Speed and the Speed of Light, Density, Change, and Absolute Zero-Motion and Change in the Principles of the Philosophy of the Cosmic Origin

Samo Liu

ABSTRACT

Speed is a physical or sociological term for the motion and change of matter — the distance traveled by matter per unit of time and the rate of change in the structural form of "existence" per unit of time. It relates to the three-dimensional spatial coordinate system and is a physical unit associated with time and space. It represents human-created physical knowledge and information that "materializes" space and time (Materialization), serving as a necessary condition for studying physics, the motion and change of matter, and as an important unit in the philosophy of matter and a key reference indicator in the philosophy of the cosmic origin.

The existence and change of position and structure are necessary indicators in the philosophy of matter and physics, and serve as causal–logical reference indicators in the philosophy of cosmic origin.

Keywords: motion, change and speed; density, structure and existence; speed of light and absolute zero; matter and non-matter; perception of existence; "physics.

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ABSTRACT

Speed is a physical concept that describes the motion and change of matter. It refers to the distance traveled by matter per unit of time and the rate of structural change in existence over time. It relates to the three-dimensional spatial coordinate system and is a physical unit associated with time and space. It represents human-created physical knowledge and information that "materializes" space and time (Materialization), serving as a necessary condition for studying physics, the motion and change of matter, and as an important unit in the philosophy of matter and a key reference indicator in the philosophy of the cosmic origin.

The existence and change of position and structure are necessary indicators in the philosophy of matter and physics, and serve as causal–logical reference indicators in the philosophy of the cosmic origin.

Density is the physical unit of matter or energy's existence in three-dimensional space — the amount of matter–energy–existence per unit volume. It relates to the three-dimensional spatial coordinate system and describes the structure and form of space and the existence within space. It is human-created knowledge and information resulting from "materializing" space, representing a necessary condition for studying physics and the existence of matter, an important indicator in the philosophy of matter, and a key reference in the philosophy of the cosmic origin. Density is independent of time and describes only the structural distribution of matter or energy in space.

The speed of light and absolute zero are theoretical limits discovered in physics- units in Einstein's theory of relativity, Kelvin's "theory of absolute zero," as well as optics, electromagnetics, quantum mechanics, and thermodynamics (Samo Liu, 2024i). They are important knowledge and information in the philosophy of the cosmic origin.

This article interprets Aristotle's Physics and deduces that mechanics can be the theory of relativity of "existence".

Keywords: motion, change and speed; density, structure and existence; speed of light and absolute zero; matter and non-matter; perception of existence; "physics".

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I. LITERATURE REVIEW

In the history of the philosophy of science, Newton and Leibniz- philosophers of science who seriously contemplated the concepts and origin of space and time- disputed the notion of absolute space. Their debate is famously recorded in *The Leibniz–Clarke Correspondence*.

Newton proposed the concept of absolute space. Leibniz, from the perspective of defending God, opposed it; paradoxically, Leibniz ended up proving the concept of absolute space (Leibniz, 1996; Samo

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Liu, 2021c). In *The Leibniz–Clarke Correspondence*, Clarke described absolute space in many ways- "supra-world space," "space without bodies," "space as a property rather than an entity," and so forth. Leibniz, in just one sentence, scientifically proved the existence of absolute space: "Let me show you how I prove it - space is something absolutely uniform; if there were no objects placed in it, one point in space would be absolutely indistinguishable from another" (Leibniz, 1996, p.18).

Academia has long believed that Leibniz opposed absolute space, but a careful reading of his works reveals that he did not deny it. Rather, he debated with Newton and Clarke on *what* absolute space is. In doing so, he supplemented Newton's incomplete account and even proved its existence.

Without matter, there is no position or distance for matter to exist in, no temporal process or structural form of existence, and naturally no speed of matter's motion. This is a fundamental principle of the cosmic origin, demonstrated in the Newton–Leibniz debate.

In Newton and Leibniz's era, electromagnetics, thermodynamics, relativity, and quantum mechanics had yet to emerge. The divine act of creation was conceived only in terms of matter. Where, then, was the "divinity" of matter's creation? They did not have the knowledge or information to answer this. From his theological stance, Leibniz argued that God exists in that place where there is no matter, no material distance, and no material time. Since this divine nature was unknown, he cautioned against speculating lightly on the matter. Unfortunately, before the debate concluded, Leibniz passed away, leaving his reflections to later generations.

Einstein's theory of relativity tells us that matter is created from the "divinity" of light and the speed of light. It also teaches that matter — and all existence — exists in time with a "density" structural form and moves and changes under the name of "speed," with the ultimate limit of speed being the speed of light — a truth of physics. Einstein's message is not about "reversing spacetime," but about the way existence changes in form and process within spacetime. This profound insight compels us to reconsider the concept and origin of "time and space" (Samo Liu, 2025g).

Quantum mechanics tells us that matter is created from the "divinity" of particles, quarks, fermions, and bosons — a divinity already scientifically proven. It also tells us that this divinity has wave–particle duality, uncertainty, and entanglement when creating matter.

We do not yet know what kind of "divinity" creates particles and quarks, but physics has discovered dark matter and dark energy — forms of existence that conform to thermodynamic principles and are not at absolute zero.

Lord Kelvin's "theory of absolute zero" tells us that the lowest possible temperature at which all change in matter and existence ceases is absolute zero (0 K, −273.15 °C). At this state, density and speed do not exist — the minimal limit of matter and existence's motion and change. Later, the Planck temperature set the upper limit for matter's motion and change — the universe's highest temperature, 1.4×10^{32} °C, where particle energies approach the Planck energy (2×10^{9} J) and corresponding wavelengths shrink to the Planck length (1.6×10^{-35} m).

By the same logic, the speed of light is the upper limit of matter's motion, while zero speed and zero change correspond to the lower limit — absolute zero.

The principle of the cosmic origin tells us: heat is not a force but a human-created physical concept- something perceived and sensed by "human beings," "matter," and "existence," expressing the motion, Change and Balance of "existence." Absolute zero, the Planck temperature, and the speed of light are fundamentally equivalent in origin — representing "zero" and "infinity" of existence (Samo Liu, 2024i) - a proposition for academic discussion and verification.

Humankind has also discovered the principles of electromagnetics, revealing that all matter and existence have structured forms with Yin–Yang structural states. Electromagnetic waves are light waves at the speed of light, and all energy can be expressed in terms of electromagnetic and thermal energy.

For example, space without matter or material energy — "Wu Ji无极" (Infinite and One, yuanyi元一) — is a binary Yin–Yang state, alive, and can be called an electromagnetic (Yin–Yang阴阳) state. Under the divine influence of mechanics, the universe enters a "Tai Ji太极" Yin–Yang form of "Energized matter" and "materialized energy," still a living electromagnetic (Yin–Yang阴阳) structure.

Science has discovered theories such as the Big Bang and black holes, all of which point to the existence of a "divinity" creating the "Wu Ji无极" and "Tai Ji太极" of the universe, generating the knowledge and information of known existence. Whatever logical framework is applied, "divinity" can be expressed through "physical mechanics." The principles of such mechanics are the principles of the Yin–Yang perception of all existence and the living universe — existence has perception, and mechanics is the theology of the cosmos (Samo Liu, 2024i; 2024h; 2024g).

This principle can be logically found, via dialectical materialism, in Taoist philosophy, Buddhist philosophy, and the ancient Greek philosophical thought on the cosmic origin. The knowledge and information created through the human principles of cosmic origin and the philosophy of matter can already form a self-consistent system. I have written many articles on this and call upon the academic community for discussion (Samo Liu, 2025f).

Mach was a great physicist. He refuted Newton's proof of absolute space by pointing out its weaknesses and raised doubts about the concept of absolute space. Mach's opposition was valid, but it could not prove Newton's absolute space to be wrong. Newton, using the (mathematical) physical principles of the philosophy of matter, argued that space without the existence of matter inevitably leads to contradictions — a point already proven by Leibniz. Leibniz's proof of absolute space did not address Mach's objections.

Mach authored *The Science of Mechanics: A Critical and Historical Account of Its Development* (Ernst Mach, 2014). From studying this work, it appears he was a mathematical formalist who regarded the universe in a mechanical way, treating matter and existence as a kind of "lifeless being." Mach was a staunch materialist, and there is no evidence that he explored or studied the concept and origin of space and time. His thinking, however, influenced Einstein.

For reasons unclear, academia came to regard absolute space as refuted. The deeper roots likely lie in post-Aristotelian philosophy, where the universe was "assumed" to be material — making space without matter unimaginable. Yet the achievements of thermodynamics, relativity, and quantum mechanics compel humanity to imagine space and time without matter, in order to reflect on the origins of the universe and of humanity (Liu Hongjun & Samo Liu, 2020; 2021a).

This paper discusses the fundamental principles of motion and change in the cosmic origin from the perspectives of speed and the speed of light, density, and the two "relativities" of absolute zero, as well as considering the "relativity" of electromagnetics, the strong force, and the weak force.

The discussion focuses on the scientific–philosophical ideas of Newton and Leibniz and on Aristotle's *Physics*. The philosophical foundation lies in the cosmic origin thought of Taoist philosophy, Buddhist philosophy, and ancient Greek philosophy, combined with dialectical materialism and modern scientific philosophy. The scientific knowledge base draws from modern physics, modern science, and mineral processing.

II. DISCUSSION

Speed and density are the main topics of this paper. They represent the form and process of matter, energy, and all existence, reflecting the change and movement of "existence" in its process of being, in both form and position.

Change is the theme of existence. It symbolizes the phenomenon of life within the process of existence and the innate faculty of perception; motion is an objective form of the change of matter.

"Changing existence" belongs to the *yang* aspect; in physics, it is described as matter and energy, including the possible existence of dark matter and dark energy discovered by physics. The origin of change in *yang* existence is governed by the *yin* "mechanical divinity" — a form of causally conditioned governance — which is referred to as information (Samo Liu, 2024a; 2024b).

Mechanics is the mutual relationship of "perceiving" and "being perceived" within the process of existence. This "process" has been depicted by humans using language, text, numbers, and natural phenomena of the solar system, and is called a "unit of time." Time may be the process by which existence perceives mechanics; all mechanics can be described by thermodynamics (Samo Liu, 2025c).

The forms of existence have been depicted by humans as spatial forms — for example, the material world is three-dimensional space, while the non-material world may be zero-dimensional or non-three-dimensional (Samo Liu, 2021a; 2021b; 2021c).

Speed is, in the conventional expression, the change in position/distance and structural form of matter per unit of time. This is the expression physics must adopt for study and representation — but it omits much.

For instance, at the macroscopic level, we overlook the fact that the energy state of matter as mass is constantly changing during motion. At the microscopic level, we treat the existence of matter as lifeless and fixed, whereas in reality this "material existence" is constantly changing in the perceptual process of microscopic thermodynamic time. This change is not purely a physical concept but a "physical–chemical" concept — a concept of the cosmic origin and of the "principle of relativity."

Density is the amount of matter and energy within a unit of space. This unit does not require time; time can be ignored. We may regard this structural form of matter and energy's existence as instantaneous or fixed — a "lifeless" existence. However, this is a theoretical form that can be treated as a real form, yet in reality it is always subject to the principle of relativity of "absolute change."

In physics, there is a great unit for time change — the mathematical unit Δt. Using conventional time units — years, months, days, hours, minutes, seconds — we compare the length of processes. However, if observed with Planck time, this time description is extremely large; if observed with the cosmic time unit of a "kalpa劫," it is extremely small.

Similarly, for length, we commonly use meters, decimeters, centimeters, and millimeters to compare ΔL. Observed at the Planck scale, these are huge; observed in cosmic length units such as light-years or parsecs, they are tiny.

The durations of such processes and the magnitudes of such lengths are constantly changing at every stage of existence. Therefore, at each stage, a zero-coordinate system must be established to compare relative changes. In various coordinate systems, there are beginnings and endings to the changes in form and process.

Their origin lies in light and absolute zero, and they ultimately return to light and absolute zero. All "changing existences" in the universe- whether dark energy, dark matter, particles, quarks, molecules, atoms, matter, or even humanity- share the same concept and fundamental principle of the cosmic origin.

Next, in accordance with the dialectical materialist principles of the philosophy of science, we will reflect on Newton and Aristotle's discussions of these matters, reconsider the relativities of various mechanics, and discuss these questions in connection with the cosmic origin thought in Buddhist philosophy, Taoist philosophy, and ancient Greek philosophy.

2.1. Discussion 1: Existence, Perception, and Sensation

The question of *sensation* is not discussed in this paper. Sensation is an innate faculty universally possessed by humans, and in fact, it is a natural endowment universally possessed by cellular matter.

The question of *perception*, however, is one that academia should attach great importance to and discuss seriously.

From the human perspective, discussing the issue of self-perception can find systematic methods and answers in the cosmic origin thought of Buddhist philosophy and Taoist philosophy. Likewise, traditional medicine and cultivation practices of different nations and ethnicities can also be used to discuss human self-perception — for example, traditional Chinese medicine and Qigong in China.

The quieter the environment, the easier it is to access human self-perception; human sensation will influence human perception. Even ordinary matter without sensation, whether in material or energy form, has perception of its own existence.

The perception of existence can be proven by the existence of "existence" itself, by the motion and change of existence, and by the process of existence. All forms of existence — whether zero-dimensional, non-three-dimensional, or three-dimensional — may experience the process of existence as a comprehensive perception of various forces, ultimately reflecting the thermodynamic balance and cycles of all forms of "existence."

Such "existence," whether dark matter, dark energy, particles and quarks, molecules and atoms, or cells and human cells,Even planets and galaxies, is the totality of matter and material energy responding to and changing in perception of various "forces."

Gravitation is the perception between matter or material energy that possesses "mass." This perception has formed the superclusters, galaxy clusters, and galaxies of the material universe, creating the Milky Way and the Solar System, whose present motion and stability have been utilized by humankind's ancestors to establish the system of process units — years, months, days, hours, minutes, seconds. The creation, existence, motion, and change of matter or material energy possessing "mass" are processes of thermodynamic motion, change, and equilibrium.

Gravitation exists only in the presence of "mass." The highest motion speed of matter is the speed of light, the highest thermal energy is the Planck temperature, and the lowest thermal energy is absolute zero. Beyond this range, gravitation does not exist, because "mass" does not exist, and thus perception between masses does not exist (Samo Liu, 2024i).

Electromagnetism is the perception between the yin–yang structures of matter or material energy. It is unrelated to material mass, but depends on the electric nature of the existence's structure, the polarity of electric charges, and the position of those charges. The medium of yin–yang structural perception is

the light wave. Both material and non-material existence possess this endowment, which conforms to thermodynamic principles, and it is the force responsible for the creation, existence, change, mutual repulsion, and mutual generation of matter (Samo Liu, 2024i).

The strong and weak forces are structural perceptions between particles and quarks. Such perceptions both grant matter "mass" cohesion and enable the yin–yang dual functions of radioactive decay. In the formation process of material "mass," they exhibit wave–particle duality, uncertainty, and entanglement, all of which conform to the principles of thermodynamic motion, change, and equilibrium. Their creation and existence can have non-material zero-dimensional forms, "non-material" one-dimensional lines, two-dimensional membranes, or material three-dimensional forms (cf. M-theory). They may or may not form atomic "mass," depending on thermodynamic principles and on the yin–yang "causal" perception between particles and quarks. The description of their forms can use the Planck length (Samo Liu, 2024i), and the description of their processes can use Planck time.

The forms and processes of dark matter and dark energy are currently unknown and require further theoretical and experimental study in quantum mechanics. However, their principles should conform to the thermodynamic principles of the cosmic origin — perhaps they *are* the thermodynamic principle itself.

Thermodynamics is the comprehensive description of the creation, existence, change, balance, and cycles of all existence in the universe; it is the foundational principle of the cosmic origin.

Through the discussion and analysis of perception in "existence" throughout the universe, we can conclude: Einstein's theory of relativity does not describe the curvature of spacetime, but rather the "relative" motion and change of existence — particularly of the "existence" of material mass — in space and time. It is also a description of the thermodynamic "absolute" existence and change of both material and non-material existence.

Therefore, Einstein's relativity of mass–motion and the Kelvin–Planck thermodynamic relativity are the two fundamental relativities of the motion and change of existence in the universe (Samo Liu, 2024i).

By this logic, electromagnetism, the strong interaction, and the weak interaction should also have their own physical "principles of relativity."

2.2. Aristotle's" Physics" (Aristotle, 2019)

Aristotle's *Physics* is a work that studies origins, causes, and principles.

There are many versions of the Chinese edition of "Physics", totaling eight chapters. Here we quote one version. (Aristotle, 2019)

Chapter 1: Research Subjects and Methods (pp. 1–29)

In Chapter I, Section 1 (Aristotle, 2019, p.1), he proposes that the key to understanding natural things is to study and understand their origins, causes, and principles.

Section 2 (p.2) examines origins. Clearly, Aristotle did not study the systematic cosmic origin thought of Buddhist and Taoist philosophy; instead, he analyzed fragments of ancient Greek philosophers' views on origins — such as the issues of "existence," "the One," and "all things being one." Given the knowledge and information available at the time, Aristotle was unable to analyze these issues clearly.

In Section 3 (p.7), Aristotle used logic to critically evaluate the ancient Greek cosmic origin viewpoints, analyzing and criticizing the idea that the origin is "One" or “existence.”

Without the scientific knowledge of modern physics, quantum mechanics, relativity, or thermodynamics, Aristotle in Section 4 (pp. 11–14) critically addressed, one by one, ancient Greek philosophical views on the cosmic origin, such as the problem of “the One and the Many,” ultimately leaning toward Empedocles’ ideas. Notably, at that time the number zero and the concept of place value did not yet exist.

In Section 5 (pp. 15–18), Aristotle summarized the ancient Greek philosophical view of the cosmic origin as “opposites.” Evidently, ancient Greek philosophy at the time reflected, to some extent, the yin–yang thought found in the *I Ching*.

Sections 6 and 7 (pp. 18–25) discuss whether the number of origins is two or three. At this point, I am reminded of the *Tao Te Ching*’s idea: “一生二，二生三，三生万物” (*No translation*).

Sections 8 and 9 (pp. 25–29) employ the logical thinking of the philosophy of matter to evaluate the ancient Greek philosophical logic of "existence" and “non-existence,” pointing out the importance of logical analysis in problem-solving. Several terms are mentioned here: “change,” “opposite,” “material,” “privation,” “form,” and particularly the task of “first philosophy.” Chapter I is essentially Aristotle’s summary and synthesis of ancient Greek philosophical discussions on the cosmic origin.

“First philosophy” is the philosophical method Aristotle developed from the knowledge and information about the "material world" available to humanity at the time. Using this to study the cosmic origin, I refer to it as “the philosophy of matter.”

Chapter 2: The Study of Nature and Change (pp. 30–55)

In Chapter II, Section 1, Aristotle notes that some existing things exist by nature, while others exist due to other causes. All natural things clearly have within themselves a source of motion and rest. “Nature” is the inherent source and cause of motion and rest in the thing to which it belongs (pp. 30–33).

In his dialectical analysis of nature, he points out that many such things obviously exist, yet some try to prove what is clear with what is unclear — showing their inability to distinguish between self-evident and non-self-evident matters. This is the scientific–philosophical dialectic for analyzing and viewing things, and it is the starting point and foundation of the philosophy of matter, demonstrating that human knowledge and information are always stage-specific relative truths.

Section 2 (pp. 34–37) studies the differences between the work of mathematicians, natural philosophers, and philosophers of idealism. The distinction lies in the objects of nature versus the objects of mathematics. If the truth or reality of nature is disregarded, both philosophers and mathematicians can design theoretical frameworks at will — for example, the philosophical concepts of relativity’s “four-dimensional spacetime” and M-theory’s “hyperspace” model.

Sections 3 through 6 study the concept of “primary cause” (*benyin*) (pp. 37–47), using the logical framework of the philosophy of matter to examine the fundamental causes of “generation and destruction” and “natural change.” In the study of “chance” and “spontaneity,” Section 4 holds that chance and spontaneity are terms used by metaphysicians and philosophers to describe their understanding of things. Section 5 holds that human subjective consciousness can, for a certain purpose, make judgments and form understandings about chance and spontaneity. Section 6 offers a basic conclusion: spontaneity and chance are ways humans reflect upon natural outcomes, and they result from the uncertainty of the “primary cause” (p. 47).

Sections 7 through 9 (pp. 48–55) extend the discussion of the "primary cause" into the logical analysis of the "four causes" — material cause, formal cause, efficient cause, and final cause. This method of logical thinking has its roots in the philosophy of matter and is equally applicable to the philosophy of the cosmic origin. Section 8 raises the question: *Do natural activities have a purpose?* It ultimately concludes that nature is itself a cause and is indeed the final cause. Given the knowledge and information of his time, Aristotle could not clearly articulate what the "final cause" was; he was not a practitioner of cultivation-based perception, but rather a rational logical thinker.

The *Tao Te Ching* regards the universe as "无为而为" (*wu wei er wei*). Section 38 holds that the "final cause" of the universe is the balance of yin and yang (Liu Hongjun & Samo Liu, 2021d), which can be described in terms of thermodynamic creation, motion, change, and equilibrium (Samo Liu, 2024i).

In Section 9 (pp. 53–55), Aristotle uses the philosophy of matter to discuss and study the meaning of necessity in natural objects and natural existence, introducing the concepts of *material* and *material cause*. With today's scientific knowledge and information, one could classify dark matter and dark energy, particles and quarks, molecules and atoms, cells and human beings, into the system category of *material* and *material cause*.

His study concludes that these existences are necessary constituents of the natural universe. They include what is called material existence and its motion and change. He emphasizes that the purpose is the cause of the material, not that the material is the cause of the purpose. The purpose is for the sake of something, and the starting point arises from human definition (p. 55). Therefore, in my study of the cosmic origin, I define the "starting point" as the zero-origin coordinate system of form and process. (Samo liu, 2025g; 2025h)

Chapter Ⅲ *researches Motion and the Infinite (pp. 56–80)*

Section 1 studies the nature of motion (pp. 56–57). Aristotle believes that nature is the source of motion and change. Without space, void, and time, motion cannot exist; without things, there is no motion. Aristotle uses the philosophy of matter to study motion. Evidently, Leibniz's thinking in proving absolute space is consistent with Aristotle's in this regard. Without the knowledge and information of quantum mechanics, relativity, and thermodynamics, it would be impossible to fully conceive of space and the motion and change of existence within space.

He also holds that the number of kinds of existence corresponds to the number of kinds of motion and change (p. 57). His study leads to two conclusions (p. 59):

1. Motion is the realization of a "potential being" as something capable of motion. Today's knowledge and information allow us to interpret "potential being" as the mechanics of physics — something that could not be explained with the knowledge of Aristotle's time.
2. The time during which motion takes place is exactly the time during which the potential being realizes its potential — neither before nor after. Clearly, Aristotle studied the phenomenon of time, but not the origin of time; ancient Greek philosophy lacked knowledge in this area.

Section 2 continues to apply the philosophy of matter to the nature of motion (pp. 59–61), grouping motion and change together and analyzing them through the concept of contact interaction, distinguishing rest, mover, moved, and co-movers. The mover is the origin or cause of motion.

Section 3 studies the mover and the moved, holding that motion occurs within the thing capable of motion and change (p. 61), and that the realization activity of the mover is manifested in the realization activity of the thing moved; the realization activities of the two are unified. He further holds that the mover and the moved are both within the moved, or that the active resides within the active, and the passive within the passive.

Aristotle, as the creator of the philosophy of matter, was likely not a practitioner of cultivation and did not study the issue of “perception.” However, I believe that from the perspective of the philosophy of matter, he logically proved that the motion and change of "existence" is in fact mutual perception. In this section, he proved this point using the logical language of the philosophy of matter.

Interestingly, Aristotle himself might not have fully grasped the significance of this logical deduction, as his works did not elaborate on this conclusion. Yet, no mechanical formula or principle has ever deviated from this profound logical reasoning.

Section 4–8 discussed The Infinite

Section 4 discusses the views of early philosophers on the finite and the infinite, noting that philosophers studying natural philosophy have all discussed the problem of the “infinite,” with most considering the infinite as the initial origin of things (p. 64). Aristotle classifies the views of early philosophers into three types:

One type places the "infinite" among perceptible things, such as Pythagoras. Undoubtedly, such people were practitioners of cultivation, holding that the heavens beyond are infinite (p. 64). In my writings, I classify this under the cosmic origin concept of *Wu Ji*无极 (Limitless).

Another type places the infinite in both perceptible and rational realms, such as Plato, who held there are two kinds of infinite: the infinitely large and the infinitely small (p. 64). In my writings, I classify this under the material origin concept of *Tai Ji*太极 (Supreme Ultimate).

A third type regards the "infinite" as a certain natural thing they call an element. Within this view, there are two opinions: one holds the number of elements is finite; the other, infinite (pp. 64–65). They also hold that the infinite is sacred, because sacred things do not perish (p. 66).
Aristotle reluctantly observes: to deny the infinite creates many inconsistencies; to admit the infinite requires answering whether it exists as a substance, as an attribute inherent in some thing, or as both (p. 67).

From this Section, I conclude: (1) Aristotle was not a practitioner of cultivation but a rational logical thinker; (2) ancient Greek philosophy’s study of the cosmic origin was unsystematic and fragmentary, lacking the systematization of Eastern philosophy, which led Aristotle to face difficulties in analyzing these issues. Nevertheless, this did not deter him — he went on to rigorously analyze and critique the above viewpoints.

Section 5 offers a logical critique of the Pythagorean and Platonic concept of a separately existing infinite (pp. 67–73). Section 6 discusses whether the infinite exists and in what sense it exists (pp. 74–77). Section 7 discusses various ancient Greek philosophical views of the infinite. Section 8 refutes arguments for the existence of an actual infinite (pp. 79–80).

Using the logic of the philosophy of matter, Aristotle analyzes in what sense the infinite exists, in what sense it does not, and what the infinite actually is. These logical analyses in the philosophy of matter are in essence logical analyses of the cosmic origin. Although they could not be fully explained with the knowledge and information of his time, today’s scientific knowledge, modern physics, and research achievements can clarify them.

I invite the physics and mathematics communities to reflect: when you encounter the problem of zero and infinity in your practical work, it may be worth recalling Aristotle’s thinking on the infinite.

Chapter 4 discussed Space, Void, and Time

This Chapter discusses space, void, and time- fundamental issues in human philosophical thought and key to understanding motion and change.

Section 1 examines whether space exists (pp. 81–83). Section 2 asks whether space is form or matter (pp. 84–85). Section 3 investigates whether a thing can be in itself and whether space can be in space (pp. 86–88). Section 4 studies what space actually is (pp. 89–93). Section 5 offers inferences about space (pp. 94–96).

It is clear that Aristotle approached space through the philosophy of matter. Given the knowledge and information available in his time, he could not study space from a non-material perspective. The "unknown" regarding "existence" within space prevented him from expressing the cosmic origin and the origin of matter. Nevertheless, through clear logic in the philosophy of matter, he articulated several points:

> Every elemental body (existent) tends toward its own particular space (p. 95).
> Form is the limit of a thing; space is the limit surrounding a body (p. 91).
> Space is an unmoving container (p. 93).

I consider these statements to be logical inferences, within the framework of the philosophy of matter, about certain partial essences of cosmic-origin space. I will prove the "origin" and "ontology" of "space" in another article.

Sections 6–9 researches The Void

Section 6 studies the views of other scholars on the void (pp. 97–98). Section 7 examines and discusses the meaning of the void (pp. 99–101). Section 8 discusses void not separated from matter (pp. 102–107). Section 9 studies void within objects (pp. 108–110).

I interpret Aristotle's "void" as referring to the "non-material existence" within space. Without modern scientific knowledge and without the systematic perceptual thought of Eastern philosophy, it was difficult for him to study void through the philosophy of matter. Some ancient Greek philosophers affirmed the existence of void; others denied it — leading to contradictions in their studies and conclusions on the cosmic origin (p. 99).

The research and thinking in Section 7 deserve attention from today's academic community. Aristotle studied the existence of "nothing" in space — specifically, the existence of "non-material" within space. He reasoned, using the logic of the philosophy of matter, that it is easy to refute the grounds for proving the existence of void (pp. 101). However, Aristotle did not lightly deny the existence of void.

More than two millennia later, we can reassure Aristotle that what exists there is the "material" aspect of "non-material" energy and information — the origin and the destination of matter (Samo Liu, 2024i).

Section 8 explains that there is no void separated from objects — a typical philosophy-of-matter view in analyzing space and void. If it would be unfair to criticize Aristotle with today's knowledge and information, then the last sentence of Section 8 allows his explanation to be self-consistent: there is no void separated from "existence," because this "existence" can be understood as a union of matter and non-matter (Samo Liu, 2024i).

Section 9 discusses void within objects. This is clearly an application of the philosophy of matter to study void within material objects — in essence, a discussion of the density of material existence.

Modern physics has overturned this form of logical analysis. The existence of void is both inside and outside objects. Theories in quantum mechanics, relativity, and cosmology tell us that we should rethink the origin of the universe and humanity from the perspective of energy and information.

Section 10–14 discussed Time

Section 10 examines doubts about the existence of time (pp. 111–112). Section 11 asks: What is time? (pp. 113–117). Section 12 studies various properties of time (pp. 118–121). Section 13 defines several time-related terms (pp. 122–124). Section 14 presents further thoughts on time (pp. 125–128).

Aristotle thought about time using the philosophy of matter, which reveals that ancient Greek philosophy lacked research on the "origin of time." Treating time as a "material existence" led to the philosophical line of thought in modern physics concerning the "curvature of spacetime."

Taoist philosophy treats time as "the process of existence" and names it through the natural phenomena of the solar system. The *Tao Te Ching* expresses this as: "道可道, 非常道, 名可名, 非常名" and "常有欲以观其徼" (Laozi, 2019), indicating that the form and process of the "being" of existence are finite, bounded, and have beginnings and endings. Humans can name them with language, text, and numbers, but such naming often captures the form rather than the origin (Liu Hongjun & Samo Liu, 2021d).

The *Wenzi* calls the process of time "往古来今谓之宙。" The *Zhuangzi* expresses it as "有长而无乎本剽者宙也" (Samo Liu, 2024i). The *Huangdi Neijing* holds that the human body's cells can perceive the process of time. In my research on stones, I believe both matter and existence can perceive the process of time (Samo Liu, 2025d).

Buddhist philosophy calls the process of existence "du度" (Buddhist expression of the process of existence) and refers to the unit of the universe's existence process as a "kalpa, " defining a kalpa as one day in the life of Brahma — equivalent to 4.32 billion human years. This is a great creative achievement by humankind's ancestors in conceiving the concept of cosmic time (Samo Liu, 2025c; Liu Hongjun & Samo Liu, 2024).

Humanity's creation of everyday time units is likewise a philosophical contribution to measuring the process of material existence. Our ancestors named the Earth's orbit around the Sun a *year*; the Moon's orbit around the Earth, a *month*; the process of one year is about twelve months; the Earth's rotation, a *day*; a day divided into twelve double-hours and twenty-four single hours; each hour divided into sixty *minutes*; and each minute into sixty *seconds*. These fixed units for the process of existence were created by humans as an informational tool for measuring processes, enabling humanity to express the speed of motion and change in material processes (Samo Liu, 2025c).

Quantum mechanics introduced the Planck time unit to express the process of existence for particles and quarks. Without human beings and without the human expression of knowledge and information, the universe proceeds according to its processes, entirely unaffected by whether or not humans express it. It is merely that the universe would lack one particular tool for expressing information.

Accordingly, if humans claim that time can bend or reverse, this only shows that human thought has bent itself. There is only one possibility: the perception that humans and "existence" have of their own process of existence is a natural one.

Chapter 5 discussed The Study of Motion and Change

Section 1 classifies motion and change (pp. 129–132). Section 2 studies the classification of motion "by nature" (pp. 133–136). Section 3 investigates the meanings of several terms: "together," "separate," "contact," "indirect," "successive linking," "successive contact," and "continuity" (pp. 137–139). Section

4 examines motion of the same kind and different kinds (pp. 140–144). Section 5 analyzes the opposition of motions (pp. 145–146). Section 6 analyzes the opposition between motion and rest (pp. 147–152).

This chapter studies the endowment and essence of matter and "existence," as well as the thermodynamic properties of existence — its forms and processes, which is the theme of my article.

Chapter 6 researches Continuation of the Study of Motion and Change

Sections 1 and 2 examine how every continuum consists of continuous yet divisible parts (pp. 153–161). Section 3 studies how a moment in time is indivisible, and that nothing can move or be at rest within a moment (pp. 162–163). Section 4 analyzes that any moving thing is divisible (pp. 164–167). Section 5 states that what has become has already reached its end (pp. 168–171). Section 6 holds that if something changes during a given time, it changes during every part of that time (pp. 172–174). Section 7 discusses the finitude and infinitude of motion magnitude and mover (pp. 175–178). Section 8 concerns tending toward rest and rest itself (pp. 179–181). Section 9 refutes arguments denying the possibility of motion (pp. 182–184). Section 10 states that things without parts cannot move (pp. 185–188).

From my study of Chapters 5 and 6, I believe these two chapters had a great influence on the emergence of Descartes' coordinate system, the calculus of Newton and Leibniz, Kant's antinomies, Hegel's dialectics, and Schelling's natural theology.

From the perspective of my research on the cosmic origin, only light and absolute zero are eternal infinities — without motion yet with intangible yin–yang transformation — serving as the origin of creation, motion, and change for all existence. Every stage of existence has limits to its changes; matter has relativistic change, and material energy also has relativistic change; all require a zero-coordinate system for form and process.

With the knowledge and information available in Aristotle's era, it was impossible to clearly articulate motion and change. Two thousand years from now, our descendants may still mock our ignorance. Nevertheless, Aristotle's rigorous logical analysis is worth studying.

Chapter 7 discussed The Origin of Motion and Change — Mover and Moved

Section 1 states that whatever is moved is moved by something (pp. 189–192). Section 2 holds that mover and moved are together (pp. 193–196). Section 3 maintains that all qualitative change belongs to perceptible qualities (pp. 197–199). Section 4 studies proportionality in motion (pp. 200–205). Section 5 examines the proportion of motion per unit time (pp. 206–208).

Section 1 studies the relationship between mover and moved, concluding that there must necessarily be a first mover. Section 2 studies the yin–yang unity of mover and moved, concluding that this unity proves the perceptual relationship between existences. Section 3 studies that all qualitative change belongs to perceptible qualities; Aristotle was not a practitioner of cultivation, and the perception mentioned here is a logical inference he reached through the philosophy of matter. I interpret Aristotle's description of perception as referring both to human perception and to an innate faculty possessed by "existence." Sections 4 and 5 deal with proportionality in motion and proportion per unit time — essentially the same issue. From the perspective of the philosophy of the cosmic origin, I understand that in human language, writing, and numerical description, motion and change are always relative; however, the property of existence itself is that motion and change are the universe's nature.

Chapter 8 discussed The First Mover and the First Moving Force

Section 1 concludes that motion has always existed and will always exist (pp. 209–214). Section 2 refutes the denial of the eternity of motion (pp. 215–216). Section 3 acknowledges the existence of

things that are sometimes in motion and sometimes at rest (pp. 217–220). Section 4 holds that anything moving is moved by another (pp. 221–225). Section 5 states that the first mover is not moved by anything else (pp. 226–234). Section 6 affirms that the unmoved first mover is eternal and unique (pp. 235–239). Section 7 states that locomotion is the primary and fundamental motion (pp. 240–243). Section 8 says that small circular motion can be continuous and unlimited (pp. 244–254). Section 9 asserts that circular motion is the fundamental primary locomotion (pp. 255–257). Section 10 says that the first mover has no parts or magnitude and is located on the spherical surface of the world (pp. 258–263).

This chapter's logical analysis of the first mover influenced not only the philosophy of the "God of Nature" but also the theology of a personalized God. From the perspective of modern physics' conclusions on the cosmic origin, the first mover is "force" and "the perception of existence" (Samo Liu, 2024i) — it is the information of the universe, akin to the philosophical concept in the *Zhuangzi*: "有长而无乎本剽者宙也。" Using the thought of the cosmic origin to revise Aristotle's philosophy of matter, the "first mover" is the mechanics of physics and the mutual self-perception between existences.

The "mover located on the spherical surface of the world" is purely a concept of the philosophy of matter. The origin of the universe contains no matter — it is the yin–yang dualized natural existence of absolute zero and absolute space, the light of philosophy, theology, and physics.

The universe is the living *Wu Ji* 无极(Limitless) and *Tai Ji*太极 , the *Qian–Kun*乾坤 (Heaven–Earth) existence of yin–yang in constant transformation. The origin is "emptiness" and "nothingness," it is light and absolute zero.

From the above discussion, it is clear that Aristotle's logical analysis gave rise to the philosophical reflection of the "God of Nature" and to the theological thought of a personalized God, and was a forerunner to modern scientific–philosophical thought. The next article will study his *Metaphysics*.

2.3. Newton's Theory of Motion and the "Material Existence" Doctrine

Newton was the discoverer and demonstrator of "material existence." His *Mathematical Principles of Natural Philosophy* (Newton, 2017) is renowned worldwide. By means of the universal law of gravitation (formula omitted, as it is well known), he demonstrated that gravitation in the universe depends solely on the mass and position of "matter" and "material energy." Without mass, there is no gravitation, because without mass and position there can be no perception between masses.

Newton's study of motion dealt exclusively with the motion of matter. There is no indication that he studied the "change" of "existence," nor that he examined the "perception" of matter and existence. His determination of the "first force" was that "God gave it a push." My own analysis of this "divine push" is that it is the perception of existence itself and the mutual perception between existences.

From the standpoint of the philosophy of cosmic origin, I regard Newton as both a rational-thinking scientist and a concentrated, sensorial-thinking philosopher.

He proposed the concept of absolute space — a concept supplemented in proof by his opponent Leibniz, and later criticized by Mach, who argued that Newton's example for proving absolute space was inappropriate. Nevertheless, Newton's profound philosophical concept of absolute space laid the groundwork for resolving philosophical contradictions in modern physics.
When Einstein extended Newton's concept of motion to its limit through light and the speed of light, the great law of mass–energy equivalence emerged. The existence, motion, and change of matter in space is, in the time process, the relativistic change of motion.

Newton also proposed the concept of absolute time, though still from the perspective of the philosophy of matter; he did not investigate the "origin of time."

The above understanding of the philosophical thought of Aristotle and Newton is based on the new perspective provided by the philosophy of the cosmic origin (Samo Liu, 2025f), and forms the basis for the exposition of various "relativities" in mechanics, as presented below for academic discussion and critique.

2.4. The Relativity of "Energy Existence" in Quantum Mechanics

Relativity, analyzed from the perspective of the philosophy of the cosmic origin, is the theory of the relativity of the process by which "existence" exists, moves, and changes in space. It should be understood as the phenomenon of the universe's "absolute existence" in space — and as the origin of that phenomenon — showing that the universe is a living existence.

When special relativity expresses the equivalence of matter and energy through the square of the speed of light and mass (formula omitted, as it is well known), quantum mechanics, conversely, scientifically proves that under the causal conditions of information, energy can give rise to matter. This is the relativity of mutual transformation between energy and matter. By the same logic, the strong and weak forces are the "energy existence" relativity in the creation theory of the material universe — whereby fermions, under the causal conditions of bosons, form matter.

This relativity can be expressed in terms of Einstein's speed of light and subluminal speeds; the speed of light is already infinite in this framework, with nothing exceeding it. It can also be described through the thermodynamic principles of motion, change, and equilibrium, or through the yin–yang structural model of electromagnetics. What it expresses is the relative description of the absolute change of "energy existence" — the expression of the living existence of yin–yang energy.

From the standpoint of the philosophy of cosmic origin, the theory that the strong force gathers energy into matter is the reverse relativity of special relativity, and is equivalent at the level of origin. By the same logic, if the speed of light is the limit for the motion and change of "mass" in material existence, then Planck's law (describing the relationship between blackbody radiation energy distribution and frequency or wavelength), the Planck constant (~6.6260693(11) × 10^-34 J·s), the Planck length (~1.6 × 10^-35 m), the Planck temperature (~1.4 × 10^32 K), and the Planck density (~5.2 × 10^96 kg/m³), taken together, can serve as the limits of change for energy and mass. In form, one might draw on the non-material philosophical concepts of M-theory's points, strings, and membranes to seek the formation of "material mass" nodes — not necessarily called the "God particle," but rather understood as the mutual perception and interaction between particles via the strong and weak forces.

The weak force, like the strong force, should also be understood as the mutual perception and interaction of particles condensing into "material mass." Its decay properties bring about the relativity of the endowment of existence and change in matter. The bosons of the weak force should not possess mass; otherwise, they would lose the informational characteristic of force.

If classical mechanics and special relativity describe the relativity of "matter" as a living existence moving in space and time, then quantum mechanics is the analogous relativity describing "energy" as a living and changing existence in space and time. I submit this interpretation for academic discussion.

2.5. Lord Kelvin's Absolute Zero "Motion and Change" Relativity

In physics, the Kelvin temperature scale (K) is defined as the thermodynamic scale with absolute zero as its zero point. This temperature is an idealized state in which the kinetic energy of molecules and

atoms within matter is reduced to its minimum, yet the quantum mechanical zero-point energy of particles still exists. Thus, molecules never become completely motionless. Absolute zero corresponds to −273.15 °C on the Celsius scale.

This is the physical description arising from the philosophy of matter, and science has already acknowledged that energy can possess zero-point energy. Quanta or particles of energy are in constant change and motion, and therefore should have a coordinate system and process baseline with zero as its origin. In my published work, I have used the logic of the cosmic origin to establish an energy coordinate system with absolute zero as the zero baseline, proposing that energy is a thermodynamic existence of yin–yang life based on the cosmic origin, serving as the yin–yang carrier of mechanical information (Samo Liu, 2025c).

It is often described that, near absolute zero, the thermal de Broglie wavelength becomes very long, and there is significant overlap between the matter waves of particles. Analysed through the logic of the cosmic origin, such energy may be a form of light or electromagnetic wave — a non-material existence that could correspond to zero dimensions and absolute zero. Under the informational action of mechanics, it may take the form of non-material points, strings, or membranes. The academic community might well employ the non-material philosophical concepts of M-theory's points, strings, and membranes to refine thinking about how energy gives rise to matter. Under what conditions does light become photons? Under what conditions can photons transform into the yin–yang states of electrons and positrons? And under what conditions do they exist as points, strings, and membranes? Under what conditions can they form three-dimensional "mass"? I invite scholars to ponder these intriguing questions through a synthesis of material philosophy and the philosophy of the cosmic origin.

It is also often described that absolute zero is obtained by extrapolation from the laws governing ideal gases: at absolute zero, the volume or pressure of a gas would drop to zero. In reality, all gases exhibit pronounced quantum properties as the temperature approaches absolute zero, and the motion of gas molecules no longer follows the statistical laws of classical thermodynamics. As absolute zero is approached, the kinetic energy of molecules tends toward a fixed value — the extreme value called zero-point energy. At this point, all particles occupy the lowest possible energy state, known as the ground state.

The academic community should reflect on the origins of the concepts of extreme value, zero-point energy, and ground state.

From the perspective of the cosmic origin, these concepts describe a zero ground state — infinite in nature — that has no structural form, cannot be described by a state of motion, and cannot be described by the process of time.

Lord Kelvin's theory of absolute zero is, in essence, the "motion and change" relativity of the cosmic origin.

2.6. Planck Parameters and the "Motion and Change" Relativity

If absolute zero represents the lowest limit of the motion and change of "matter and existence" — the origin of matter and existence- then quantum mechanics describes the form and process of the motion and change of "energy existence."

Classical mechanics and Einstein's relativity describe the relative processes expressed through the motion and change speeds of matter, and the limits of the speed of motion and change for three-dimensional "mass" forms.

Applying the same logic of the cosmic origin, all the Planck parameters in quantum mechanics — Planck's law (describing the relationship between blackbody radiation energy distribution and frequency or wavelength), the Planck constant (~6.6260693(11) × 10^−34 J·s), the Planck length (~1.6 × 10^−35 m), the Planck temperature (~1.4 × 10^32 K), the Planck density (~5.2 × 10^96 kg/m³), and so on — can all be considered the extreme limits of the motion and change of "matter and energy existence." Planck's theory thus makes him the creator of the thermodynamic "motion and change relativity" of the cosmic origin.

Planck's relativity and Kelvin's absolute zero relativity are, in physical terms, equivalent.They discovered the limits of "matter" and "existence," scientifically resolving humanity's ignorance regarding "infinite" knowledge.

2.7. Maxwell's Electromagnetic "Structural Change" Relativity

Electromagnetic mechanics, though generated under the guidance of the philosophy of matter as a branch of classical mechanics, reflects the yin–yang, positive–negative pole, and charge-based mutual perception of the "structure of matter and existence" in the universe.

Electromagnetic force depends solely on the existence and position of charges and poles, as well as the magnitude of the charges. Without the positional structure of yin–yang and the magnitude of charge, there is no mutual perception between them (formula omitted, as it is well known). It is independent of material mass, although mass can be converted into electrical energy, thermal energy, and kinetic energy.

When the great physicist Maxwell connected electromagnetism with electromagnetic fields, electromagnetic waves, and light waves, a physical system of cosmic origin — akin to the thermodynamic system — came into being.

If Newton was the physicist of "material motion." then Maxwell was the great physicist of the motion and change of "matter and existence." Electromagnetic mechanics applies equally to material and non-material energy. The "discontinuous" energy described by Planck may correspond to "material" energy, while continuous energy may correspond to the energy of the cosmic origin, which is governed by the information of the cosmic origin. "Nature" itself is the living structural form of yin–yang阴阳。

Later, in quantum mechanics research, physicist Dirac discovered the relationship between photons and electrons/positrons, providing further proof that light is the origin of the universe's yin–yang阴阳 structure. It is said that Dirac had a keen interest in the *Taiji* diagram太极图; through science, he demonstrated the positive–negative, yin–yang relationship of photons, light, and the speed of light, proving the infinite form of the universe's "yin–yang wuji阴阳无极" (limitless yin–yang). Conversely, he also proved the "yin–yang taiji阴阳太极" transformation of light, the speed of light, and photons.

By this logic, light and the speed of light are the origin of photons, electrons, and positrons; photons are the origin of particles; and particles are the origin of material mass. At present, we still do not know the logical relationship between dark matter, dark energy, light, and photons — this may well be the next breakthrough for quantum mechanics (Samo Liu, 2025b).

Electromagnetic mechanics has already developed into the study of the yin–yang structure of the universe and its cosmic origin. It is, in itself, the theory of relativity of the mutual perception of the structural form of "matter and existence" in the universe, with the light as the medium of change.

III. SPEED OF LIGHT AND VELOCITY — EINSTEIN'S "MATTER–ENERGY TRANSFORMATION" RELATIVITY

From the above discussions and analyses, we can see that Newton used the mathematical formula of universal gravitation to express the mutual perception of mass between material bodies. In the macroscopic world, these bodies move and change in accordance with the thermodynamic principle of *entropy*.

Einstein, by introducing the concept of the speed of light and light itself, revealed the equivalence of material mass and energy, and clearly demonstrated the ultimate state of motion for matter, as well as the existence of "matter–energy transformation." In his view, both the process and the ultimate limit of matter's motion and change are energy.

Through the philosophy of matter and a theory of relativity describing the change of matter in time and space, Einstein depicted a living, ever-changing universe. This great theory articulated the mutual transformation between matter and energy, and — at the pinnacle of physics — inspired humanity to re-examine the cosmic origin of the forms and processes of existence in space and time (Samo Liu, 2025a).

This is my comprehensive interpretation of Einstein's relativity from the perspective of the philosophy of the cosmic origin. It is also my reading of Lord Kelvin's absolute zero relativity and, indeed, of all the mechanics above as theories of the relative motion and change of existence within space. Humanity has discovered cosmic truths through physics, but when such matters are considered purely through the logic of material philosophy, contradictions arise. By thinking about these problems from the standpoint of the cosmic origin, new paths may emerge.

The above viewpoints are submitted to the academic community for discussion, critique, and verification.

IV. RELATIVE MOTION AND RELATIVE CHANGE, ABSOLUTE MOTION AND ABSOLUTE CHANGE

Truth is the natural reality of existence and change in the universe. It requires no human description; yet, for the sake of survival and existence, and equipped with the capacity for thought and logic, humans have created tools of information — language, script, and numbers — to describe it. Striving to explore the reality of existence in the universe through science, mathematics, and coordinate systems, we have created knowledge and information.

Humanity uses knowledge and information to study and verify the existence, change, and origin of the universe. The principle of the cosmic origin tells us that the existence of the universe is an objective natural reality, independent of human will — it is alive, and in the course of time it changes in certain spatial forms.

At a given instant, this existence may be considered apart from time, as a structural form characterised by structural density and arrangement. This is the foundation of classical physics — a static physics — yet one of great utility, facilitating the study of physical science.

When Einstein studied physics through "four-dimensional spacetime," he was not exploring a higher dimension of space and time, but rather applying physics to treat existence in the universe as a living subject of study — existence that is alive — thus linking with the cosmic origin philosophy of Daoist and Buddhist thought, and reactivating the cosmic origin philosophy of ancient Greece.

From this perspective, dark energy and dark matter, particles and quarks, molecules and atoms, cells and human cells can all be studied as living, changing existences in the universe. Each can be assigned its own zero-baseline coordinate system for spatial form and temporal process, forming a complete philosophical inquiry into the cosmic origin.

Thus, Einstein's invention of relativity makes it logically possible to infer that thermodynamics, electromagnetism, and the strong and weak nuclear forces are also kinds of relativity. Therefore, the natural essence of space and the existence within it is one of absolute motion and absolute change, as well as relative motion and relative change.

To study such existence, motion, and change, humanity must employ language, script, numbers, science, mathematics, and coordinate systems to understand that the relative motion and relative change of existence reflect the fact that the cosmic origin itself is one of absolute motion and absolute change.

The prerequisite is to understand the origin of space and time. This is the new inspiration that the great theory of relativity brings to human knowledge and information.

IIV. CONCLUSION

Inspired by modern scientific knowledge and information, I have written several books and articles on the philosophical system of the cosmic origin as a new scientific philosophical thought. The logic of this line of inquiry is becoming ever clearer.

Such work requires the broad participation of the academic community, and validation and refinement through the attitude of scientific philosophy.

This article studies form and change, discussing motion, velocity, and the speed of light within the framework of physics and thermodynamics. It supplements the logical gaps in Aristotle's *Physics* that arose from the absence of knowledge and information at the time, and it is my hope that the academic community will pay attention to and debate these ideas.

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The author declares no competing interests.

Data Availability Statement:

In accordance with publishing policy and ethical standards, the data and concepts presented herein are public, in support of open knowledge sharing.

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速度与光速，密度，变化和绝对零度 --宇宙本原哲学原理的运动与变化

Samo Liu

文章摘要

速度是物理学或社会学中描述物质运动与变化的术语，指单位时间内物质移动的距离及其结构形态随时间推移的变化速率。作为三维空间坐标系的组成部分，它与时空紧密相关，是人类构建的物理知识体系。这种概念如同给时空赋予了实体形态（拟物质化），既是研究物理学、物质运动与变化的必要条件，也是物质哲学的重要研究单元，更是宇宙本原哲学中的关键参考指标。

位置和结构的存在与变化是物质哲学和物理学的必要指标，也是宇宙本原哲学中的因果逻辑参考指标。

密度是物质或能量在三维空间中存在时的物理单位—即单位体积内物质－能量－存在的总量。它与三维空间坐标系相关联，描述了空间的结构形态及其中的存在状态。作为人类通过“拟物质化”空间创造的知识体系，密度不仅是研究物理学和物质存在的必要条件，也是物质哲学的重要指标，更是宇宙本原哲学的关键参照。该概念与时间无关，仅描述存在的结构形态。

光速与绝对零度是物理学中发现的理论极限—这些单位存在于爱因斯坦的相对论、开尔文的“绝对零度理论”，以及光学、电磁学、量子力学和热力学等领域（*Samo Liu,2024i*）。它们是宇宙本原哲学研究中重要的知识体系。

本文章诠释亚里士多德《物理学》并推论诸力学均可以是表达“存在”的相对论。

关键词：运动、变化和速度；密度、结构和存在；光速和绝对零度；物质和非物质；存在的感知；《物理学》。

I. .文献综述

在科学哲学史上，牛顿和莱布尼茨—这两位认真思考过空间与时间概念及本原的科学哲学家—曾就绝对空间的概念展开过争论，他们的辩论被记录在著名的《莱布尼茨-克拉克通信》中。

牛顿提出了绝对空间的概念，莱布尼茨从捍卫上帝的角度对此提出反对；颇具讽刺意味的是，莱布尼茨最终却证明了绝对空间的概念（莱布尼茨，1996；Samo Liu,2021c）。在《莱布尼茨-克拉克通信》中，克拉克以多种方式描述了绝对空间—“超世界空间”“无物体的空间”“作为属性而非实体的空间”等等。

莱布尼茨仅用一句话就从科学上证明了绝对空间的存在：“让我向你们展示我是如何证明它的—空间是绝对均匀的东西；如果没有物体放置其中，空间中的一个点将与另一个点完全无法区分”（莱布尼茨，1996，p18）。

长期以来，学界一直认为莱布尼茨反对绝对空间，但仔细阅读他的著作就会发现，他并没有否认绝对空间。相反，他与牛顿和克拉克就绝对空间是什么进行了辩论，在此过程中，他补充了牛顿不完整的论述，甚至证明了它的存在。

没有物质，就没有位置或距离供物质存在，没有时间过程或结构形式的存在，自然也就没有物质运动的速度。这是宇宙本原的基本原理，在牛顿与莱布尼茨的辩论中得到了体现。

在牛顿与莱布尼茨的时代，电磁学、热力学、相对论和量子力学尚未问世。当时人们仅从物质的角度理解神的创造行为，那么物质被创造时的“神性”究竟何在？他们既缺乏知识也无从解答。莱布尼茨从神学

角度提出：上帝存在于没有物质、没有物理距离、没有物理时间的地方。由于这种神圣本质尚不可知，他告诫世人切莫轻率揣测。可惜这场哲学辩论未竟，莱布尼茨便溘然长逝，将这些思考留给了后世。

爱因斯坦的相对论揭示，物质由光的“神性”与光速构成的。该理论还阐明：物质—乃至所有存在—都以特定的“密度”结构形式存在于时间之中，并以“速度”为名进行运动与变化，其终极极限正是光速—这是物理学的真理。爱因斯坦的核心观点并非关于“时空倒转”，而是探讨存在形态与过程在时空中的演变规律。这一深刻洞见促使我们重新审视“时空”概念及其本原（Samo Liu,2025g）。

量子力学告诉我们，物质是由夸克、费米子和玻色子这些粒子的“神性”构成的—这种神性已经得到了科学的证实。它还告诉我们，这种神性在创造物质时具有波粒二象性、不确定性以及纠缠现象。

我们还不知道是什么样的“神性”创造了粒子和夸克，但物理学已经发现了暗物质和暗能量—这些存在形式符合热力学原理，而且不是绝对零度。

开尔文勋爵提出的“绝对零度理论”指出，物质与存在的一切变化都会停止的最低温度就是绝对零度（0 K，−273.15°C）。在这个状态下，密度和速度不复存在—这是物质与存在运动变化的最小极限。后来普朗克温度为物质运动变化设定了上限——宇宙最高温度1.4×10^{32}°C，此时粒子能量接近普朗克能 $(2\times10^{9}J)$，对应的波长会缩小到普朗克长度$(1.6\times10^{-35}m)$。

按照同样的逻辑，光速是物质运动的上限，而零速度和零变化对应着下限—绝对零度。

宇宙本原的原理告诉我们：热量并非一种自然力，而是人类创造的物理概念—这种被“人类”“物质”和“存在”感知与体悟的存在，体现了“存在”的运动、变化和平衡。绝对零度、普朗克温度和光速在本质上具有同源性—它们分别代表存在的“零”与“无限”（Samo Liu,2024i）—这一命题值得学术界深入探讨与验证。

人类还发现了电磁学原理，揭示出所有物质和存在都有阴阳结构状态的结构形式。电磁波是光波，在光速下所有的能量都可以用电磁能和热能来表示。

例如，没有物质或物质能量的空间—“无极”（无限和元一）—是一种阴阳二元状态，充满生机，可以称为电磁（阴阳）状态。在力学的神圣影响下，宇宙进入“太极”阴阳形式的“能量化的物质”和“物质化的能量”的阶段，仍然是一个充满活力的电磁（阴阳）结构。

科学界发现了诸如大爆炸理论和黑洞等理论，这些理论都指向一个“神性”的存在—它创造了宇宙中的“无极”与“太极”，并生成了已知存在的知识与信息。无论采用何种逻辑框架，这种“神性”都能通过“物理力学”来表达。这类力学原理正是万物感知与生命宇宙的阴阳法则—存在具有感知能力，而力学则是宇宙的神学（Samo Liu,2024i；2024h；2024g）。

这一原理通过辩证唯物主义的视角，可在道家哲学、佛家哲学以及古希腊关于宇宙本原的哲学思想中找到逻辑依据。人类在宇宙本原理论与物质哲学领域所创造的知识体系，已然形成一个自洽完整的理论框架。笔者已就此撰写多篇论文，并诚邀学术界共同探讨（Samo Liu, 2025f）。

马赫是位杰出的物理学家。他通过指出牛顿绝对空间理论的漏洞，成功驳斥了其论证，并对绝对空间概念提出质疑。尽管马赫的反对意见有理有据，但终究无法证明牛顿的绝对空间理论存在谬误。牛顿运用物质哲学中的（数学的）物理原理，论证了若空间脱离物质存在必然导致矛盾—莱布尼茨已经证明过这一点，莱布尼茨对绝对空间的论证并没有解决马赫的反对意见。

马赫撰写了《力学及其发展的批判历史概论》（恩斯特·马赫，2014）。通过研究这部著作可以发现，他是一位数学形式主义者，以机械论视角看待宇宙，将物质和存在视为一种“无生命的存在”。作为坚定的唯物主义者，没有证据表明他曾探索或研究过空间与时间的概念及本原。不过，他的思想对爱因斯坦产生了影响。

出于某种不明原因，学术界逐渐认为绝对空间理论已被证伪。这种转变的深层根源可能源于后亚里士多德哲学时期—当时宇宙被“假定”为物质实体，没有物质的空间概念难以想象。然而热力学、相对论和

量子力学的突破性成果，迫使人类开始构想无物质的时空形态，以此来探索宇宙与人类本原的奥秘（Liu Hongjun & Samo Liu，2020；2021a）。

从速度和光速、密度、绝对零度的两种“相对性”以及电磁学、强力和弱力的“相对性”等角度出发，探讨了宇宙本原运动和变化的基本原理。

本文重点探讨牛顿、莱布尼茨的科学哲学思想以及亚里士多德《物理学》的理论体系，其哲学基础融合了道家、佛家、古希腊哲学关于宇宙本原的思考，并结合辩证唯物主义与现代科学哲学；科学知识来源则取自现代物理学、现代科学及矿物加工领域。

II. 讨论

速度与密度是本文研究的主要对象，它们代表物质、能量和一切存在的形式与过程，反映了“存在”在它的存在过程中，无论在形式上还是在位置上，都存在着变化和运动。

变化是存在的主题，它象征着存在过程中生命的现象和感知的先天能力；运动是物质变化的一种客观形式。

“变化性存在”属于阳的范畴；在物理学中，它被描述为物质与能量，包括物理学发现的暗物质和暗能量等可能存在形式。阳的存在之变源于阴的“力学神性”—一种因果制约的治理形态—这种机制被称为信息（Samo Liu，2024a；2024b）。

力学是存在过程中“感知”与“被感知”的相互关系。这种“过程”通过人类的语言、文字、数字以及太阳系的自然现象来描绘，被称为“时间单位”。时间可能是存在感知力学的过程；所有力学都可以用热力学来描述（Samo Liu，2025c）。

人类将存在的形式描述为空间形式—例如，物质世界是三维空间，而非物质世界可能是零维或非三维的（Samo Liu，2021a；2021b；2021c）。

速度，用传统说法，是单位时间内物体位置/距离和结构形式的变化。这是物理学必须采用的表达方式—但它忽略了很多东西。

举个例子，在宏观层面，我们往往忽略物质作为质量的能量状态在运动过程中始终处于变化之中。在微观层面，我们把物质的存在视为毫无生气的固定存在，而实际上这种“物质存在”在微观热力学时间的感知过程中不断变化。这种变化并非纯粹的物理概念，而是“物理－化学”概念—它源自宇宙本质，并体现了“相对性原理”。

密度是单位空间内物质与能量的总量。这个单位不涉及时间维度，因此可以忽略时间因素。我们或许会将这种物质与能量的结构形态视为瞬时存在或固定状态—一种“无生命”的存在形式。然而这种理论形态虽可被视作真实存在，但现实中它始终遵循着“绝对变化的相对性”这一基本原理。

在物理学中，有一个衡量时间变化的重要单位—数学单位Δt。我们使用传统的计时单位—年、月、日、小时、分钟、秒—来比较过程的持续时间。然而，如果用普朗克时间来观察，这种时间描述会变得极其庞大；而用宇宙时间单位“卡尔帕”来观察，时间则显得极其短暂。

同样，对于长度，我们通常用米、分米、厘米和毫米来比较ΔL。在普朗克尺度上观察到的这些数字是巨大的；在光年或秒差距等宇宙长度单位上观察到的，它们是微小的。

这些过程的持续时间以及长度的大小在存在的每个阶段都是不断变化的，因此在每个阶段都必须建立一个零坐标系来比较相对的变化，在各种坐标系中，形式和过程的变化都有开始和结束。

它们的起源在光与绝对零度，它们的最终归宿也在光与绝对零度。宇宙中所有“变化的存在”—不论是暗能量、暗物质、粒子、夸克、分子、原子、物质，甚至人类—都具有相同的概念和宇宙本原的基本原理。

接下来，我们将根据科学哲学的辩证唯物主义原则，对牛顿、亚里士多德关于这些问题的讨论进行反思，重新审视各种力学的相对性，并结合佛教哲学、道教哲学和古希腊哲学中关于宇宙本原的思想来讨论这些问题。

2.1. 讨论*1*：存在、感知和感觉

感觉问题不在本文讨论之列，感觉是人类与生俱来的天赋能力，实际上，它是细胞物质所普遍具有的自然禀赋。

然而，感知问题是一个学术界应该高度重视和认真讨论的问题。

从人类的视角来看，讨论自我感知的问题可以从佛家、道家的宇宙本原思想中找到系统的方法和答案，同样，也可以用不同民族、不同国家的传统医学、养生实践来讨论人类的自我认知，比如中国的传统医学、气功。

环境越安静，人就越容易接触到人类的自我感知，人的感觉会影响人的知觉，即使是没有感觉的普通物质，不论是物质形态还是能量形态，都有其自身存在的感知。

对存在的认知，可以通过“存在”本身的存续、存在的运动与变化，以及存在的过程来验证。无论是零维、非三维还是三维的存在形态，其存在过程都可能被视作对各种力量的全面感知，最终反映出所有存在形式所蕴含的热力学平衡与循环往复。

这种“存在”，无论是暗物质、暗能量、粒子和夸克、分子和原子，还是细胞和人类细胞，乃至星球、星系，都是物质和物质能量的总体，对各种“力”做出反应，并在感知中发生变化。

引力是具有“质量”的物质或物质能量之间的相互作用。这种作用形成了宇宙中的超星系团、星系团和星系，孕育了银河系与太阳系。人类先祖正是利用这些天体系统的运动规律与稳定特性，制定了由年、月、日、时、分、秒构成的计时体系。而具有“质量”的物质或物质能量的产生、存在、运动与变化，本质上都是热力学运动、状态变化与平衡过程的体现。

引力的存在必须依托于“质量”。物质的最高运动速度是光速，最高热能是普朗克温度，而最低热能则是绝对零度。超出这个范围后，引力便不复存在—因为此时“质量”已不复存在，物质间的相互作用也就无从谈起（Samo Liu，2024i）。

电磁学是物质或物质能量阴阳结构之间的感知机制。它与物质质量无关，但取决于存在结构的电性质、电荷的极性及其分布位置。阴阳结构感知的媒介是光波。无论是物质存在还是非物质存在都具备这种禀赋，其运作遵循热力学原理，正是这种力量驱动着物质的创造、存在、变化、相互排斥与相互生成（Samo Liu，2024i）。

强相互作用与弱相互作用是粒子与夸克之间的结构性认知。这种认知既赋予物质“质量”的凝聚特性，又实现了放射性衰变中阴阳二元的双重功能。在物质“质量”的形成过程中，它们展现出波粒二象性、不确定性及量子纠缠现象，这些特征均符合热力学运动、变化与平衡的基本原理。其创生与存在可能呈现非物质化的零维形态、“非物质化”的一维线状结构、二维膜状结构，或具有三维物质形态（参见M理论）。是否构成原子“质量”取决于热力学原理以及粒子与夸克间阴阳“因果”认知的差异。描述其形态可采用普朗克长度（Samo Liu，2024i），而描述其过程则需借助普朗克时间。

暗物质和暗能量的形式和过程目前尚不清楚，需要在量子力学中进行进一步的理论和实验研究。然而，它们的原则应该符合宇宙本原的热力学原理—也许它们本身就是热力学原理本身。

热力学是关于宇宙中所有存在的产生、存在、变化、平衡和循环的全面描述；它是宇宙本原的基本原理。

通过对宇宙中“存在”现象的感知进行深入探讨与分析，我们可以得出这样的结论：爱因斯坦的相对论并非描述时空的弯曲，而是揭示了物质质量在时空中的“相对”运动与变化—特别是物质质量这种“存在”在

时空中的动态呈现。该理论同样阐释了热力学意义上的“绝对存在”与“绝对变化”，既涵盖物质世界的存在本质，也涉及非物质世界的运行规律。

因此，爱因斯坦的质量-运动相对论和开尔文-普朗克热力学相对论是宇宙中存在运动和变化的两个基本相对论（Samo Liu，2024i）。

按照这个逻辑，电磁学、强相互作用和弱相互作用也应该有它们自己的物理“相对性原理”。

2.2.亚里士多德的《物理学》（*Aristotle，2019*）

《物理学》中文版存在多个版本，共八章。本文引用其中一个版本（Aristotle，2019）。

亚里士多德的《物理学》是一部研究事物本原、因和因素的著作。

在第一章第一节（亚里士多德，2019， p1）中，他提出理解自然事物的关键在于研究和理解其本原、因和原理。

第二节（p2）探讨了本原问题。显然，亚里士多德并未研究佛教和道教哲学中系统化的宇宙本原理论，而是分析了古希腊哲学家关于本原的观点片段—例如“存在”“太一”以及“万物一体”等议题。鉴于当时所掌握的知识与信息有限，亚里士多德未能对这些命题进行清晰地阐释。

在第三节（p.7）中，亚里士多德运用逻辑批判性地评价了古希腊宇宙本原的观点，分析并批判了“一”或“存在”作为宇宙本原的观点。

在缺乏现代物理学、量子力学、相对论或热力学等科学知识的背景下，亚里士多德在第四节（pp.11-14）中逐一批判性地审视了古希腊哲学关于宇宙本原的观点，例如“一与多”的问题，最终倾向于恩培多克勒的思想。值得注意的是，在那个时代，零的概念和位值体系尚未形成。

在第五节（pp.15-18），亚里士多德将古希腊哲学对宇宙本原的阐释总结为“对立”。显然，当时的古希腊哲学在某种程度上反映了《易经》中的阴阳思想。

第六、七节（pp.18-25）探讨了“一”与“二”的起源数量问题。此时，我联想到了《道德经》中的一句话：“一生二，二生三，三生万物”（不翻译）。

第八、九节（pp.25-29）运用物质哲学的逻辑思维，对古希腊哲学中关于“存在”与“非存在”的论述进行评析，强调逻辑分析在解决问题中的关键作用。文中重点提及若干核心概念：“变化”“对立”“物质”“剥夺”“形式”，以及具有里程碑意义的“第一哲学”研究任务。第一章实质上是亚里士多德对古希腊哲学家关于宇宙本原讨论的系统性总结与思想整合。

“第一哲学”是亚里士多德根据当时人类所掌握的关于“物质世界”的知识和信息发展起来的哲学方法。利用它来研究宇宙的本原，也用它引领了科学发展，我称之为“物质哲学”。第二章研究自然与变化（pp.30-55）

亚里士多德在《物理学》第二章第一节中指出，有些事物是自然存在的，而另一些则是由其他原因导致的。所有自然事物显然都内在地具有运动与静止的来源。“自然”是事物所属之物中运动与静止的固有根源和原因（pp.30-33）。

在对自然的辩证分析中，他指出许多事物显然存在，但有些人却试图用模糊概念来证明显而易见的事实—这暴露了他们无法区分不言自明与非自明之事。这种科学哲学辩证法是分析和观察事物的工具，也是物质哲学的起点与根基，揭示出人类知识与信息始终是阶段性相对真理。

第二节(pp.34-37)探讨了数学家、自然哲学家与唯心主义哲学家的研究差异。这种差异源于研究对象的不同:数学关注自然现象,而哲学则聚焦于抽象概念。若抛开自然界的真相或本质,无论是哲学家还是数学家都能随心所欲地构建理论框架——例如哲学中相对论的"四维时空"概念,以及M理论中的点弦膜"高维空间"模型。

第三至第六节探讨了"本因"(benyin)这一概念(pp.37-47),运用物质哲学的逻辑框架,深入剖析"生灭"与"自然变化"的根本原因。在研究"偶然性"与"自发性"时,第四节指出这些术语是玄学家和哲学家用来描述其认知体系的表述。第五节认为人类主观意识能够出于特定目的,对偶然性和自发性作出判断并形成理解。第六节最终得出核心结论:自发性和偶然性是人类反思自然结果的方式,其根源在于"本因"的不确定性(p.47)。

第7至9节(pp.48-55)对"第一因"　将对"第一因"的探讨延伸至对"四因"——质料因、形式因、动力因和目的因的逻辑分析。这种逻辑思维方法植根于物质哲学,同样适用于宇宙本原的哲学探讨。第8节提出了一个根本性问题:自然活动是否具有目的?最终论证表明,自然是自身的原因,且确实是终极原因。鉴于亚里士多德所处时代的知识局限,他无法清晰阐述"目的因"的本质;他并非修行观照的实践者,而是一位理性逻辑的思考者。

《道德经》将宇宙视为"无为而为"(wu wei er wei)。第38章指出,宇宙的"终极原因"在于阴阳平衡 (Liu Hongjun & Samo Liu, 2021d),这种平衡可以用热力学中的创生、运动、变化和平衡来描述 (Samo Liu, 2024i)。

在第九节(pp.53-55)中,亚里士多德运用物质哲学探讨自然物体与存在本质的必然性,提出了"质料因"和"质料本原"的概念。借助现代科学知识体系,我们可以将暗物质与暗能量、粒子与夸克、分子与原子、细胞与人类等现象,统一归入质料因与质料本原的范畴进行系统分类。(Samoliu, 2025g;2025h)

他的研究得出结论,这些存在是自然宇宙的必要组成部分。它们包括所谓的物质存在及其运动与变化。

他强调,目的才是物质存在的原因,而非物质是目的的原因。目的是为了某个事物而存在,而起点源于人类的定义(p.55)。因此,在我研究宇宙本原时我定义"起点"是形式和过程的零原点坐标系。

第三章研究运动和无限(*pp.56-80*)

第一节探讨了运动的本质(pp.56-57)。亚里士多德认为,自然规律是运动与变化的源泉。若没有空间、虚空和时间,运动便无从谈起;若没有物质存在,运动也就无从发生。亚里士多德运用物质哲学来研究运动现象。显然,莱布尼茨在论证绝对空间时的思维方式与此观点一脉相承。若没有量子力学、相对论和热力学的知识体系,我们根本无法完整理解空间的存在本质,更遑论把握其中蕴含的运动与变化规律。

他还认为,存在种类的数量与运动和变化的种类数量相对应(p.57)。他的研究得出了两个结论(第59页):

运动是"潜在存在"作为能够运动的事物的实现。如今的知识和信息使我们能够将"潜在存在"解释为物理学的力学—这是亚里士多德时代无法用知识解释的。

运动发生的时间正是势能实现其势能的时间,不早于势能,也不晚于势能。显然,亚里士多德研究的是时间现象,而不是时间的本原;古希腊哲学缺乏这方面的知识。

第二节继续运用物质的哲学来探讨运动的本质(pp.59-61),将运动与变化归为一类,并通过接触作用的概念进行分析,区分静止、运动者、被运动者和共同运动者。运动者是运动的本原或原因。

第三节探讨了推动者与被推动者的关联,指出运动发生在具有运动和变化能力的事物内部(*p.61*),推动者的实现活动体现在被推动者的实现活动中;两者的实现活动是统一的。作者进一步提出,推动者与被推动者都存在于被推动之中,或者说主动者存在于主动者内部,被动者存在于被动者内部。

作为物质哲学的奠基人，亚里士多德可能并未亲身体验过修炼之道，也未曾深入研究“感知”这一课题。但在我看来，从物质哲学的视角出发，他通过逻辑论证证明了“存在”的运动与变化本质上是相互感知的过程。在本节论述中，他运用物质哲学特有的逻辑语言，对这一观点进行了系统性地阐释。

值得注意的是，亚里士多德本人或许并未完全领会这一逻辑推导的重要性，因其著作中未对此结论进行详尽阐述。然而，任何力学公式或原理都没有偏离这一深刻的逻辑推理。

第*4-8*节讨论了无限

第四节探讨了早期哲学家对有限与无限的认知，指出研究自然哲学的学者都曾探讨过“无限”这一命题，其中多数人认为无限是万物的初始本原(p.64)。亚里士多德将早期哲学家的观点归纳为三类：

有像毕达哥拉斯这样的人，把“无限”放在可感知的事物之中。毫无疑问，这些人是修炼者，认为天外是无限的(p.64)。在我的著作中，我将这种观点归为无极(无限)的宇宙本原概念。

另一种类型将无限置于可感知和理性领域之中，例如柏拉图，他认为有两种无限：无限大和无限小(p.64)。在我的著作中，我将这种观点归类于物质本原的太极概念。

第三种观点认为“无限”是一种被称为元素的自然实体。在此观点下，存在两种看法：一种认为元素的数量是有限的；另一种则认为无限(pp.64-65)。他们还认为无限是神圣的，因为神圣的事物不会消亡(p.66)。

亚里士多德不情愿地指出：否认无限性会带来许多矛盾；承认无限性则需要回答它是否以实体存在，是作为某种事物的固有属性，还是两者兼而有之(p.67)。

通过这一部分的研究，我得出以下结论：(1) 亚里士多德并非修行实践者， 而是一位理性逻辑的思考 者；(2) 古希腊哲学对宇宙本原的研究缺乏系统性且零散，未能像东方哲学那样形成体系化框架，这使得亚里士多德在分析这些问题时面临困难。然而这并未阻碍他—他继续对上述观点进行了严谨的分析与批判。

第五节对毕达哥拉斯学派和柏拉图主义关于独立存在的无限概念进行了逻辑批判(pp.67-73)。第六节探讨了无限是否存在及其存在形式(pp.74-77)。第七节分析了古希腊哲学中关于无限的多种观点。第八节驳斥了关于实际无限存在的论证(pp.79-80)。

亚里士多德运用物质哲学的逻辑框架，深入探讨了无限存在的本质形态、非存在的维度以及其真实本质。这些关于物质哲学的逻辑推演，本质上是对宇宙本原的理性阐释。尽管当时的知识体系尚无法完全解释这些现象，但借助现代科学知识、物理学理论及前沿研究成果，我们如今已能清晰阐明其中奥妙。

我邀请物理、数学界的同仁们思考：当你们在实际工作中遇到零和无穷的问题时，不妨回顾一下亚里士多德对无穷的思考。

第*4*节讨论了空间、虚空和时间

这一节讨论空间、虚空和时间—人类哲学思想的基本问题，也是理解运动和变化的关键。

第一节探讨空间是否存在(pp.81-83)。第二节分析空间是形式还是物质(pp.84-85)。第三部分研究事物能否独立存在，以及空间是否存在于空间之中(pp.86-88)。第四部分探究空间的本质属性(pp.89-93)。第五部分对空间进行理论推演(pp.94-96)。

显然，亚里士多德是通过物质哲学来研究空间的。考虑到他所处时代的知识水平，他无法从非物质的角度来探究空间。关于空间中“存在”的“未知”状态，使他难以阐明宇宙本原与物质本原。不过，凭借物质哲学中的清晰逻辑，他还是阐述了几个关键观点：

每一个元素体(存在)都倾向于自己的特定空间(p.95)。
形式是事物的界限;空间是包围物体的界限(p.91)。
空间是一个静止的容器(p.93)。
我认为这些陈述是在物质哲学的框架内对宇宙本原空间的某些部分本质的逻辑推论。我将在另外的文章中以此论证"空间"的"本原""本体"属性。
第6-9节.空间

第六节探讨了其他学者对虚空的观点(pp.97-98)。第七节分析并讨论了虚空的定义(pp.99-101)。第八节探讨了未与物质分离的虚空现象(pp.102-107)。第九节研究了物体内部的虚空形态(pp.108-110)。

(pp.108-110)。

我认为亚里士多德所说的"虚空",指的是空间中的"非物质存在"。由于缺乏现代科学知识,又没有东方哲学系统化的认知体系,他很难通过物质哲学来研究虚空。古希腊有些哲学家承认虚空的存在,另一些则予以否定—这种立场差异导致他们在探讨宇宙本原时,研究结论出现了自相矛盾(pp.99)。

第七节的研究与思考值得当今学术界的关注。亚里士多德曾研究过空间中"虚无"的存在—具体而言,即空间内"非物质"的存在。他运用物质哲学的逻辑进行推演,认为要证明虚空存在的依据其实很容易被驳倒(p.101)。然而,亚里士多德并未轻易否定虚空的存在。

两千多年后,我们可以向亚里士多德保证,那里存在的就是"非物质"能量和信息的"物质"方面—物质的起源和归宿(Samo Liu, 2024i)。

第八节阐明,不存在与物体分离的虚空—这是分析空间与虚空时典型的物质哲学观点。若用现代知识和信息来批判亚里士多德有失公允,那么第八节的最后一句话便使他的解释自洽:因为这种"存在"可理解为物质与非物质的结合体,所以不存在与"存在"分离的虚空(Samo Liu, 2024i)。

第九章探讨了物体内部的虚空现象。这显然是将物质哲学应用于研究物质对象内部的虚空—本质上是对物质存在密度的讨论。现代物理学已颠覆了这种逻辑分析方式。虚空既存在于物体内部,也存在于外部。量子力学、相对论和宇宙学理论告诉我们,应当从能量与信息的角度重新思考宇宙与人类的本原。

第*10-14*节讨论时间

第十节探讨了关于时间存在性的疑问(pp.111-112)。第十一节提出核心问题:时间的本质是什么?(pp.113-117)第十二节系统研究了时间的多种特性;(pp.118-121)第十三节对多个与时间相关的术语进行了定义;(pp.122-124)第十四节则进一步阐述了关于时间的深层思考(pp.125-128)。

亚里士多德用物质的哲学来思考时间,这表明古希腊哲学缺乏对"时间本原"的研究。将时间视为"物质存在"导致了现代物理学中关于"时空弯曲"的哲学思路。

道家哲学将时间视为"存在过程",并借助太阳系的自然现象为其命名。《道德经》对此阐释为"道可道,非常道,名可名,非常名"和"常有欲以观其徼"(老子, 2019),表明存在的"本体"形态与过程具有有限性、界限性及始末特征。人类虽能用语言、文字和数字对其进行命名,但这种命名往往只捕捉到表象而非本质(Liu Hongjun & Samo Liu, 2021d)。

文子将时间的流逝称为"往古来今谓之宙"。《庄子》则将其表述为"有长而无乎本剽者宙也"(Samo Liu, 2024i)。《黄帝内经》认为人体细胞能够感知时间的流逝。在石质研究中,我认为物质与存在本身都能感知时间的流逝(Samo Liu, 2025d)。

佛家哲学将存在过程称为"度"(佛家对存在过程的表达),并将宇宙存在过程的基本单元定义为"劫"。其中一劫相当于梵天神的一日,相当于43.2亿个人类年。人类先祖在构思宇宙时间概念方面取得了非凡的创造性成就(Samo Liu, 2025c;Liu Hongjun & Samo Liu, 2024)。

人类创造日常时间单位，本质上是对物质存在过程的哲学性诠释。先祖们将地球绕太阳公转的周期命名为“年”，月球绕地球公转的周期称为“月”；一年约十二个月；地球自转称为“日”；一天分为十二个时辰和二十四单时；每小时划分为六十分钟，每分钟又细分为六十秒。这些固定的时间计量单位，是人类为测量生命进程而创造的信息工具，使我们得以量化物质运动的速度与变化（Samo Liu，2025c）。

量子力学引入了普朗克时间单位来描述粒子和夸克的存在过程。如果没有人类及其知识表达方式，宇宙将按照自身规律运行，完全不受人类认知的影响。只不过在这种情况下，宇宙将失去一种特定的信息表达工具。

因此，如果人类声称时间可以弯曲或逆转，这只能说明人类的思想已经弯曲了。只有一种可能性：人类和“存在”对自身存在过程的感知是自然的。

第五章讨论**了运**动**和**变**化的研究**

第一节对**运**动**与**变**化**进**行分**类（pp.129-132）。

第二节从“**本**质**属性**”**角度探**讨**运**动**的分**类（pp.133-136）。

第三节解析多个术语**的含**义“**共同**”“**分离**”“**接触**”“**间**接”“**连续连**接”“**连续**接触**”及**“**连续**性**”（pp.137-139）。**第第四节考察同**类**型与不同**类**型运**动**的差异**（pp.140-144）。

第五节分析运动**间的**对**立关系**（pp.145-146）。

第六节探讨**运**动**与静止的**对**立关系**（pp.147-152）。

本章研究物质和“存在”的禀赋和本质，以及存在的热力学性质—它的形式和过程，这是我的文章的主题。

第六章研究运动与变化的持续性

第1节和第2节探讨了每个连续统如何由连续可分的部分构成（pp.153-161）。第3节研究了时间瞬间的不可分割性，指出在某一时刻内没有任何事物能够移动或处于静止状态（pp.162-163）。第4节分析了任何运动物体都可被分割的特性（pp.164-167）。第5节指出，已发生的事物已然到达其终点（pp.168-171）。第6节认为，若某物在特定时间段内发生变化，则该变化贯穿整个时间段的每一部分（pp.172-174）。第7节讨论了运动幅度与推动者在有限性与无限性上的区别（pp.175-178）。第8节涉及趋向静止与静止本身的关系（pp.179-181）。第9节驳斥了否定运动可能性的论点（pp.182-184）。第10节明确指出无分体之物无法运动（pp.185-188）。

通过研究第五、六章，可以发现这两章对笛卡尔坐标系的建立、牛顿和莱布尼茨的微积分、康德的二律背反、黑格尔的辩证法以及谢林的自然神学都产生了深远的影响。

从我研究宇宙本原的角度来看，唯有光与绝对零度是永恒的无限—没有运动却蕴含着无形的阴阳转化—它们作为万物创造、运动与变化的源头。每个存在阶段的变化都有其局限性；物质有相对论性的变化，物质能量也有相对论性的变化；所有这些都需要一个以零为坐标系的形式和过程。

在亚里士多德所处的时代，人类已经掌握了各种知识和信息，但仍然无法清楚地阐明运动和变化的概念。两千年后，我们的子孙后代或许还会嘲笑我们的无知。但是，亚里士多德严谨的逻辑分析方法仍然值得我们研究。

第七章讨论了运动和变化的本原—运动者和被运动者

第一节指出，任何被移动的事物都必然由某种力量驱动(pp.189-192)。第二节强调，推动者与被推动者是相互依存的(pp.193-196)。第三节主张，所有质变都属于可感知的属性范畴(pp.197-199。第四节探讨运动中的比例关系(pp.200-205)。第五节则分析单位时间内运动的比例(pp.206-208)。

第一节探讨了运动者与被运动者之间的关系，最终得出必须存在第一运动的结论。第二节研究了运动者与被运动者阴阳相生的统一性，认为这种统一性证明了存在之间感知关系的存在。第三节指出所有质变都属于可感知的属性范畴;亚里士多德并非修行家，此处提到的感知是他通过物质哲学得出的逻辑推论。我认为亚里士多德对感知的描述既指人类感知，也指存在所固有的先天能力(理解这一点很重要)

第八章讨论了第一推动者和第一动力

第一节总结指出，运动自古有之且永存(pp.209-214)。第二节驳斥了否定运动永恒性的观点 (pp.215-216)。第三节承认存在时而运动、时而静止的事物(pp.217-220)。第四节主张任何运动皆由他物驱动(pp.221-225)。第五节阐明第一推动者不受其他事物影响(pp.226-234)。第六节确认无被动的第一推动者具有永恒性与唯一性(pp.235-239)。第七节强调运动是首要且根本的运动形式(pp.240-243)。第八节说明小范围的圆周运动可无限延续(pp.244-254)。第九节断言圆周运动是首要的运动基础 (pp.255-257)。第十节指出第-推动者无分量且无实体，仅存在于世界的球形表面pp.258-263)。

本章对第一推动者的逻辑分析不仅影响了“自然之神”的哲学体系，更深刻影响了 人格化上帝的神学理论。从现代物理学对宇宙本原的结论来看，第一推动者是“力”与“存在感知”(Samo Liu, 2024i)—它本质上是宇宙的信息载体，与《庄子》中的哲学概念“有长而无乎本剽者宙也”遥相呼应。 通过运用宇宙本原理论重构亚里士多德的物质哲学，我们发现“第一推动者”既包含物理学中的力学原理 ，又体现了不同存在体间的相互感知机制。

“位于世界球面的运动者”纯粹是物质哲学的一个概念。宇宙的本原并不包含任何物质—它是阴阳二元化的自然存在，具有绝对零度和绝对空间，是哲学、神学和物理学的光。

宇宙是生生不息的“无极”与“太极”，是阴阳相生相变的乾坤(天－地)存在。其本原是“空”与“无”，是光与绝对零度。

通过上述讨论可以清楚地看出，亚里士多德的逻辑分析催生了 “自然之神”的哲学思考和人格化上帝的神学思想，是现代科学哲学思想的先驱，下文将研究他的《形而上学》。

*2.3.*牛顿运动理论与“物质存在”学说

牛顿是“物质存在”概念的发现者与论证者。其著作《自然哲学的数学原理》(Newton, 2017)享誉全球。通过万有引力定律(公式略去，因其广为人知)， 他证明了宇宙中的引力仅取决于“物质”和“物质能量”的质量与位置。没有质量就不存在引力，因为若缺乏质量和空间定位，不同质量之间便无法产生相互作用。

牛顿对运动的研究仅限于物质的运动。没有迹象表明他研究过“存在”的“变化”，也没有考察物质与存在的“感知”。他对“第一推力”的认定是“上帝施加了推动之力”。而我对此“神圣推力”的分析认为，它本质上是对存在本身的感知，以及不同存在之间的相互感知。

从宇宙本原哲学的角度来看，我认为牛顿既是一个理性思考的科学家，也是一个专注、感性思考的哲学家。

他提出了绝对空间的概念，这个概念在证明中得到了他的对手莱布尼茨的补充，后来被马赫批评，他认为牛顿用来证明绝对空间的例子是不恰当的。尽管如此，牛顿关于绝对空间的深刻哲学概念为解决现代物理学中的哲学矛盾奠定了基础。

当爱因斯坦通过光和光速将牛顿的运动概念延伸到极限时，质量－能量等价的伟大定律就出现了。物质在空间中的存在、运动和变化，在时间过程中，就是相对论性的运动变化。

牛顿也提出了绝对时间的概念，尽管仍然从物质哲学的角度出发，他并没有研究“时间的本原”。

对亚里士多德和牛顿哲学思想的上述理解，是基于宇宙本原哲学（Samo Liu，2025f）提供的新视角，并为力学中各种“相对性”的阐释奠定了基础，如下文所述，供学术讨论和批判。

2.4. 量子力学中“能量存在”的相对性论

相对论，从宇宙本原哲学的角度分析，是关于“存在”在空间中存在、运动和变化过程的相对性理论。它应被理解为宇宙在空间中的“绝对存在”现象—以及这一现象的起源—表明宇宙是一个有生命的实体。

当狭义相对论通过光速的平方与质量关系（公式略去，众所周知）展现物质与能量的等价性时，量子力学则从反面科学证明：在信息因果条件作用下，能量能够产生物质。这正是能量与物质相互转化的相对性。同理，强相互作用与弱相互作用作为物质宇宙创生理论中的“能量存在”相对性—当费米子在玻色子的因果条件下形成时，便构成了物质。

这种相对性可以通过爱因斯坦的光速与亚光速理论来阐释：在此框架下，光速本身已达到无限值，没有任何速度能超越它。这种现象也可以通过运动、变化与平衡的热力学原理，或是电磁学中的阴阳结构模型来描述。其本质是对“能量存在”绝对变化的相对性描述—这正是阴阳能量生命存在的生动体现。

从宇宙本原哲学的视角来看， 强相互作用将能量凝聚为物质的理论 本质上是狭义相对论的逆向相对性，在本原层面具有等效性。同理推断， 若光速是物质存在中“质量”运动与变化的极限，那么普朗克定律（描述黑体辐射能量分布与频率或波长的关系）、普朗克常数（6.6260693（11）×10^-34 J·s）、普朗克长度（1.6×10^-35 m）、普朗克温度（1.4×10^32 K）以及普朗克密度（5.2×10^96 kg/m³），这些参数共同构成了能量与质量变化的极限。在形式上，我们可以借鉴M理论中的点弦、 膜等非物质哲学概念，来探寻“物质质量”节点的形成机制—这种机制未必被称为“上帝粒子”，而应理解为通过强相互作用与弱相互作用实现的粒子间相互感知与作用。

弱作用力和强作用力一样，也应该被理解为凝聚成“物质质量”的粒子之间的相互感知和相互作用。它的衰变特性带来了物质存在与变化相对性的概念。弱作用力的玻色子不应该具有质量；否则，它们就会失去作为作用力的信息特征。

如果经典力学和狭义相对论将“物质”的相对性描述为在时空中的活生生的存在，那么量子力学则是描述“能量”在时空中的活生生且不断变化的存在。我提出这一解释供学术讨论。

2.5. 开尔文勋爵的绝对零度“运动与变化”相对论

在物理学中，开尔文温标（K）被定义为以绝对零度为零点的热力学标度。这个温度代表一种理想化状态—物质中的分子和原子动能已降至最低，但粒子的量子零点能依然存在。因此，分子永远不会完全静止。绝对零度对应摄氏温标下的−273.15°C。

这是源于物质哲学的物理描述，科学界已确认能量可以具有零点能。量子或能量粒子处于持续变化和运动之中，因此应当建立以零为原点的坐标系和过程基准。在我的已发表著作中，我运用宇宙本原的逻辑构建了以绝对零度为零基准的能量坐标系，提出能量是基于宇宙本原的阴阳生命热力学存在，作为承载力学信息的阴阳载体（Samo Liu，2025c）。

常有学者指出，在接近绝对零度时，热德布罗意波长会变得极其漫长，此时粒子的物质波会产生显著重叠。从宇宙本原的逻辑推演来看，这种能量可能以光或电磁波的形式存在—这种非物质的存在或许对应着零维空间与绝对零度。在力学作用下，它可能呈现为非物质的点、弦或膜。学术界或许可以借鉴M理论中关于点、弦和膜的非物质哲学概念，来深化对能量如何催生物质的认知。光在什么条件下会转化为光

子？光子在什么条件下能转化为电子与正电子的阴阳态？它们又在什么条件下会以点、弦和膜的形式存在？在什么条件下能形成三维“质量”？我诚邀各位学者通过物质哲学与宇宙本原哲学的融合，共同探讨这些引人入胜的问题。

人们常将绝对零度描述为通过理想气体定律的外推得出：当温度降至绝对零度时，气体的体积或压力会归零。然而现实中，所有气体在接近绝对零度时都会表现出显著的量子特性—此时气体分子的运动不再遵循经典热力学的统计规律。随着温度趋近绝对零度，分子动能会趋向一个固定值，即所谓的零点能。在此状态下，所有粒子都处于最低能量状态，也就是我们常说的基态。

学术界应该反思极值、零点能和基态概念的本原。

从宇宙本原的角度来看，这些概念描述了一个零基态—本质上是无限的—它没有结构形式，不能用运动的状态来描述，也不能用时间的过程来描述。

开尔文勋爵的绝对零度理论本质上是宇宙本原的“运动和变化”相对论。

2.6.普朗克参数与“运动和变化”相对论

如果绝对零度代表了“物质和存在”运动与变化的最低限度—即物质和存在的本原，那么量子力学则描述了“能量存在”的运动与变化的形式和过程。

经典力学和爱因斯坦的相对论描述了物质运动和速度变化所表达的相对过程，以及三维“质量”形式的运动和速度变化的极限。

运用宇宙本原的同一逻辑，量子力学中的所有普朗克参数— 包括描述黑体辐射能量分布与频率或波长关系的普朗克定律、普朗克常数(6.6260693(11)×10^−34 J·s)、普朗克长度(1.6×10^−35米)、普朗克温度(1.4×10^32开尔文)、普朗克密度(5.2×10^96千克/m³)等—都可以视为“物质与能量存在”运动和变化的极限状态。普朗克的理论因此使他成为宇宙本原热力学“运动与变化相对论”的奠基人。

普朗克的相对论和开尔文的绝对零度相对论在物理上是等价的。他们发现了“物质”“存在”的极限，从科学上解决了人类对“无限”知识的“无知”。

2.7.麦克斯韦的电磁“结构变化”相对论

电磁力学虽然是在物质哲学的指导下产生的，是经典力学的一个分支，但它反映了宇宙中“物质和存在的结构”的阴阳、正负极和基于电荷的相互感知。

电磁力的产生完全取决于电荷与磁极的存在位置及其强度。没有阴阳的位置结构和电荷的大小，它们之间就没有相互感知。(公式略去，众所周知)。虽然物质质量可以转化为电能、热能和动能，但电磁力本身并不依赖于物质质量。

当伟大的物理学家麦克斯韦将电磁学与电磁场、 电磁波和光波联系起来时，一个宇宙本原的物理系统—类似于热力学系统—诞生了。

如果说牛顿是研究“物质运动”的物理学家，那么麦克斯韦便是探索“物质与存在”运动变化的杰出物理学家。电磁力学同样适用于物质与非物质能量。普朗克提出的“不连续”能量可能对应“物质”能量，而连续能量则可能对应宇宙本原的能量—这种能量受宇宙本原信息的支配。“自然”本身正是阴阳相生的鲜活结构形态。

在量子力学研究领域，物理学家狄拉克后来发现了光子与电子/正电子之间的关联，进一步证实了光是宇宙阴阳结构的本原。据说狄拉克对太极图有着浓厚兴趣，通过科学手段，他揭示了光子、光和光速之间的正负阴阳关系，证明了宇宙“阴阳无极”(无限)的无限形态。反之，他也证实了光、光速和光子之间“阴阳太极”的转化关系。

按照这个逻辑，光和光速是光子、电子和正电子的本原；光子是粒子的本原；而粒子又是物质质量的本原。目前，我们仍然不知道暗物质、暗能量、光和光子之间的逻辑关系—这很可能成为量子力学的下一个突破（Samo Liu，2025b）。

电磁力学已发展成为研究宇宙阴阳结构及其宇宙本原的学科。它本身是关于宇宙中“物质与存在”结构形式相互感知的相对论，以光速作为变化的媒介。

III. 光速与速度—爱因斯坦的“物质－能量转换”相对论

通过以上讨论和分析，我们可以看出牛顿用万有引力的数学 公式来表达物质物体之间的相互质量感知，在宏观世界中，这些物体是按照热力学熵原理运动和变化的。

爱因斯坦通过提出光速和光本身的概念，揭示了物质质量和能量的等价性，并清楚地表明了物质运动的终极状态以及“物质－能量转换”的存在。在他看来，物质运动和变化的过程及其终极极限都是能量。

爱因斯坦通过物质哲学与描述物质时空变化的相对论，勾勒出一个充满生机、不断演化的宇宙图景。这一伟大理论不仅阐明了物质与能量之间的相互转化，更在物理学巅峰时刻激励人类重新审视时空存在形式与过程的宇宙本原（Samo Liu，2025a）。

这是我在宇宙本原哲学视角下对爱因斯坦相对论的全面解读。同时，这也是我对开尔文勋爵绝对零度相对论的阐释，以及对前文所述所有力学理论—即空间中存在相对运动与变化的理论体系—的深入剖析。

人类通过物理学探索宇宙真理，但若单纯用物质哲学的逻辑来考量这些问题，矛盾便会显现。若能以宇宙本原为坐标系重新审视这些命题，或许就能开辟出新的认知路径。

上述观点提交给学术界进行讨论、批评和验证。

IV. 相对运动和相对变化，绝对运动和绝对变化

真理是宇宙存在与变迁的自然法则。它无需人类用语言描述，但为了生存发展，人类凭借思维逻辑能力创造了语言、文字和数字这些信息载体。通过科学、数学和坐标系探索宇宙存在的本质，我们最终构建了知识体系与信息网络。

人类利用知识和信息来研究和验证宇宙的存在、变化和本原。宇宙本原的原则告诉我们，宇宙的存在是一种客观的自然现实，独立于人类意志—它是有生命的，并随着时间的推移，在某些空间形式上发生变化。

在某一特定时刻，这种存在可以被看作是脱离时间而存在的，是一种以结构密度和排列为特征的结构形式。这就是经典物理学—一种静态物理学—的基础，但它却非常有用，有助于研究物理科学。

当爱因斯坦通过“四维时空”研究物理学时，他并不是在探索时空的更高维度，而是在将物理学应用于将宇宙的存在视为一个鲜活的研究对象—一个充满活力的存在—从而与道家和佛教思想中的宇宙本原哲学联系起来，并重新激活了古希腊的宇宙本原哲学。

从这个角度来看，暗能量和暗物质、粒子和夸克、分子和原子、细胞和人类细胞都可以被看作是宇宙中活生生的、不断变化的存在，每一个都可以被赋予自己的零基准坐标系，用于空间形态和时间过程，从而形成对宇宙本原的完整哲学探究。

因此，爱因斯坦的相对论发明使我们从逻辑上可以推断出热力学、电磁学和强弱核力也是相对论的一种，空间的自然本质及其存在就是绝对运动和绝对变化，以及相对运动和相对变化。

为了研究这种存在、运动和变化，人类必须使用语言、文字、数字、科学、数学和坐标系来理解存在的相对运动和相对变化反映了宇宙本原本身是绝对运动和绝对变化的事实。

前提是要理解空间和时间的本原，这是伟大的相对论给人类知识和信息带来的新灵感。

V. 结论

受现代科学知识和信息的启发，我写了几本关于宇宙本原哲学体系的书和文章，作为一种新的科学哲学思想，这一研究方向的逻辑越来越清楚。

这样的工作需要学术界的广泛参与，并通过科学哲学的态度进行验证和改进。

本文从物理学和热力学的框架出发，研究形式与变化，探讨运动、速度及光速等问题。它填补了亚里士多德《物理学》中因当时知识信息匮乏而产生的逻辑漏洞，并希望学术界能关注并讨论这些观点。

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