

The Pinnacle of Science or the End of Scientific Thought?

—The Fifth Discussion of the Theoretical Contradictions between Quantum Mechanics and Relativity Using Cosmic Origin Philosophy

Samo Liu 

China Occupational Safety and Health Association, Beijing, China

Email: Samo945@126.com

How to cite this paper: Liu, S. (2025). The Pinnacle of Science or the End of Scientific Thought? *Open Journal of Philosophy*, 15, 41-63.

<https://doi.org/10.4236/ojpp.2025.151004>

Received: December 3, 2024

Accepted: January 19, 2025

Published: January 22, 2025

Copyright © 2025 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

Quantum mechanics and relativity spurred the Third Industrial Revolution, presenting no contradictions in applied engineering but significant theoretical discord. The electronic computer, another major achievement of this era, transformed humanity through the rise of information networks, marking information science as another critical outcome of the revolution. Matter transforms into energy, energy into matter, and mechanics serve as profound conduits for information, even enabling the creation of robots. Modern physics now faces interpretative divides, having seemingly overlooked philosophy and information science's foundational roles. Human intellect, while reaching new heights through material philosophy, finds itself tangled in confusion. Has science achieved the apex of thought, or does it face an intellectual dead end? This question hints at a revolutionary awakening in human thought. This paper delves deeply into these questions by analyzing and reflecting on the "Scientific Cosmological Ontology," "Modern Physical Philosophy Framework," "The Physical Principles of Natural Philosophy," and "Reflections on the Philosophy of Science."

Keywords

Energy Science, Material Science, Information Science, Universal Origin Philosophy, Ontological Philosophy, Taoist Philosophy, Buddhist Philosophy, Dialectical Materialism

1. Literature Review

Does philosophy have any practical value for human work and life? This is a serious question for human thinking.

Aristotle set aside human thinking about space and existence in space, and concentrated human thinking on material philosophy. After a relatively long historical period, under the guidance of material philosophy, material science has undergone tremendous changes and guided mankind to the peak of science.

There are theoretical contradictions between quantum mechanics and relativity, which is not a scientific problem, and various analyses show that there is a big problem in human philosophical thinking. The core of this problem is the problem of thinking about material philosophy and the original philosophy of the universe, and the thought of material philosophy has come to an end.

Philosophy, for the survival and existence of mankind, is a very valuable learning.

Buddhist and Taoist philosophies are vast and profound, with a universal origin perspective that respects all phenomena, including material and immaterial existence, valuing all things and occurrences in the universe (Liu & Liu, 2021d; Liu & Liu, 2024). They explore “emptiness 空” and “void 无” and the infinite nature of the cosmos. By analyzing and exploring these core concepts of existence, humanity can understand the original source of all things within the universe. Respect for the Taoist and Buddhist philosophical insights into the origins of the cosmos leads to a fundamental appreciation for existence, advocating for mutual respect among humanity. This extends to reverence for space and for the essential nature of “void 无” and “emptiness 空” as foundational aspects of the cosmos (Laozi, 2019; Shakyamuni, 2019).

The philosophy of the universe’s origin invites humanity to acknowledge and address universal contradictions, building a framework for their resolution. It encourages respect for existence and harmonious, joyful coexistence.

Although ancient Greek philosophers approached the philosophy of the universe’s origins in a fragmented and unsystematic manner, a coherent analysis reveals their fundamental insights into universal principles (Liu & Liu, 2020; Liu, 2024i). By linking Taoist and Buddhist philosophies with Greek cosmological principles, we achieve a more complete view of cosmic origin theory. This understanding posits that modern physics represents an ontology of the cosmos (Liu, 2024g), which informs the philosophical framework for modern physics (Liu, 2024h) and encapsulates the physical principles of natural philosophy (Liu, 2024i).

Thus, philosophy can be re-examined through these foundational insights, using philosophical constructs to analyze the essence and origins embedded within these ideas. This approach allows us to understand that the great achievements in both modern and classical physics, forming humanity’s “material cosmology” theory, reflect humanity’s liberation of intellectual freedom, fulfilling the objectives set forth by Aristotle’s material philosophy and science (Liu, 2025; Aristotle, 2019; Aristotle, 2016).

However, it seems humanity remains largely unaware of this. What is it that clouds our understanding? And how much longer will we remain confined by Aristotle’s material philosophy before we awaken to broader realizations? (Liu,

2024g)

This issue is distinctly manifested within the “theoretical contradictions” in quantum mechanics and relativity.

What is the “theoretical contradiction” between quantum mechanics and relativity? What issues does it embody, and what problems does it reflect? What roles do philosophical thought, language, symbols, numbers, and mathematics play? Has science reached the pinnacle of human intellectual development, or has it reached an endpoint in human thought?

Starting from an analysis of the theoretical contradictions in quantum mechanics and relativity, this paper further reflects on the role material philosophy has played in the development of material science, as well as the potential obstacles it may present to scientific progress, thereby examining the impact of material philosophical thought on the real world.

2. What Is the “Theoretical Contradiction” in Quantum Mechanics and Relativity?

Quantum mechanics and relativity are pillars of modern physics and have significantly contributed to the Third Industrial Revolution. They have driven advancements in both macro-scale space research and micro-scale studies related to computers, television, cell phones, networks, and atomic energy. While there are no contradictions in their engineering applications, why do theoretical contradictions arise? This has puzzled humanity for over a century.

This contradiction represents a conflict in human thought, a clash of philosophical ideas. It highlights the tremendous progress humanity has achieved in practical scientific applications while simultaneously revealing substantial intellectual challenges in our fundamental concepts. From the principles of physics, it appears that science has entered a state of conceptual chaos, necessitating a search for temporal coordinates and directions. Without this, progress halts (Smolin, 2017).

Aristotle’s material philosophy has guided material science’s progress for over two millennia. However, the answers may lie within philosophical insights dating back 2500 years; only then can we find a path forward. Modern physics has opened the door, yet the direction for further thought remains elusive—here, we offer a preliminary inquiry. (See comprehensive review in references 1-25) Starting from the foundational questions of philosophy (Liu, 2024i; Liu, 2025), and applying scientific ontology (Liu, 2024g), we propose a philosophical framework for modern physics (Liu, 2024h) to address and resolve the “theoretical contradictions” in quantum mechanics and relativity. This leads us to a profound reflection on material philosophy’s influence on material science and the potential constraints it places on scientific progress.

The premise of science is philosophy, and the philosophical framework serves as the foundation of science. If this foundation is lost or mistaken, science becomes directionless and confused. Many theoretical scientists, including Einstein and other pioneers of quantum mechanics, have encountered similar errors, re-

ulting in contradictions and leading human thought into realms of folly and confusion (Liu, 2024g).

In Hiroshi Ooguri's work "Superstring Theory", it is observed that theoretical scientists, when faced with concepts of infinity—either infinitely large or infinitely small—tend to use the concept of "renormalization" to avoid these contradictions. This reflects a lack of sufficient information in the philosophy of cosmic origin (Ohguri, 2015a: pp. 41-46). It is recommended that physicists and mathematicians rethink modern physics with the philosophical idea of the origin of the universe.

The universe is a living entity of yin 阴 and yang 阳. Yin 阴 represents the foundational energies and divine nature of emptiness, such as force and information. Yang 阳 embodies foundational energy, dark matter, dark energy, particles, quarks, and the dynamic yin-yang factors of matter's transformation. In physics, this is conceptualized as an "onion-like" existence, where each layer represents a distinct form of existence; however, unlike a perpetually peelable onion, there is a limit to these layers. Each layer of the onion signifies a form of existence, with matter and particles, each representing a layer, constantly undergoing transformation. Using the principles of dialectical materialism's quantitative-to-qualitative change analysis, dark energy, dark matter, particles, quarks, and matter itself are all forms of energy. These transformations, rooted in a divine emptiness, can be addressed using a zero-point coordinate system. The existence of energy, particularly material energy, can always be represented by time and coordinates that reflect magnitude, quantity, and duration. This signifies that yang undergoes transformation under the dominance of yin, while yin and its causal existence represent a divine, empty nature (Liu, 2024g; Liu, 2024i; Liu, 2025).

2.1. The Nature of the "Theoretical Contradiction" in Quantum Mechanics and Relativity

The author is not a researcher in theoretical physics, and despite reading various books on the subject, cannot expound on the contradictions between quantum mechanics and relativity from a strictly professional perspective. However, through the lens of cosmic origin philosophy and reflective practices in mineral processing, it becomes apparent that the contradictions relate to philosophical contemplation and are directly tied to the concepts and nature of space and time. From a philosophical standpoint, both quantum mechanics and relativity are founded on material philosophy, shaping their respective frameworks within physics and overlooking the issues of space and time, which have been unresolved for over 2000 years since Aristotle. The vagueness in natural philosophy underpins the fundamental contradictions observed in quantum mechanics and relativity.

Material science's progress has reflected the accuracy of material philosophy's framework, yet the contemporary confusion in modern science highlights the chaos within material philosophical thought. The discovery of quantum mechanics has broken ground for creation theories within material science, but a material philosophy explanation inevitably brings about contradictions. Explaining these

with universal origin principles could naturally lead to a resolution of these contradictions within modern physics.

Relativity, quantum mechanics, and the ongoing efforts of M-theory in unifying various physical theories illustrate that material philosophy has propelled scientific progress but ultimately results in theoretical contradictions. To transcend these contradictions, new perspectives are essential, as the contradictions within modern science will otherwise stymie philosophical inquiries and obstruct the formation of unified thought. Thus, the pinnacle of science could potentially signify its endpoint.

Out of respect for modern science, no further references will be cited here. From various physics texts studied, there is a generally consistent understanding within the scientific community that both quantum mechanics and relativity provide unique and profound insights into the nature and mechanisms of the universe.

Quantum mechanics describes the behavior of particles and quarks, revealing properties of matter at atomic and subatomic scales that diverge significantly from everyday human experiences. For instance, the phenomenon of the probability cloud suggests that position and velocity cannot be precisely determined simultaneously, adhering to principles of probability and challenging the notion of causality.

Special relativity, with its equation ($E = MC^2$), expresses the relationship between matter and energy. General relativity, in its depiction of gravitational fields, reveals the relativity of spacetime, suggesting that causality is an inherent property of nature.

The two theories differ greatly in their descriptions of time, space, and gravity. Quantum mechanics posits that time and space are independent; time flows uniformly, and space exists independently as the stage upon which interactions occur. In contrast, relativity asserts that space and time are not independent entities but form a unified, interwoven continuum—a dynamic, evolving spacetime fabric, where gravity results from the curvature induced by matter and energy.

In summarizing the contradictions between the two: Is space and time independent or a unified whole? Is spacetime flat or curved? Is it smooth or subject to fluctuations? Does it follow probabilistic randomness or deterministic causality? Additionally, there are questions concerning whether information is conserved or not. Another key issue is whether “existence” can surpass the speed of light.

The central issue lies in the definitions and understanding of space, time, existence, and the fundamental principles that underlie them.

2.2. A Critical Review and Analysis of the “Theoretical Contradiction” in Quantum Mechanics and Relativity

Analyzing these phenomena through the philosophy of cosmic origin reveals that the contradictions arise from logical confusion in the philosophical concepts of physics. Over 2000 years of philosophical development have brought science to its

zenith, but it now appears to have reached an impasse.

2.2.1. Review and Analysis Part 1: Philosophy, Material Science, Energy Science, and Information Science

Thinking is a fundamental attribute of human beings and forms the basis of both philosophy and science. Since scientific philosophy reflects the thinking of only a minority, it can be directed toward the “love of wisdom” and intelligence, or it can pursue “the love of error” and ignorance. Contemporary human contemplation of the three-dimensional universe and three-dimensional space exemplifies humanity’s simultaneous pursuit of wisdom and folly (Liu, 2024g).

Over 2500 years ago, the philosophical insights of Taoist, Buddhist, and ancient Greek philosophers represented genuine scientific philosophical thought, addressing the universe’s original philosophical principles. They valued and respected human and material appearances and prioritized exploring the underlying nature and origins behind these appearances. After Aristotle, however, only a handful of scientists continued contemplating scientific philosophy, focusing on the fundamental causes of material existence, movement, and change. The phrase “the death of philosophy” reflects the diminishing role of philosophy within many theoretical scientists’ minds—they have either lost philosophical thought altogether or have forgotten its essence and origins. This is the root of the “theoretical contradiction” within quantum mechanics and relativity.

The progression of material philosophy after Aristotle propelled the development of material science and philosophy. Together, they reached the zenith of scientific thought. This zenith reflects humanity’s comprehension of the philosophical definition of “material” concepts, or, in other words, material science and the science of a three-dimensional universe (Liu, 2025).

Classical physics revealed the work potential of material existence, thus establishing mechanics. Modern physics uncovered that energy is equivalent to matter, suggesting that matter’s origin lies in energy. In other words, science created the study of energy, yet the meaning of energy science remains elusive. We mistakenly consider immaterial energy as material. This foundational energy and existential factor (因素) can be termed “yang 阳” (Liu & Liu, 2020).

Both classical and modern physics recognized the role of information and the binary system, leading to the creation of computers and robots. Science has thus birthed information science, but its nature is equally unclear; we misconstrue immaterial, non-energy information as material. This “intelligent energy” and factor that brings about existential change can be described as the agent of wisdom or the cause (因) of transformation, also known as “yin 阴” (Liu & Liu, 2020). According to energy science and information science, space can be described as absolute or zero-dimensional space. In a few hundred years, this definition may evolve further.

Thus, to claim that “philosophy is dead” or that “science no longer needs philosophy” reveals a profound sadness within theoretical science.

2.2.2. Review and Analysis Part 2: Space

Space is a fundamental concept in philosophy and a root cause of contradictions within modern physics. Science seems to have forgotten that this philosophical problem has remained unsolved and is a longstanding topic of human inquiry. To circumvent this contradiction, Socrates and Aristotle tabled this question over 2000 years ago. Aristotle's approach was astute; humanity then lacked the information needed to logically analyze the nature of space and its emptiness, and he led humanity to refocus philosophy on material concerns, sparking the rapid development of material science and material philosophy (Russell, 2017; Frank Tille, 2014).

In the last 500 years, humanity has used material philosophy and material science to create energy and information science. Yet our thoughts remain restricted to the framework of material philosophy, unaware of the philosophy of energy and information—these are the cosmic origin philosophies our ancestors left behind (Liu & Liu, 2021a).

Today, we have more information than ever, allowing us to deepen our understanding of space and the existence of emptiness. Based on the three-dimensional concept of space, our understanding is limited to the shapes of existence—more precisely, to the shapes of material existence, rather than an understanding rooted in energy and information science. This limitation inevitably leads to contradictions between quantum mechanics and relativity (Liu & Liu, 2021b).

Space is referred to as “Tan 德”, an unknowable concept belonging to mysticism and theology. Science should not lightly describe space using terms such as curvature, smoothness, or dimensions, as these are profound misinterpretations of natural space. “Tan 德” is infinitely large and small, the mother of all existence (Liu & Liu, 2021c; Liu, 2024a; Liu, 2024b).

Given current information, the universe has not granted humanity the right to distort its understanding of space.

Material science, energy science, and information science must each independently describe space for humanity's scientific existence. Material science designates it as three-dimensional space; energy science might call it zero-dimensional space; with advancements in energy and information sciences, future descriptions of space may change.

The development of material philosophy and science has benefited humanity, but it has also restricted our thinking about the concept and origins of space (Liu, 2024g).

2.2.3. Review and Analysis Part 3: Time

Time is a philosophical concept created by humanity to facilitate survival and existence, describing a process. Greek philosophy called this process “existence,” Buddhist philosophy “Du 度,” and Taoist philosophy “有长而无乎本剽者，宙也 (untranslated),” the “Tao 道” of the universe (Zhuangzi, Ancient, 2017). This is the essence of time (Liu, 2024i).

Humanity defines natural processes as years, months, days, hours, minutes, and

seconds. Modern science identified “seconds” as originating from a form of atomic radiation in its initial state (13th CGPM, 1969), while quantum mechanics identified the radiative nature of particles. The temporal process is an irreversible thermodynamic existence with directionality (Liu, 2024a).

Time represents human recognition and the information we created about the process of all existence, marking beginnings and endings without existing as any tangible element within natural processes. Time is a man-made informational existence.

By understanding the concept and origin of time, it becomes clear that all forms of existence undergo a process with a beginning and an end. This process can occur within the material world as well as in the non-material realm. Matter has a beginning and an end; particles have a beginning and an end; dark energy and dark matter also have a beginning and an end, all originating from the thermodynamic state of absolute zero. Absolute zero represents the start of zero-time for all existence. Various forms of existence can therefore be mapped using a zero-time baseline coordinate system (Liu, 2024h).

For every type of force, there exists a corresponding type of energy, each with its own beginning and end. All forces and energies can combine to form atomic matter, thereby producing gravitational mass—a unique property of matter. Einstein’s theory of relativity is applicable only within the philosophical and physical domains associated with gravitational mass.

Defining time as negative or curved is a distortion of natural philosophy and a false construct.

Time is an independent concept and should not be tied to other forms of existence, even though external information can interfere with processes, such as in atomic explosions. However, time remains an independent, man-made informational existence.

Human consciousness and the material heart can sense the existence of temporal causality and are guided by it. To this day, humanity lacks sufficient information to explain this phenomenon. This suggests that physics has yet to adequately research mechanics or provide comprehensive explanations for the thermodynamic directionality of time (Liu, 2024e; Liu, 2024i).

The “Huangdi Neijing 黄帝内经” uses statistical principles and the principles of Yin 阴 - Yang 阳 and the five elements 五行 to describe the process of bodily cells perceiving the human lifespan. For example, after conception, humans follow a pattern of 7-year cycles for females and 8-year cycles for males, marking development, maturity, and decline (Liu & Liu, 2020).

For thousands of years, living beings have largely remained within the process of time perception described in *Huangdi Neijing* (The Yellow Emperor’s Inner Classic) regarding human cell awareness. Medical information can treat illnesses and extend human life, while energy-related information sustains life, and various forms of energy can also end it. Humanity has discovered the principles of material and energy radioactivity, which can be used with statistical mathematics to

calculate the lifespan of stones and various materials. By using physical and chemical methods, humanity can refine certain radioactive elements in stones to create nuclear weapons. Although human manipulation of information can alter the lifespan of material existence, the rate of time itself remains unchanged.

Time does not change in response to human manipulation of information; it does not reverse or bend. It moves forward as it is, and when we estimate human lifespan or the lifespan of any form of existence, we typically use conventional methods, though external information can influence the duration of existence. The speed of light is the ultimate speed limit for matter, which only signifies that information can alter the structure and form of existence. Time expresses the structure of existence through a finite journey from zero to zero.

Conversely, if humanity were to unleash all nuclear weapons in warfare, the time processes of all human existence—including the human concept of time—would be abruptly cut short. Yet the thermodynamically irreversible processes governing all existence in the universe would continue unabated.

The concept and origin of time created by humanity are remarkable. Even more remarkable is that all “existence” observes the process of time through thermodynamic perception, with self-awareness and self-regulation. Physics should scientifically investigate time and avoid describing it arbitrarily.

Respecting and taking seriously “Time Reborn” will provide a path forward for physics (Smolin, 2017).

In “He Guanzi”, it is said, “When time is established, things are born 时立而物生” (He Guanzi, Ancient, 2022).

2.2.4. Review and Analysis Part 4: Zero, Emptiness 空, and Void 无

Zero is a numeral invented by humanity. Over 2500 years ago, zero as a concept did not exist (Webb, 2018), while Taoist and Buddhist cosmology described it with terms like “void” and “emptiness.” However, zero does not fully capture the meanings of void and emptiness, which do not signify a complete lack of anything. Quantum mechanics informs us that “void” and “emptiness” represent the original forms of matter and energy. They describe the formative states of material existence. “Void” and “emptiness” refer to non-material existence, entities beyond what human perception typically registers. They denote the primordial, pre-material forms from which particles and quarks emerge, leading to matter and energy. In this context, they arise from absolute zero.

By examining the structure of our three-dimensional universe, the universal origin of “void” and “emptiness” can be understood as the foundational state from which matter emerges and transforms. This foundational state of matter, which begins as a non-material existence, undergoes a process before ultimately returning to this foundational form. In this view, matter can be seen as having a zero-dimensional origin, which we might describe as a “zero-dimensional universe”. (Liu, 2021a; Liu, 2021b; Liu, 2021c)

Material science, therefore, is a science of the three-dimensional universe.

Energy science, on the other hand, could be considered the science of a zero-

dimensional universe. In Liu and Liu's (2020) writings, the term "four-dimensional universe" is used to denote this, referring to a three-dimensional universe with an additional vanishing dimension. This additional dimension represents a universe with no material dimension, existing at time zero. Influenced by M-theory, this characterization of the zero-dimensional universe provides a conceptual framework for understanding the non-material quantum universe, where energy exhibits structure. Dark matter and dark energy are likewise assumed to have structure, originating from the principles of absolute zero. Thermodynamics establishes this existence, suggesting that dark matter and dark energy also require a time-zero base coordinate system. While we lack further information regarding dark matter and energy, they may be inferred as direct products of phenomena like the Big Bang. This is not a conclusive assertion but rather a tentative hypothesis (Liu, 2024h).

This hypothesis finds support in the Taoist classic "Liezi 列子", (Liezi, 2016) which expresses a cosmological view of the universe's ontology: "夫有形者生于无形，则天地安从生？故曰：有太易、有太初、有太始、有太素。太易者，未见气也；太初者，气之始也；太始者，形之始也。太素者，质之始也。气形质具而未相离，故曰浑沦。浑沦者，言万物相浑沦而未相离也。" (Untranslated) (Liu & Liu, 2020).

In essence, matter exists within a three-dimensional, tangible form, but it originates from a formless state. The formation of the universe can be divided into four stages, designated as the TaiYi 太易, TaiChu 太初, TaiShi 太始, and TaiSu 太素 (Liu & Liu, 2020).

The TaiYi 太易 represents a state of absolute zero—a cosmic equilibrium with no material energy, only the primordial, dual aspects of basic energy 基础能量 and intellectual energy 智慧能量, referred to as yin 阴 and yang 阳. This indescribable state remains present even as material existence unfolds and can also be described as the Great Void 太虚 (Liu & Liu, 2020).

The TaiChu 太初 represents a non-equilibrium state at a temperature above absolute zero, marking the initial thermodynamic state of the universe. This state is a non-material form, which can be referred to as dark matter and dark energy, representing the beginning of the yin-yang *qi* of the universe and the inception of the material universe. It is the origin of the material cosmos, where dark energy is denoted as E_y , dark matter as E_x , and *太初* as E_4 .

Thus, $E_4 = E_x + E_y$, approximately equal to 95.1% of the universe's total composition (Liu, 2024h; Ohguri, 2015b).

The TaiShi 太始 describes the quantum state of the universe, portraying the birth of the material universe. Under the influence of force and time causality, dark matter and energy combine to form particles, manifesting as a wave-particle duality. Upon being measurable, particles take on three-dimensional characteristics, entering the physical scope of a three-dimensional universe.

The TaiSu 太素 represents the actual creation of the material universe, signified by the birth of gravitational mass, the initiation of temporal progression, and

the beginning of material existence as measured by the zero-time coordinate system, marking entry into the realm of relativistic physics.

Thus, quantum mechanics and relativity embody the material universe's creation in scientific cosmology (Liu, 2024g).

Information science can be treated as a philosophical reflection on the zero-dimensional universe. In Liu & Liu (2020), it is listed as the "five-dimensional universe," adding a dimension of change to the four-dimensional universe, in which the universe perpetually undergoes transformation between yin and yang. This is the realm of intelligent energy and wisdom, encompassing both mechanics and temporal information. Information science is a mystical science and theology, leaving philosophical conclusions for humanity's descendants to fully grasp. Information, distinct from energy and matter, exists as a random, eternal, and universal divine entity, representing the source of imbalance and balance, the root of causation and effect within the universe.

Zero, as a concept within mathematics, is not analyzed here. From a philosophical perspective, zero denotes a starting point in time, size, and quantity. Due to the properties of gravitational mass, electrical mass, momentum, and other concepts in physics, the time-zero base coordinate system is a fundamental reference point. The three-dimensional universe has its own coordinate system, and Einstein's theory of relativity is confined to scenarios where time equals zero or is non-zero, which is inapplicable to energy and information sciences.

The concept of zero could thus serve as a mathematical method to address modern physics' contradictions. Zero does not signify the absence of anything but rather the beginning of existence and the origin point in a coordinate system.

2.2.5. Review and Analysis Part 5: Material Science, Energy Science, and Information Science

Humanity is material in nature, possessing gravitational mass. Humans are thermodynamic aggregates, formed postnatally under specific informational and material conditions, much like the way we are created from the sperm and egg of our parents. The material universe gave rise to humanity and endowed us with consciousness and subjective awareness. Through this subjective awareness, humanity created language, words, numbers, and even the concept of "consciousness" itself. Matter gave birth to humanity, humanity developed subjective awareness, and only then did human consciousness and subjective awareness emerge.

From this perspective, matter determines consciousness because subjective awareness arises in humans. But what about before humanity was created? The universe itself possesses consciousness a mind, and all things within it are endowed with spirit and awareness. We, as humans, were created by energy through the influence of the universe's mind and consciousness; this is how we came to exist as we are today.

From the dawn of our species, humans have existed within material science, with our subjective consciousness emerging through linguistic, word, and numerical creations, receiving information that is overwhelmingly material. Only a few

early philosophers sought to connect this subjective consciousness with the universe's consciousness, striving to understand the universe's origins. However, upon articulating this cosmic origin philosophy, it remained entrenched in material concepts, which was evident even within ancient Greek philosophy. Only the Taoist and Buddhist universal origin philosophies used suggestive language to lead humanity toward cosmic truths.

It was only with the advent of relativity and quantum mechanics that the concepts of “emptiness” and “void” in these ancient philosophies could be better comprehended.

These scientific theories help elucidate the Buddhist concept that “all things arise from emptiness and return to emptiness,” represented by $E_1 = E_2 = E_3$, an energy conservation and transformation model within the material universe (Liu, 2024h). It clarifies *Tao Te Ching*'s philosophical statement, “道可道，非常道；名可名，非常名。无名天地之始；有名万物之母。” (Untranslated) It also illuminates the principles expressed in Taoist classic *Qingjing Jing*, which states, “大道无形，生育天地；大道无情，运行日月；大道无名，长养万物。吾不知其名，强名曰道。” (Untranslated) (Ge, 2015).

Humanity has long existed within the bounds of material science. Aristotle's material philosophy propelled this field, leading to unprecedented advancements over the last 500 years. Mechanics, energy science, and information science collectively elevated material science to its pinnacle. Relativity and quantum mechanics mark this peak, as material philosophy and science evolved in tandem. Without the guidance of material philosophy, human thought may have remained entrapped with contradictions, limiting progress. This synergy of material philosophy and science has undeniably benefited humanity.

However, as material science reaches its apex, it also brings philosophical constraints, with the “theoretical contradictions” between quantum mechanics and relativity serving as a clear indication.

Material science discovered energy and information science, and the past 500 years of scientific progress have stemmed from their synergy, sparking three industrial revolutions. Yet material philosophy also confined human thought within a materialistic paradigm, with modern physics' contradictions highlighting the limitations of material-based philosophy.

Material philosophy has been, is now, and will continue to be a fundamental principle of human thought. Material science represents humanity's path to future development. By utilizing material philosophy and material science, humanity has largely clarified the definition of “matter” (Liu, 2025). Understanding the definition of matter has provided humanity with material desires and enjoyment, both physical and spiritual. However, it has also led to a thought divide, which could plunge humanity into an irresolvable conflict, and unresolved contradictions might lead to stagnation.

Humanity has discovered and developed energy science and information science, which have driven three industrial revolutions in material science, elevating it to its pinnacle. Yet, this has resulted in theoretical contradictions between quan-

tum mechanics and relativity. Using the logic of material philosophy to explain these contradictions has proved insufficient, inadvertently leading humanity into the realm of cosmic origin philosophy in physics. Scientists have discovered fundamental principles of the universe, but interpreting them through material philosophical logic has led to contradictions.

Taoist and Buddhist philosophies, with their thoughts on cosmic origin, had already proposed ways to address these contradictions. Cosmic origin philosophy encompasses energy philosophy and information philosophy, which go beyond material philosophy.

Material philosophy can be termed the philosophy of E2, treating matter as an existence without a soul.

Energy philosophy represents a synthesis of E1, E2, and E3, viewing matter as an existence with a soul that undergoes changes from birth to death. The ancient Greeks described it as the transformation of “being”; Buddhist philosophy refers to it as the transformation of factors; and Taoist philosophy as the principle of “I Ching”, stating, “无名天地之始；有名万物之母。” (Untranslated) Energy philosophy studies balanced transformations (Liu, 2024h).

Information philosophy examines the causes and relationships that drive energy transformations. Ancient Greek philosophy called it “the animism of all things”; Buddhist philosophy called it “cause 因” and “conditions 因缘”; Taoist philosophy referred to it as “Jing 精” and “Xin 信”. Information philosophy explores the soul that drives energy transformations, encompassing cause and causative relationships, the fundamental reasons behind the balance and imbalance in the universe, and the foundation of cause and effect within it (Liu, 2024i).

Does every cause inevitably have an effect? In the universe, both causes and factors are in constant flux, and only when causes and factors align are outcomes determined. The “spirit of the universe” is continually rolling the dice, and humanity can never fully know the outcome. This may be the principle of quantum mechanics. Just as the spirit of the universe can create humanity, human beings may only emerge in our specific context—on Earth, within the Sun’s domain, in the Milky Way.

Physics is the study of the mechanics and informational interactions within the cosmic mind—the nature ontology of cosmic creation in scientific terms (Liu, 2024g). It’s the theology of nature.

However, humanity still lacks sufficient insights from energy philosophy and information philosophy. We must continue exploring information in energy science and information science and deepen our thinking in energy and information philosophy.

2.2.6. Review and Analysis Part 6: Light, Photons, and the Speed of Light—Light Creates the World

Before the advent of quantum mechanics and relativity, the origins of matter were unclear. Max Planck discovered that energy exists in discrete units, or “quanta,” and Albert Einstein identified light, photons, and the constancy of light speed,

sparkling the development of quantum mechanics, which posits that energy can coalesce into matter through forces. This laid the groundwork for the scientific theory of creation—an extraordinary achievement for humanity. Mechanics enable matter to perform work and transform into energy, while also allowing energy to coalesce back into matter.

Science has uncovered the material universe's essential elements: the form cause, material cause, power cause and purpose cause. Mechanics represent these causes and act as information mediators, facilitating perception, movement, and change, driving toward equilibrium.

Movement and change occur within time, defined as a process of balanced transformation within existence, or “Tao,” in Taoist philosophy.

Force is the “thermal” phenomenon of all existence in the universe; “heat” is the source of mechanics, and thermal power is the creative force (Liu, 2024e; Liu, 2024i).

Physics identifies four fundamental forces: gravity, electromagnetism, strong nuclear force, and weak nuclear force. Gravity is theorized to be mediated by gravitons, although none have been observed; electromagnetism by photons; and the strong nuclear force by gluons.

From a cosmic origin perspective, mechanics represent the perception between entities, so mediators should theoretically be unnecessary (Liu, 2024i). Yet physics posits this concept of mediation. What, then, constitutes the origins of these mediators? Physics suggests that gravitons, photons, and gluons are massless and electrically neutral. From a philosophical standpoint, this is largely unobjectionable. However, the weak nuclear force, mediated by W and Z bosons that possess mass, presents an issue. Either the weak nuclear force is not truly a force, or physics has misunderstood its concept and origin (Liu & Liu, 2021a). The weak nuclear force is crucial to the transformation and decay of matter, playing a role in the thermodynamic perception of time.

Can matter and non-matter exceed the speed of light? The answer is no.

This is a fundamental question of dynamics, central to the existence of gravitational mass in matter. When matter reaches the speed of light, it transforms into pure energy, merging with infinite space. Conversely, energy that adopts a sub-light speed state transforms into matter, or at least a form of energy with material properties.

In a non-material spatial realm, as discussed in the debates between Newton and Leibniz regarding absolute space (Leibniz, 1996; Newton, 2017), it is impossible to determine the position of a non-material state, as time itself is a human-defined concept. Therefore, in non-material space, the concept of speed does not exist, as position cannot be determined. Thus, superluminal (faster-than-light) travel is impossible. The non-material spatial realm surpasses physical science's boundaries (Metaphysics), necessitating a redefinition of speed and a new zero-time coordinate system.

In “Strong Interaction and Weak Interaction”, Hiroshi Ohguri raises an intriguing question regarding the potential implications if light were to gain mass. He

suggests that light would then require longitudinal waves, in addition to transverse waves, to exist (Ohguri, 2015b: pp. 148-149).

What is light, and what are photons? Physics professor Eugene Hecht, in his work “Optics”, quotes Einstein, who, late in his life, admitted, “I have been thinking about what light quanta are for fifty years, but have found no answer. I know that today’s young physicists believe they understand it, but they are deceiving themselves” (Hecht, 2019; Liu & Liu, 2021b). Such an honest admission from Einstein, the father of optics, is remarkable.

Today, with the insights provided by universal origin philosophy, we might address Einstein’s question: photons are essentially sub-light speed particles known as light. Light particles create the material universe. Applying Dirac’s theory that photons can emit positrons and electrons leads us to a fundamental conclusion:

Light creates the world (Liu & Liu, 2021b; Liu & Liu, 2021c). This concept of light transcends the everyday notion and represents basic energy and intelligent energy (Liu & Liu, 2020).

3. Fifth Discussion on the “Theoretical Contradiction” Between Quantum Mechanics and Relativity

The theoretical contradiction between quantum mechanics and relativity has existed for over a century. While physics studies this problem, material science has limited human thought to the bounds of material philosophy. Consequently, rather than unifying understanding, it has led to separate, divergent thinking within science.

Mathematics also tackles this problem, attempting to unify various forces through mathematical means. Yet, mathematics is merely a tool for discussing material and energy sciences. Analyzing this from the perspective of universal origin theory, these efforts may seem futile. However, M-theory has inspired a dimensional approach to comprehending the universe, suggesting ways to grasp the immaterial concepts of “void” and “emptiness.”

The proposition of “Scientific Cosmological Ontology—Using Cosmic Origin Philosophy to Resolve the Contradiction between Quantum Mechanics and Relativity” posits that physics is the ontology of cosmic creation (Liu, 2024g). Mechanics extend material science into energy and information sciences, while the “Modern Physical Philosophy Framework—The Second Use of Cosmic Ontology to Resolve the Contradictions of Quantum Mechanics and Relativity” categorizes quantum mechanics as the science of E1, classical physics as the science of E3, and matter as E2, wherein $E1 = E2 = E3$ (Liu, 2024h). Material energy transforms and is conserved; dark matter and dark energy generate material energy, and they themselves stem from basic energy and intelligent energy. Dark matter and dark energy, classified as E4, complete the equation: $E1 + E4 = 100\%$. This 100% represents only a part of the infinite cosmic space, which remains infinitesimally small, capable of being zero or non-zero, a mere fragment of the universe’s balancing act.

Despite its theoretical vastness, the material universe exists with tangible properties, yet humanity remains ignorant of its scale. Humanity has its own subjective consciousness, its own languages, words, and numerals. Humanity strives to live and exist and has no choice but to think in this way.

The work titled “The Physical Principles of Natural Philosophy—The Third Discussion on Contradictions Between Quantum Mechanics and Relativity Using the Cosmic Origin Principle” encourages a reevaluation of human consciousness, suggesting that the philosophical constructs of language, words, and numbers, which shape scientific concepts and principles, reveal universal philosophical principles within physics (Liu, 2024i).

“Reflection on Science Philosophy—Fourth Reflection on the Contradictions Between Quantum Mechanics and Relativity Using the Cosmic Origin Principle” delves into a profound critique of material philosophy, appreciating its contributions to material science and acknowledging the limitations it imposes on human thought. Material science has improved humanity’s understanding of “matter,” resulting in material and intellectual fulfillment. However, this progress has simultaneously entrenched humanity within material philosophy, hindering the development of energy and information philosophies necessary for a holistic comprehension of cosmic origins (Liu, 2025).

Building upon these four discussions, this paper further contemplates the theoretical contradictions between quantum mechanics and relativity. The conflict is not merely a discrepancy within physics but an obstacle for science itself—a challenge that science must overcome to guide humanity out of intellectual stagnation, allowing science to ascend with a spiritual essence (Liu, 2024d). This task involves recognizing the soul of the universe (Liu, 2024a; Liu, 2024b), ultimately transforming human consciousness and spirituality (Liu, 2024c). These issues pertain to human survival and existence (Liu, 2024f).

3.1. What Does the “Theoretical Contradiction” Reflect?

Humans are intelligent material beings created by the universe, possessing both consciousness and subjective awareness. We created languages, words, and numerical systems as tools for processing information and further invented logic, coordinate systems, mathematics, and scientific methods to push human understanding of material science to its peak.

Based on current information, it is reasonable to assume that humanity originates from the material universe, as our physical composition corresponds to known elements. Yet, while humans have both a soul and subjective awareness, we cannot definitively articulate the nature of this consciousness. Only when humans invented computers did they realize consciousness resembled computer software, although software lacks self-awareness; it only embodies human input. Human subjective consciousness forms through experience and learning, a trait gifted by the universe.

The universe first created atoms and molecules, then plant cells and plants, animal cells and animals, and finally, human cells and humanity itself. We still do

not fully understand the principles behind this creation or the factors responsible for it (Liu & Liu, 2021b).

Humanity shares many traits with ordinary animals; however, humans alone create languages, words, and numbers, followed by science, thus establishing a fundamental distinction. This unique trait has elevated humans to the top of the biological hierarchy (Liu & Liu, 2021a).

Humans possess the capability for dialectical thinking and philosophical reasoning, expressing these thoughts through linguistics, words, and numerical tools. These tools enable humans to perceive, analyze, and synthesize information, producing unique concepts like coordinate systems and mathematics—an intricate web of information exclusive to humans (Liu & Liu, 2020). The cognitive “software” of human consciousness empowers us to comprehend, create, and re-imagine new information, fostering a complex thought process.

Since humanity’s inception, material philosophy has guided human progress. There was once a cosmic origin theory around 2500 years ago that centered on these universal principles. However, as soon as conflicts arose within this line of thought, philosophers deferred to material philosophy, a shift signaled by the philosophical framework of Aristotle. Now that material philosophy has reached its peak through relativity and quantum mechanics, a similar dilemma resurfaces in modern physics.

This dilemma compels a return to cosmic origin philosophies, encouraging us to seek answers and resolve contradictions. Material philosophy facilitated the birth of physics, which led to the discoveries of energy science and information science. Together, they pushed material science to its zenith.

From an engineering perspective, quantum mechanics and relativity complement each other and offer material benefits, but theoretical contradictions persist, arising from humanity’s continued reliance on material philosophy to interpret energy and information sciences. The problem lies in the fact that energy and information extend beyond the material domain.

This theoretical contradiction starkly illustrates a conflict within human development—our subjective consciousness and intellectual understanding are at odds, suggesting potential issues within humanity’s “mind software.” Furthermore, new forms of religious sentiment have emerged, as humanity crafts stories and myths reminiscent of time-travel narratives, even as they defy thermodynamic principles (Liu, 2024i).

The contradictions between quantum mechanics and relativity epitomize a more profound human dilemma, one that resonates across various aspects of human life and work.

3.2. How Do Scientists Approach This Contradiction?

3.2.1. Solvay Conference

The contradiction between relativity and quantum mechanics endures, yet scientists have managed to harness these theories to usher in the Third Industrial Revolution and set the stage for the Fourth. Theoretical scientists, guided by scientific

methods and philosophical insights, continue to search for solutions, with one prominent forum for these discussions being the Solvay Conference.

Scientists embody the spirit of humanity, representing the intellectual heart of the human race. Each brings its own theoretical framework, confident in its correctness. They engage in honest debates, openly sharing ideas without viewing each other's frameworks as adversaries in a win-or-lose battle. Instead, they respect each other, debate, and foster friendships, mutually advancing scientific progress.

With each debate on quantum mechanics at the Solvay Conference, the field advances. The eminent Einstein did not view himself as an authority; rather, he dedicated himself to defending and exploring cosmic truths, unconcerned about whether he won or lost debates.

Ultimately, the contradictions within physics revealed themselves as philosophical and religious questions. One perspective asserted that "God does not play dice," to which a counter-response famously replied, "Don't tell God what to do."

God is the cosmic truth, inherently existing as it is, immune to human intervention. Humanity's sole role is to pursue and explore this truth, a fundamental mission of human existence (Liu & Liu, 2021a).

These great scientists uncovered divine principles within the universe, unraveling cosmic truths. This is both Aristotle's immense contribution to material science and the intellectual trap he left for humanity's thought evolution.

3.2.2. Philosophical Thought

All forms of existence possess consciousness and perception; humans uniquely possess explicit consciousness, often referred to as subjective awareness, which makes humanity distinct (Liu & Liu, 2021a).

Through subjective awareness, humans created language, words, and numerical tools, discovered information, and expressed, stored, and transmitted it across generations. These abilities led to the development of complex tools like mathematics and coordinate systems, instruments for navigating the universe and seeking truth. Yet, these tools are human-made; they provide no absolute truths, only relative truths that represent temporary understandings of cosmic truths (Liu, 2024c).

Both relativity and quantum mechanics introduced their own scientific philosophies, while M-theory, using mathematical frameworks, seeks to unify them, attempting to consolidate all forces. Quantum mechanics identified fermions, bosons, positrons, and electrons; theoretical physics has also presented symmetry theories, among others, showing science's relentless pursuit of philosophical guidance.

Most notably, scientists have uncovered dark matter and dark energy, and established the definition of "seconds" based on the radiation emitted in a material's initial state.

Humanity created systems science, and system science principles eventually formed statistical physics. Scientists are bravely propelling science forward under

the guidance of philosophy. However, scientific philosophy remains limited by Aristotle's material philosophy, constrained by its materialistic framework. Here, I present a new approach inspired by universal origin philosophy to offer a method for addressing these scientific contradictions. (See comprehensive review in references 1-25)

3.3. What Does This Theoretical Contradiction Teach Humanity about Survival and Existence?

The universe exists in a state of contradictions, with the material universe born from cosmic imbalance. Humanity, as a product of the material universe, possesses unique philosophical awareness, the ability to contemplate contradictions, and the creativity to address them. This inherent contradiction represents the cosmic mission for humanity: continually discovering and resolving contradictions. In this way, the universe endows humanity with an essential purpose.

Modern science's theoretical contradictions mirror humanity's ideological conflicts. Recognizing and resolving these contradictions is a challenge humanity must confront on its own.

4. Humanity's Survival and Existence

Humanity's existence is fraught with happiness, sorrow, and limitations. Matter and non-material entities alike possess limitations; although they can perceive, they lack subjective awareness, emotional resonance, or the capacity for language, words, and numbers. Only humans can create language, words, and numbers to express both fundamental and complex existential ideas, articulate contradictions, convey emotional states, and reflect on pain and joy. Humans uniquely possess perception and subjective awareness, embodying both physical and spiritual desire, and a pronounced sense of self (Liu & Liu, 2021a).

Guided by material philosophy, humanity developed material, energy, and information sciences, discovered DNA, harnessed atomic energy, and created robots, gaining knowledge of cosmic principles and mastering some of the divine principles within the universe. In doing so, humanity has become the dominant force on Earth.

Dinosaurs once ruled the Earth but ultimately vanished. They did not understand science or philosophy; they were both created and destroyed by cosmic forces. Dinosaurs did not annihilate themselves.

Today, humanity rules the Earth. We understand science and philosophy, using these to counter cosmic threats. Yet, can humanity protect itself from the threats it poses to itself?

In 2024, the Nobel Peace Prize was awarded to advocates and organizations promoting nuclear disarmament, symbolizing progress in human consciousness and civilization. Ultimately, all applications of information and energy sciences toward human warfare should be opposed and eliminated. Weaponizing science ultimately turns cosmic principles against humanity itself, potentially leading to

human extinction (Liu, 2024c; Liu, 2024f).

Humanity exists in a universe defined by contradictions, requiring humans to find, understand, and resolve them. Harmony, mutual respect, and unity form the essence of humanity's purpose in the cosmos.

The savior of humanity is the human spirit itself, the essence of universal origin philosophy.

Summary of Universal Origin Philosophy

Space: Space is the mother of all existence, uniting yin and yang. Material philosophy and science define space only in terms of distance, size, quantity, and the man-made concept of time, which does not capture the true essence of space.

Time: Time is a conceptual description created by humanity to mark the processes of material existence. Non-material entities can still be described within a "time-zero" base coordinate system, depicting their existential process.

Matter: Matter is a true entity with gravitational mass, undergoing change over time. This time-bound process is thermodynamically irreversible, and humans describe its evolving nature through time. Matter embodies both positive and negative entropy. While positive entropy has been studied extensively, negative entropy remains largely unexplored. Matter originates from and ultimately returns to energy, with the speed of light as the threshold for gravitational mass.

Humanity: Humanity is an intelligent material being, a cosmic ruler. Human existence, both individual and collective, is shaped by the thoughts and reflections of the human mind.

Energy: Energy is the primary existence of the material universe, of which matter is but a special form. Through interactions between force and temporal information, energy undergoes transformations across different states.

Information: Information is a divine existence, a perceptual phenomenon of force and time. It is an innate property of matter and energy, emerging from the perception and awareness of their existence. Humanity's understanding of the philosophy of energy and information remains incomplete.

Humanity's exploration of cosmic truths is an eternal journey. Current knowledge and information are far from sufficient for humanity's survival and existence. The path of scientific inquiry remains long and challenging.

The solar system resembles a cosmic fleet, with the Sun leading Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus, and Neptune through the outer regions of the Milky Way, advancing bravely. Humanity exists on Earth, but we remain unaware of where the Sun and the Milky Way are leading us within the vast universe.

The Earth, a small vessel in the solar system, drifts through the cosmos. Humanity exists within this vessel, bound by a shared destiny. We must recognize, understand, and resolve our contradictions.

5. Conclusion

Following six articles published in the UK exploring universal origin philosophy,

this article uses the principles of universal origin to engage in a fifth discussion of the theoretical contradictions between relativity and quantum mechanics.

The universal origin philosophy left by our ancestors seems to await the contradictions that have now emerged in modern physics. Aristotle established material philosophy and material science, which have led humanity to the pinnacle of scientific achievement. While material philosophy and science have greatly benefited humanity, they have also confined human thought within the bounds of material understanding, limiting deeper intellectual exploration.

The theoretical contradictions between quantum mechanics and relativity represent only one of many contradictions humanity faces in both science and daily life. Material philosophy bases itself on material existence, while universal origin philosophy is grounded in the essential nature and spiritual aspects of space and the void. Humanity currently stands at the apex of material science, but we must break free from the limitations that material philosophy imposes on our thinking. Only by integrating cosmic origin principles into the development of material, energy, and information sciences can science continue to progress.

This task requires drawing upon the philosophical insights left to us by our ancestors.

Humanity needs cosmic origin philosophy to transcend the boundaries of material philosophy. Only then can we find new paths for our existence and survival? Scientific thought has no end; as long as humanity exists, philosophical thought will continue, guiding humanity's ongoing progress.

Data Availability Statement

In line with publication standards and terms, the article's data is open access, supporting knowledge sharing. Special thanks to the contributions from referenced sources.

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*.
<https://www.bipm.org/utis/common/pdf/CGPM/CGPM13.pdf#page=103>
- Aristotle (2016). *Metaphysics*. Taihai Publishing House.
- Aristotle (2019). *Physics*. Commercial Press.
- Ge, X. (2015). *Qingjing Jing (Classic of Purity and Tranquility)*. Central Compilation & Translation Press.
- He Guanzi (Ancient) (2022). *He Guanzi, annotated by Zhang Weiwen*. Zhonghua Book Company.
- Hecht, E. (2019). *Optics*. Electronics Industry Press.
- Laozi (2019). *Laozi Dao De Jing Annotations*. Zhonghua Book Company.
- Leibniz (1996). *The Leibniz-Clarke Correspondence*. Commercial Press.

- Liezi (2016). *Liezi. Annotated by Ye Beiqing*. Zhonghua Book Company.
- Liu, H. J., & Liu, S. (2020). *Reflection and Research on the Origin of the Universe*. Taipei Warmth Publishing.
- Liu, H. J., & Liu, S. (2021a). *Thoughts and Research on Human Origins*. Taipei Warmth Publishing.
- Liu, H. J., & Liu, S. (2021b). *Zero-Dimensional Universe—The Survival Test of All Things*. Taipei Warmth Publishing.
- Liu, H. J., & Liu, S. (2021c). *Zero-Dimensional Universe—The Absolute Space Test*. Taipei Warmth Publishing.
- Liu, H. J., & Liu, S. (2021d). *Tao Te Ching—Universal Declaration*. Taipei Warmth Publishing.
- Liu, H. J., & Liu, S. (2024). *Textual Research of the Universe's Original Classics*. Taipei Warmth Publishing.
- Liu, S. (2021a). Cosmic Space in Zero Dimension: A Discussion on Spatial Questions According to 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—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.
- Liu, S. (2024a). *Exploring the Essence of the Universe*. Great Britain Journals Press.
- Liu, S. (2024b). *Second Exploration of 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.
- Liu, S. (2024g). Scientific Cosmological Ontology. *Open Journal of Philosophy*, 8, 628-648. <https://doi.org/10.4236/ojpp.2024.143043>
- Liu, S. (2024h). Modern Physical Philosophy Framework. *Open Journal of Philosophy*, 8, 709-729. <https://doi.org/10.4236/ojpp.2024.143049>
- Liu, S. (2024i). The Physical Principles of Natural Philosophy. *Open Journal of Philosophy*, 14, 967-994. <https://doi.org/10.4236/ojpp.2024.144063>
- Liu, S. (2025). Reflection on Science Philosophy—Fourth Reflection on the Contradictions between Quantum Mechanics and Relativity Using the Cosmic Origin Principle. *Open Journal of Philosophy*, 15, 19-40. <https://doi.org/10.4236/ojpp.2025.151003>
- Newton (2017). *Mathematical Principles of Natural Philosophy*. Beijing Institute of Technology Press.
- Ohguri, H. (2015a). *Strong Interaction and Weak Interaction*. People's Posts and Telecom-

munications Press.

Ohguri, H. (2015b). *Superstring Theory*. People's Posts and Telecommunications Press.

Russell (2017). *A History of Western Philosophy*. Taihai Publishing House.

Shakyamuni (2019). *Supervised by Master Xingyun, Diamond Sutra, translated by Cheng Gongrang; Heart Sutra, translated by Dongchu*. Oriental Publishing House.

Smolin (2017). *Time Reborn: From the Crisis in Physics to the Future of the Universe*. Zhejiang People's Publishing House.

Tille, F. (2014). *History of Western Philosophy*. Guangming Daily Press.

Webb, J. (2018). *Nothing: From Absolute Zero to Cosmic Oblivion—Amazing Insights into Nothingness*. Commercial Press.

Zhuangzi (Ancient) (2017). *Zhuangzi*. Translated and annotated by Sun Tonghai, Zhonghua Book Company.