled all of humanity. Humanity is not foolish but has made a glaring error. The existence of space is determined by the existence and distance of objects. We cannot consider the universe's space to be the space domain of material existence and then confirm that space is the three-dimensional existence of matter. (Liu, 2024a; Liu, 2024b; Liu & Liu, 2021b). This is the extreme stupidity of human thinking.

How can non-material existence or other forms of existence express space? (Liu, 2024a; Liu, 2024b)

As material humans, using the three-dimensional coordinate system standard to call space three-dimensional is necessary for scientific calculations. However, confirming that space is three-dimensional or even expanding it to higher dimensions is an error and foolishness. Why would humanity do this? Aristotle's material philosophy made humanity smart but also foolish. (Aristotle, 2019; Aristotle, 2016) It has made humanity foolish for over 2000 years. In our wisdom, we created material science, reached the peak of material science, and discovered that our understanding of the universe's true existence was foolish. Energy's existence is non-material, can it be expressed as zero-dimensional space? (Liu, 2021a; Liu, 2021b; Liu, 2021c; Liu, 2024a; Liu, 2024b)

Smart and stupid are artificial terms, with no positive or negative meanings. Aristotle is great, he created the concept of material philosophy, material science, is the choice of human helpless thinking in the case of insufficient scientific information. Undoubtedly, this choice is the historical progress of mankind.

If there is other non-material information in space, such as force and time

information, neither material nor energy, (Liu, 2024b) what form should we name the space? A simple question can easily lead humanity to a serious logical error and foolish thinking (Hegel, 2019). This is caused by the human mind installed by the universe. Material philosophy made humanity forget the origin of the universe and its mother. In studying the universe's ontology, humanity deviated from the ontology. (Liu, 2024f)

The origin of matter and humanity is the universe that arises from nothing 无. Matter undergoes thousands of kalpas (劫) of existence, movement, and change, originating from emptiness 空 and returning to emptiness 空. (Liu & Liu, 2024)

Humanity must continuously study and breakthrough information. Without quantum mechanics, relativity, physical cosmology, and systems science, Materialist dialectics, despite our ancestors repeatedly emphasizing that space is empty, we cannot scientifically prove it. We cannot break out of the material philosophy and material science cycle, affecting modern physics, science, and possibly all of humanity's existence. The fundamental issue of physics is the problem of existence in the process of time, a thermodynamic problem. (Liu, 2024e; Planck, 2019)

### **Coordinate Systems and Calculus**

The coordinate system, created by Descartes, is a great mathematical invention by humanity. (Descartes, 2019) Calculus, created by Newton and Leibniz, is another great mathematical invention by humanity. These two pieces of information are great human creations of information. As mathematical tools, we have used coordinate systems and calculus to their fullest extent in the material world. However, we have forgotten the great principle left by the ancient Greek philosopher Pythagoras (circa 580-500 BC), "All things have numbers 万物有数, space has no numbers 空间无数," and the teachings of our ancestors in our applications. (Liu & Liu, 2021d)

Humanity's great creativity has used mathematics to its fullest extent in the material world and material philosophical thinking and the development of material science. In the material world, we cannot do without mathematics. However, as engineering technology practitioners, scientists know very well that coordinate systems and calculus are merely tools for human applications. If applied to space research, they are only suitable for the application of the material universe and the three-dimensional universe. They are very useful. However, in their application, there is a phenomenon where engineering technicians sincerely use them as tools, while theoretical scientists are easily trapped in this tool's shackles. For example, the M-theory and all studies using mathematics for pure spatial research are such phenomena, representing an alienation behavior restricted by material philosophy. When great scientists exhibit such foolish behavior, it is equivalent to leading all humanity into a realm of foolishness. (Liu, 2024f)

Socrates, Plato, and Aristotle were wise. When realizing that human thinking could be restricted by contradictions, they led humanity to abandon the contradictory thoughts of the universe and focus on human society and the material universe. This undoubtedly led humanity to a wise state. Humanity has been wise

for over 2000 years, reaching the pinnacle of material science and material philosophy, only to discover that we have become foolish in our wisdom because we cannot break out of the cycle of material philosophy and material science, leading to doubts about quantum mechanics. Quantum mechanics, which is known for guiding human material progress and survival, has been doubted due to the influence of material philosophical thinking and the great master Einstein. (Einstein, 2020)

So, the thinking of our entire scientific community is imprisoned by the material philosophy of the three-dimensional universe, and we are questioning the great existence and truth of quantum mechanics. The fundamental reason is that we have been shelved about space in the name of science for more than 2000 years, the origin of space, the nature of space, we forget space, and even dare not think about space. (Liu, 2024b) Space can make humans feel small and ignorant.

When the author's thoughts on these issues were rejected by some so-called top scientific journals, the author realized the severity of the problem. This means that humanity will refuse to admit it is foolish, but in fact, it has become very foolish. The author has written five articles exploring the origin of the universe, six books, and an open letter to the scientific community, (Liu, 2024d) hoping for empirical evidence or falsification from the scientific community, wishing that this kind of thinking and understanding is wrong. The author hopes that humanity is not foolish.

### 3.2. Thermodynamics and Living Existence Issues

Humans always consider themselves to be living while thinking that other things, like stones, are not alive. However, the thoughts on the universe's origin left by our ancestors tell us that all things are living, and all existence is living. The principles of thermodynamics in physics also tell us that all existence, whether material energy or matter, is living. They are in eternal motion and change, including dark energy and dark matter, which are not even material energy existences. Because the universe within our horizon is not at absolute zero degrees. (Liu, 2024a; Liu, 2024e; Longair, 2017; Ohguri, 2016) Because there is an intelligent energy or information in the universe.

Thermodynamics tells us that in the material universe where humans exist, humans cannot create perpetual motion machines or achieve absolute zero. However, all existence in the universe is a perpetual motion machine. (Liu, 2024b; Planck, 2019) So, is there an absolute zero in the universe? According to the principles of the origin of the universe, there should be, and there must be. Therefore, the concept of fundamental energy and intelligent energy was designed as the basic concept of yin and yang in Liu & Liu (2020). It is the basic concept of the Taoist and Buddhist philosophies that 0 begets One, one begets two, two begets three, and three begets all things, which are the basic structure of yin 阴 and yang 阳 of causes 因 and factors 因素. Existence, because disequilibrium arises in the universe, and ultimately in order to balance, the natural law of thermodynamics is equilibrium.

All existence, not just information, energy, and matter, but also unknown existences, are cyclical, when absolute zero is zero, all existence ceases to exist, or unknown existences to humans, you might call it cosmic balance.

The universe still exists, changes, and cycles. Stars and galaxies are moving, changing, and existing. This is material. Quantum mechanics shows that all energy particles and quarks are existing, moving, changing, and cyclical. This is the non-material existence of material energy. Further thinking about dark matter and dark energy, they are also existing, moving, and changing. They are the primordium of all things, creating, changing, and balancing in yin and yang. (Born, 2023)

Further thought might be about the existence of absolute zero. Humans know even less about this kind of existence. So, not only are humans alive and existing, but all things in the universe and all existence in the universe are the same. Humanity created the concept of the time process and the concept of thermodynamic existence. However, humans have two opportunities for existence, which might be a feature of life cells given by the mother of the universe. Therefore, thermodynamics is the force of creation, the original force. Physicists and mathematicians should prove or falsify this point. (Liu, 2024d; Liu, 2024e)

A clear logic is that all existences have souls and are living. (Liu, 2024a; Liu, 2024b; Liu, 2024d)

### 3.3. On the Relationship between Space and Existence

Time is a great human creation of process information for existence. The concept of time has become a process concept for describing all existence. However, after creating this information, humans still do not know what this information is, whether in the scientific or philosophical community (Liu, 2024a)

What exactly is time? We created this concept but are confused by it. Time is nothing. It is merely a creative human concept for the process of existence. Our ancestors told us this information is a process of existence truth in the universe, but we still do not know what it is. When the CIPM (CGPM) defined the concept of a “second” using modern physics, (13th CGPM, 1969) we discovered that our basic definition of the time process was determined by the original vibrational frequency of an atomic creation. We suddenly realized this might be the origin of time, the precise origin of the process concept created by modern physics for humanity.

Since modern science has defined the vibrational frequency wave of atoms' creation state as the new concept of time, why can't we find other atomic phenomena according to the thoughts on the origin of the universe left by our ancestors? (He, 2022; Zhuangzi, 2017) Is there such a vibrational frequency wave at the time of atom creation? Then verify it using probability statistical principles. However, this relates to all mechanics, as it determines the direction of existence. It is the directionality of time and thermo dynamics (Liu, 2024a).

Since we created the concept of time, a great piece of information, and modern science has traced it back to the original vibrational wave of matter creation, why

can't our science continue along this path? Our ancestors have left this thought process for us, which is another great information innovation. (Liu & Liu, 2021b)

Taoist and Buddhist philosophies have provided us with a framework of thought. Modern physics has verified the cause of time related to mass, weak force, and all mechanics. This is the fundamental principle of the universe's existence, creation, change, and cycle. Science should prove or falsify this. (Liu, 2024a; Liu & Liu, 2024)

Space is the mother of all existence. There is the existence of yin and yang and contradictions in space, with the ultimate goal of achieving a thermodynamic cycle and balance. (Liu & Liu, 2021d)

Dark matter and dark energy are existences, particles, bosons, fermions are existences, matter is an existence, and humans are an existence, all created by the mother of space. They are existences from nothing, cyclical existences.

Clarifying the relationship between space and existence is humanity's responsibility. Perhaps it is also the responsibility of aliens. It is the responsibility of human scientific and philosophical thinking. If we cannot clarify these relationships, we will fail the universe's hope for human existence. Of course, the universe never expects anything.

### 3.4. Issues of Human Survival and Existence

Humans exist. We all hope to live and exist happily, not troubled or distressed. However, humanity is creating its own contradictions, distress, and troubles in survival. Human existence is to solve the contradictions of human survival that cause trouble and distress.

The universe has given humans the cause of material desires, commonly known as demonic cause, and the cause of the universe's origin, commonly known as celestial and Buddhist cause. (Liu & Liu, 2020; Liu & Liu, 2021a) There is no connotation of praise or derogation. Both are contradictory but are contradictions of human survival and existence. Humans must face, resolve, and create contradictions and must solve contradictions.

The universe is contradictory and has yin (阴) and yang (阳). All things exist in contradictions and yin and yang. Humans are no different. Humans have perceptions and subjective consciousness and will amplify contradictory information. This perception and subjective consciousness will expand the understanding and grasp of universal information and create contradictions and contradictory information. (Liu, 2024c) However, the highest principle of human existence is how to solve contradictions, overcome contradictions, and move toward the future in the process of solving contradictions.

## 4. On Cosmological Ontology

Cosmological ontology has always been regarded as a philosophical theory with metaphysical content. According to the author's research, before the emergence of relativity and quantum mechanics, there was no modern physical knowledge

such as modern physics, systems science, and physical cosmology. We could regard it as a framework of philosophical thought, but modern science can already explain the issue of cosmological ontology, so it should become scientific cosmological ontology. (Liu, 2024a; Liu, 2024b; Liu, 2024c; Liu, 2024d; Liu, 2024e; Liu, 2024f)

From the content of the “Foreign Philosophy Dictionary” edited by Feng Qi, we can understand that: (Feng, 2008)

In a broad sense, cosmological ontology refers to the ultimate nature of all reality, which requires epistemology to understand. Researching the ultimate nature of all actual existence is ontology, while researching how to understand the theory of cosmological ontology is epistemology.

Narrowly understood, cosmological ontology includes the study of the origin and structure of the universe and the study of the nature of the universe, referred to as cosmology and ontology.

Dialectical materialism does not adopt a method that contrasts ontology and epistemology or ontology and cosmology but rather a dialectical and unified understanding of cosmological ontology.

Here, based on Taoist and Buddhist philosophies, guided by dialectical materialism, and using modern physics and modern science, systems science theories, and real-world information as a basis, we explore and think about cosmological ontology, referred to here as the universe’s origin. (Liu, 2024a)

The universe’s origin is the scientific and philosophical thought left by our ancestors, which can be linked with modern science, modern physics, and systems science and should be verified or falsified by the scientific community. The entire series of scientific philosophical connections in the thoughts on the universe’s origin is systems science information theory. The thoughts on the universe’s origin are scientific philosophical thoughts, and science should participate in this great scientific practice and information, verifying the theory both theoretically and practically as scientific cosmological ontology.

#### **4.1. Buddhist Thoughts on the Universe’s Origin and Ontology**

In epistemology, Buddhism has three terms: real knowledge 实相般若, observational knowledge 观照般若, and textual knowledge 文字般若.

Real knowledge refers to the objective existence of the universe, regardless of whether there are humans or human-made existences like language, text, and numerical expressions, It’s that kind of existence. Observational knowledge should be a scientific rational epistemological method left by our ancestors. (Liu & Liu, 2024; Liu, 2021a; Liu & Liu, 2021c) When all epistemologies become textual knowledge, they become human-made existences. In other words, only humans, as a special material created by the universe, explore the universe’s ontology, existence, and origin. All this is human-made information existence created for human survival and existence, whether it be science, religion, or philosophy. (Liu & Liu, 2021a)

In the understanding of ontology, Buddhist philosophy holds that the ontology and origin of the universe are emptiness, that is, space. Everything originates from emptiness and returns to emptiness, and this emptiness refers to both space and the empty nature of existence, which is the cause and condition of energy and information. This existence has directionality, and in this directionality, matter and humans are born (Liu, 2024a). Of course, it also creates human-made information existence. However, human-made information existence is not necessarily the true ontological existence of the universe but an exploratory existence, a cognitive existence. It is an eternal exploration of human survival and existence. The so-called truth is a relatively human-made truth. Therefore, the author refers to the original spatial existence as zero-dimensional space, which should be the absolute space explored by Newton and Leibniz (Liu, 2021c). The cause and condition of existence in space are designed as basic energy (基础能量) and intelligent energy (智慧能量). These two are interdependent and inseparable, creating and resolving contradictions naturally. (Liu & Liu, 2020) Therefore, Buddhist philosophy particularly emphasizes that humans must take the middle way in epistemology. (Liu, 2024b; Liu & Liu, 2024)

Hence, the origin of the universe is the origin of all material, energy, and information existence. It is the mutual cause and condition of causes and factors in zero-dimensional space, leading to the birth and directional change of existence, with the direction being balanced. (Liu, 2024a)

## 4.2. Taoist Thoughts on the Universe's Origin and Ontology

In epistemology, Taoism believes that all existence in the universe is called Tao (道) or Great (大) (Liu & Liu, 2021d). When humans describe it with language, text, or numbers, it is called Te (德), collectively referred to as Tao and Te. Tao and Te, similar to the Buddhist concepts of Dharma (法) and Appearance (相), are observational or textual knowledge. Once they form language, text, or numbers, they become human-made information with subjective consciousness. (Liu & Liu, 2021a)

Taoist philosophy, in the understanding of the universe's ontology, holds that all existence originates from the void (无) in space, that the void creates the existent, and that the existence in the universe has a yin-yang (阴阳) structure. Many theories and practices on this topic were eventually elucidated by Zhou Dunyi's "Taiji Diagram Explanation 太极图说" and Zhu Xi's Yin-Yang Taiji Theory 理学. (Zhou, 1990; Zhu, 2008)

In the existence of yin and yang, the roots all originate from the ancient Chinese classic "I Ching." In yin and yang, it is not simply the interaction of yin and yang but the mutual action of the five elements' (五行) generation (生) and control (克). There is directionality, and the directionality is time (Liu, 2020b; Liu, 2024a). There is also a dominant factor, the core of existence, which is that all existence has a soul. Wang Yangming ultimately elucidated this with the study of the mind (心学). (Wang, 2018) All existence is living and has a soul. Leibniz's "Monadology" and the

Buddhist “Heart Sutra” also describe this. (Liu, 2024d; Liu, 2024f)

The origin of existence is an empty void nature, the essence of being infinitely large 其大无外 and infinitely small 其小无内, which is the true origin of space. Space and the existence within it are called the universe. (Liu, 2024a) The universe and all things in the universe are living existences, soulful existences. The soul is time and mechanics. Existence is born with directional creation in time and exists, moves, and changes in mechanics. The highest principle is to achieve balance, the balance principle of the universe. (Liu & Liu, 2021d) Matter and humans are merely process existences in this balance process, existing in change. The process of existence is named time by humans. The principle and expression of existence are human-created concepts of thermodynamics in physics. Thermodynamics is a great power expression of creative movement and change in existence. All forces can be expressed by thermodynamics. (Liu, 2024e)

### 4.3. Scientific Explanation of the Universe’s Origin and Ontology

Quantum mechanics and relativity do not contradict each other. They both explain the great ontological theory discovered by humanity: the atomic material energy structure and mass structure originate from non-material energy and information, that is, particles, fermions, and bosons. In other words, matter under certain informational conditions, such as the speed of light, is equivalent to energy or returns to energy. The speed of light is comprehensive information of force and time. Such a simple and clear principle of the universe’s origin, why does science treat it as a contradiction? Is material science fooled by material philosophy?

The parameters of the physical universe,  $95.1\% + 4.9\% = 1$ , is a scientific expression of the combination of material and non-material existence in the universe, and also a scientific conclusion of the “Tao Te Ching” and the “Diamond Sutra.” The principles of information science in systems science and the equilibrium theory in modern physics can refer to the scientific logic expression and explanation of Taoist philosophy, Buddhist philosophy and ancient Greek philosophy. (Liu, 2024b; Liu, 2024e; Liu & Liu, 2021d; Liu & Liu, 2024) The matter and energy of the material universe can be transformed into each other under the condition of information, so the law of conservation of mass and energy is true in the material universe. Not, however, in the primordial thought of the universe. Because in the original thought of the universe, energy and information can be infinite or infinitesimal. There can be material existence or there can be none. The reality is that both matter and man exist, and exist absolutely.

The definition of “second” by the CGPM can be linked with the time concepts in Taoist philosophy and the existence and creation of time, the relationship between time’s directionality and mass, (13th CGPM, 1969; He, 2022; Zhuangzi, 2017) and the relationship with weak force. It is a precise scientific expression of information.

Modern physics, modern science, and systems science, human scientific understanding of the universe, and the universe’s origin thoughts and ontology of

Taoist, Buddhist, and ancient Greek philosophies can be perfectly linked. Now, the only step left is for the scientific community to prove or falsify this matter. (Liu, 2024d)

## 5. The Journey of Thoughts on the Universe's Origin

Essentially, thinking about the universe using the thoughts on the universe's origin, the universe is very simple. The creation of information by humans and the concepts of material philosophy and material science make the universe complex. However, without complexity, sufficient information for cosmological ontology cannot be generated.

The universe is empty, of an empty nature, and divine. However, this emptiness is filled with energy or the concept of energy, called basic energy 基础能量 and intelligent energy 智慧能量, the concepts of yin 阴 and yang 阳, the existence of yin and yang, a living existence. The universe is alive, creating existence, and all created existences are living hot existences, whether material or non-material. (Liu, 2024e)

The understanding of the universe's origin thoughts left by our ancestors is the admiration of an engineering science doctor for the ancestors and their thoughts on material philosophy and material science. Material science and material philosophy information inspired the understanding of the universe's origin thoughts left by our ancestors, reflecting an engineering scientist's loyalty to material science and material philosophy. This loyalty inspired the understanding of emptiness 空 and nothingness 无 and the understanding of the universe's origin 宇宙本原.

The author has liked thinking about emptiness and nothingness since childhood. In reflecting and critiquing the thoughts left by the ancestors, the author fell in love with the philosophical thoughts and culture left by the ancestors. The author's work involves the development and research of stones. Stones are very hard, and one of the hardest stones, called diamond, is said in the "Diamond Sutra" left by Buddha to be not the hardest; the hardest is the empty nature, which is human thought. (Liu & Liu, 2024)

Aristotle created material philosophy and material science, forming a great human thought on material philosophy and material science. (Aristotle, 2016; Aristotle, 2019). When publishing articles like "Zero-Dimensional Universe," some editors said that this thought subverts human thinking. Human thinking cannot easily accept the zero-dimensional universe or the thoughts on the universe's origin because human material philosophical thought is harder than diamond. The contradiction between quantum mechanics and relativity is a philosophical contradiction. Science is blinded by material philosophy.

This issue is a contradictory issue. The existence of contradictions itself is a contradiction in modern physics, requiring quantum mechanics scientists to prove whether particles, energy particles, fermions, and bosons are material or non-material. Confirming the non-material nature of information and energy. Using science to judge the existence in space and then thinking about the

problems of space and the origin of the universe.

Information and energy are non-material existences. However, human-created language, text, and numerical human-made existences treat matter, energy, and information as material. Although matter is equivalent to energy under certain informational conditions, like  $E = mc^2$ , matter is matter, and non-material is non-material. Energy and information are non-material. However, the non-material existence may not be calculable using complex mathematical principles because it is an empty, zero-dimensional existence, possibly solved by probability theory and data statistics. Thoughts on the universe's origin are the perceptions and logical thinking of an engineering scientist during scientific practice combined with the theory of the universe's origin. (Liu, 2024b)

M-theory is a high-end mathematical theory. However, it can only be used for calculating material existence, not for space calculation. The scientific and mathematical communities can pose a question, what is zero? Why did we create the number zero? How should we prove the existence of zero? What is zero? This is a solemn question from an engineering scientist to the theoretical scientific community.

Without defining the problem of 0, there is no basis for thinking in a coordinate system.

### **5.1. The Research and Thinking on Stones Led to the Thoughts on the Universe's Origin and Scientific Ontology**

The author's most of life has been about developing and researching stones. Stones are composed of molecules and atoms in the process of combination. The chemical bond force and time cause that combine atoms and molecules. The chemical bond force is not a single force but a combination of electromagnetic force, thermal force, gravitational force, and all other forces in time. (Liu, 2024a; Liu, 2024b)

Atoms and molecules are factors, and force and time are a kind of cause that combines stones. The combination process is a kind of cause and condition.

Similarly, molecules are composed of atoms. Atoms are composed of particles. Particles in the process of forming atoms have material energy as a factor (因素) or yang (阳). Strong forces and weak forces are a kind of yin (阴) or cause (因) information. In time, they form a yin-yang cause-and-condition relationship, creating matter and atoms (Liu, 2024b). Or it doesn't.

Similarly, particles are a yin-yang structure combined with bosons and fermions. The strong and weak forces are the mutual information that forms particles. Particle creation of atoms and material is also a process of mutual cause and condition of all forces. Here appear strong and weak forces, the balance state of energy structure aggregation force and radiation force, and the controlling force of mass structure aggregation force, time, and thermodynamic direction. Mass is the basis of gravitational force, and gravitational force is the mutual information perception of material mass. This information structure is different from other force information structures. Therefore, unifying all forces with mathematics is inappropriate (Liu & Liu, 2020). The cause of time is related to the weak force. (Liu, 2024e)

The existence time of particles and the existence time of matter must be determined in their respective 0 basis point coordinate systems. Only the 0 basis point coordinate system of matter has gravity, and the 0 basis point coordinate system of energy should not have gravity. This may be the yin-yang (阴阳) coordinate system of quantum mechanics wave-particle diphase, and the node of light and photons. (Liu & Liu, 2024)

Using Taoist and Buddhist philosophies to analyze the origin of the universe, the cause and condition 因缘 of causes 因 and factor 因素, the mutual generation 生 and control 克 of yin 阴 and yang 阳, are the root or origin of energy and information creating matter. Energy and information are non-material and can create matter. Information continues to direct the movement, existence, and change of matter after creating it. Ultimately, it moves towards the yin-yang balance of matter and energy in the cause and condition of time and thermal force.

Matter or stones move and change towards balance in the phenomenon of entropy increase in physics. The practice of mineral processing is based on the three major crushing energy hypotheses. (Liu, 2024b) It can be found that stones change and move under the influence of artificial energy and information, including the purification and application of metals, non-metals, and radioactive elements, and the manufacture and explosion of nuclear weapons.

Even without human existence and artificial energy and information, stones will still move and change. On a macro scale, all forces and time guide and induce the creation, existence, movement, and change of stones. In nature, stones are radioactive on a micro-scale.

Under the guidance or influence of information, stones originate from the non-material energy of emptiness and void. Under the influence of all forces, they will return to natural energy. Artificial information and energy will accelerate the return process of stones.

Stones, under the influence of information, come from the non-material energy of emptiness and void and return to the non-material energy of emptiness and void. However, in the concept of human-created time, this time is very long. Stones and all matter originate from emptiness and return to emptiness. Humans are the same.

Humans created physics, systems science, quantum mechanics, and relativity. Physics, systems science, quantum mechanics, and relativity are human scientific cosmological ontology. This should be the scientific fundamental model of the universe, the scientific ontology of the material universe (Liu, 2024e). It is human beings who have created the information of the origin of the universe with material science.

## 5.2. The Changing Existence of Stones Led to the Thoughts on the Living Existence of the Universe

In understanding stones, the radioactivity of stones, natural thermal force, electromagnetic force, and gravitational force's cause and condition of combining

stones led to thoughts on the natural changes of life and death, existence and non-existence of stones.

In the practice of researching stones, making stones change and move also requires breaking the energy of these forces combining stones. The basic principle comes from the three major energy hypotheses of mineral processing. (Liu, 2024b) By analogy, all existence and non-existence of matter and energy exist with the same fundamental logic of the existence of all things in the universe.

After learning quantum mechanics and relativity, the author realized that particle thinking could be analyzed with the same rational logic. Particles are a kind of discontinuous energy in nature, called black body energy by Planck. This energy is a non-material existence that cannot be measured in length, width, and height using a three-dimensional coordinate system. It is a zero-dimensional existence. However, it is also a living existence. This non-material living existence and all the physicists' research on the properties of particles can conclude that this existence is not limited by the speed of light, yet it is not absolute zero, not zero electric charge. Therefore, Einstein's questioning of quantum mechanics is invalid and non-existent. (Liu, 2024b)

Einstein discovered relativity, discovered the speed of light, and created  $E = mc^2$ . Using the principle of the quality-quantity change of dialectical materialism, this is the yin-yang change of material mass under the information conditions of the speed of light. Material mass is the basic parameter for confirming atomic-like three-dimensional material coordinate systems. This parameter is invalid for particle-like non-mass material existence. Ask the scientific community to think, under what conditions can there be Newton's universal gravitation force? Gravitation is one of the souls of existence, and may only be information about the mass structure of matter, which cannot be confused with information about other forces, and is not the same kind of structural information. (Liu & Liu, 2020)

Therefore, four-dimensional space-time can only be used for research on mass with non-zero time and non-zero three-dimensional size. Studying space and the energy and information within it requires designing time and dimensions as zero. Therefore, the point, string, and membrane concepts of M-theory, can only be used as energy structure physics concepts, not as mass structure numerical parameters. (Liu & Liu, 2020)

Physics should unify atomic and molecular material thermodynamics, radiation thermodynamics, and black body thermodynamics of particles under the category of thermodynamics. (Planck, 2019). Quantum mechanics and relativity would have no contradictions. In other words, physics should not only have Einstein's material mass and gravitational relativity but also electromagnetic mechanics, strong force, weak force, and thermal force relativity. (Liu, 2024e) Discovering a force should mean the existence of a corresponding relativity.

Therefore, the interpretation of quantum mechanics requires a new theoretical framework, using the universe's origin thoughts of Taoist and Buddhist philosophies, combined with the thoughts and ontology of ancient Greek and other

---

human ancestors, using the principles of dialectical materialism, and combining all modern scientific knowledge to combine quantum mechanics and relativity into a new scientific cosmological ontology.

## 6. New Interpretation of Quantum Mechanics

In physics, the interpretation of quantum mechanics is a philosophical consideration, a complex topic. This consideration must be based on the basic principles and experimental foundations of quantum mechanics.

Currently, the standard language for interpreting quantum mechanics is the Copenhagen interpretation, also questioned by Einstein. The Copenhagen interpretation suggests that particles can be described using wave functions following the Schrödinger equation. A wave function moves smoothly according to the Schrödinger equation until it is measured or a single particle at a specific position. In other words, when a wave function encounters artificial detection, it collapses suddenly. (Landau, 2008)

As a non-professional in physics, the author does not dare to delve into the theory of quantum mechanics. Here, only from the perspective of the universe's origin, considering the contradiction between quantum mechanics and relativity and the interpretation of quantum mechanics. It is about the thinking of particle existence and energy existence.

The origin of basic energy is continuous. Planck discovered discontinuous energy quanta, called particles. Analyzing it with the thoughts on the universe's origin, there must be a primal force that achieved this, which should be thermal force (Liu, 2024e). The time concept of particle existence is a non-material time concept, a wave concept. Particles are also waves of zero dimensions, not absolute zero. They can be derived using wave functions but cannot be calculated. Once calculable, they have the mass concept of particles and the tendency of atomic mass, the tendency of three dimensions, entering the realm of relativity. Before this, it is not in the realm of relativity. Relativity is the scientific realm of mass and gravitational force. Therefore, quantum mechanics only needs to determine its physical realm to solve the contradiction of quantum mechanics being questioned. (Liu & Liu, 2020)

Currently, there are many interpretations or philosophical considerations of quantum mechanics. However, fundamentally speaking, the basic contradiction between quantum mechanics and relativity lies in the understanding of the material and non-material existence of energy and particles or the basic nature of space. As an engineering technician, the author understands the fundamental contradiction between quantum mechanics and relativity from the research on materials or stones. From the perspective of the universe's origin, using dialectical materialism, understanding the essence of space and the actual essence of existence, and using the basic attributes of space and the basic characteristics of existence in space is a new thought to solve the contradiction between quantum mechanics and relativity. There is actually no contradiction. (Liu, 2024a; Liu, 2024b) Quantum

mechanics and relativity are new cosmic truths discovered by human beings and new creative discoveries of ontology.

## 7. Conclusion

Using the thoughts on the universe's origin left by our ancestors, combined with the application of engineering science in modern science, and rethinking and re-understanding the nature of space and existence in the universe with dialectical materialism, a new scientific cosmological ontology will be formed. The combination of quantum mechanics and relativity will create the scientific cosmological ontology of the thoughts on the universe's origin.

## Acknowledgements

The Great Britain Journals Press and the Open Journal of Philosophy continuously published articles on the thoughts on the universe's origin, providing a community for thinking about the universe's origin. Thank you for publishing the article.

## Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

## References

- 13th CGPM (1969). *Comptes Rendus de la 13e CGPM (1967)*.  
<https://www.bipm.org/utils/common/pdf/CGPM/CGPM13.pdf#page=103>
- Aristotle (2016). *Metaphysics* (Translated by Cheng Shihe). Taihai Publishing House.
- Aristotle (2019). *Physics* (translated by Zhang Zhuming). Commercial Press.
- Born, M. (2023). *The Restless Universe* (Translated by Zuo Anpu). Beijing United Publishing Company.
- Descartes (2019). *Descartes' Geometry* (Translated by Yuan Xiangdong). Peking University Press.
- Einstein (2020). *Relativity* (Translated by Zhang Qianqi). Shanxi Normal University Press.
- Feng, Q. (2008). *Encyclopedia of Foreign Philosophy*. Shanghai Lexicographical Publishing House.
- He, G. Z. (Ancient) (2022). *He Guan Zi* (Annotated Translation by Zhang Weiwen). Zhonghua Book Company. (In Chinese)
- Hegel (2019). *The Logic of Hegel* (Translated by Yiguo Wang). Jincheng Press.
- Landau (2008). *Quantum Mechanics* (Translated by Yan Su). Higher Education Press.
- Leibniz (1996). *The Leibniz-Clarke Correspondence* (Translated by Chen Xiuzhai). The Commercial Press.
- Liu, H. J., & Liu, S. (2020). *Reflection and Research on the Origin of the Universe*. Taipei Warmth Publishing. (In Chinese)
- Liu, H. J., & Liu, S. (2021a). *Thinking and Research on the Human Origin*. Taipei Warmth Publishing. (In Chinese)
- Liu, H. J., & Liu, S. (2021b). *0-Dimensional Universe—Survival Test of All Things*. Taipei Warmth Publishing. (In Chinese)

- Liu, H. J., & Liu, S. (2021c). *0-Dimensional Universe—Absolute Space Test*. Taipei Warmth Publishing. (In Chinese)
- Liu, H. J., & Liu, S. (2021d). *Tao Te Ching—Universal Declaration*. Taipei Warmth Publishing. (In Chinese)
- Liu, H. J., & Liu, S. (2024). *Textual Research of the Universe Original Classic*. Taipei Warmth Publishing. (In Chinese)
- Liu, S. (2017). Revelation and Reflection on Mankind by Modern Physics Part I. *Open Journal of Philosophy*, 7, 435-447. <https://doi.org/10.4236/ojpp.2017.74023>
- Liu, S. (2019). Revelation and Reflection on Mankind by Modern Physics Part II Consideration on Multidimensional Universe. *Open Journal of Philosophy*, 9, 72-81. <https://doi.org/10.4236/ojpp.2019.92007>
- Liu, S. (2020a). Philosophical Reflection over the Origin of the Universe. *Philosophy Study*, 10, 214-223. <https://doi.org/10.17265/2159-5313/2020.03.005>
- Liu, S. (2020b). The Essence of the Universe and Humankind. *Open Journal of Philosophy*, 10, 316-330. <https://doi.org/10.4236/ojpp.2020.103021>
- Liu, S. (2021a). Cosmic Space in Zero-Dimension: A Discussion on Spatial Question According to the M-Theory. *Open Journal of Philosophy*, 11, 159-170. <https://doi.org/10.4236/ojpp.2021.111012>
- Liu, S. (2021b). A Second Discussion on Cosmic Space in Zero Dimension—A Discussion on Spatial Questions According to Classical Physics. *Journal of Applied Mathematics and Physics*, 9, 556-564. <https://doi.org/10.4236/jamp.2021.94039>
- Liu, S. (2021c). The Third Discussion on Cosmic Space in Zero Dimension—A Discussion on Spatial Questions According to the Correspondence between Clarke and Leibniz. *Open Journal of Philosophy*, 11, 326-335. <https://doi.org/10.4236/ojpp.2021.112022>
- Liu, S. (2021d). *Revelations and Reflections on Humankind Inspired by Modern Physics*. Scientific Research Publishing. <https://doi.org/10.4236/ojpp.2021.112022>
- Liu, S. (2024a). *Exploring the Essence of the Universe*. Great Britain Journals Press.
- Liu, S. (2024b). *Second Time Exploration the Essence of the Universe*. Great Britain Journals Press.
- Liu, S. (2024c). *Third Discussion on the Origin of the Universe*. Great Britain Journals Press.
- Liu, S. (2024d). *A Letter to the Scientific Community*. Great Britain Journals Press.
- Liu, S. (2024e). *The Fourth Discussion on the Origin of the Universe*. Great Britain Journals Press.
- Liu, S. (2024f). *The Fifth Discussion on the Origin of the Universe*. Great Britain Journals Press.
- Longair (2017). *Theoretical Concepts in Physics* (Translated by Shouping Xiang et al.). University of Science and Technology of China Press.
- Newton (2017). *Mathematical Principles of Natural Philosophy* (Translated by Yu Liang). Beijing Institute of Technology Press.
- Ohguri, H. (2016). *Strong Interaction and Weak Interaction* (Translated by Yi Ning). People's Posts and Telecommunications Press.
- Planck, M. (2019). *Eight Lectures on Theoretical Physics—Delivered at Columbia University in 1909* (Translated by Yi Ling Ge). Chongqing Publishing House.
- Wang, Y. M. (Ming Dynasty) (2018). *Record of Transmission and Practice*. Beijing United Publishing Co. Ltd. (In Chinese)
- Zhou, D. Y. (Song Dynasty) (1990). *Collected Works of Zhou Dunyi*. Zhonghua Book

Company. (In Chinese)

Zhu, X. (Song Dynasty) (2008). *Reflections on Things at Hand*. Zhongzhou Ancient Books Publishing House. (In Chinese)

Zhuangzi (Ancient) (2017). *Zhuangzi*. Zhonghua Book Company. (In Chinese)