

Title: Is Common Sense in Physics Really Correct?

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Abstract

This paper posits that physical phenomena arise not from equations but from the 'mechanisms' created by matter. In other words, it seeks to examine whether the main physical phenomena can be explained through these mechanisms. Firstly, the cause of the Doppler effect in the electric field is considered. This occurs because 'something' that generates an electric field from a charge continues to move at the speed of light. Here, this 'something' is referred to as a 'spatial element.'

Furthermore, the reason spatial elements do not instantly exhaust from a charge is because the electric field strength and spatial density are proportional. Additionally, the constancy of the speed of light arises because the amount of spatial elements passing through is proportional to the passage of time. Elementary particles are considered as the points from which spatial elements are ejected. Thus, time, space, and the electric field are three-dimensional entities with direction.

Moreover, all physical phenomena arise from the overlap of spatial elements, including gravity, the strong force, the weak force, and electromagnetism. An attempt is made to explain these through the 'mechanisms' formed by spatial elements. There also exist mysterious phenomena that cannot be explained by physics. The mechanisms by which these phenomena occur are explored. In conclusion, physical phenomena are not defined by equations but result from the overlapping of electric fields, which creates a mechanism through which they arise.

Introduction

The theory of relativity asserts the existence of relative relationships. Many people might question this hypothesis. After all, consider a person in a rocket moving away at a constant linear speed. If we were to compare the progression of time between this person and the Earth, we would certainly

obtain an absolute relationship of time. Of course, it is also possible to verify that the rocket's time does not suddenly advance during acceleration.

This paper states that absolute space exists on the surface of all celestial bodies. Therefore, no magnetic field or Doppler effect occurs on a moving Earth. It also argues that since space contracts when an object has velocity, the speed of light does not remain constant.

For example, within a single inertial frame, the magnetic field and the Doppler effect can be observed from all inertial frames. That is, the Doppler effect occurs. This and the change in wavelength are different phenomena.

For example, for an observer moving at half the speed of sound, the Doppler effect of sound disappears. However, they can still detect the compression and rarefaction of air molecules in front and behind them. Similarly, for an observer with a certain velocity, the Doppler effect of the electric field disappears, but they can observe a change in the gradient of the electric field in front and behind themselves.

This paper also constructs theories in a completely different manner from conventional physics. In other words, there exists a material that forms the universe. This material overlaps and creates structures. As a result, these structures give rise to physical phenomena. Furthermore, it is stated that the main physical phenomena can be simply explained by these structures. The study also attempts to elucidate the mechanisms behind mysterious phenomena that cannot be explained by physics.

First of all, matter is equivalent to the existence of fields. These fields are created by positive and negative electric fields. In other words, it is a space where the electric field cannot be observed. This is a state in which the positive and negative electric fields overlap in equal amounts. For this reason, space is filled with high-density electric fields.

Also, when matter moves, a Doppler effect of this electric field occurs. From this, it can be seen that 'spatial elements' which have the property of generating electric fields continue to emanate from matter. Here, we consider the electric field intensity, spatial density, and the gradient of spatial element density, assuming that these are proportional. This allows major physical phenomena to be explained simply and naturally.

Furthermore, an electric field penetrates and passes through objects. However, photons are blocked in their path by objects. Therefore, photons and electromagnetic waves are distinct entities. Also, when an electron and a positron combine, a photon is produced. In other words, electrons and positrons do not disappear even when they combine. As a result, electrons

and positrons are contained within the photon. Therefore, a photon has both an electromagnetic field and kinetic energy.

Additionally, an electric field is an entity with direction. Therefore, the electric field induces direction in both space and time. In other words, time, like space, is a three-dimensional entity with direction. The existence of this 'direction' holds significant importance in the formulation of physical theories.

In other words, the constancy of the speed of light does not mean that the round-trip time over a fixed distance is equal. It means that the speed of light is the same in all directions. Therefore, the constancy of the speed of light cannot explain the contraction of space. Furthermore, the phenomenon in which a group of particles moving at sub-light speeds is compressed in a flat universe cannot be observed, which shows that space contraction does not occur.

Moreover, the double-slit experiment is considered evidence that quantum mechanics is correct. However, the presence or absence of interference fringes is not determined by the presence or absence of 'observation'. In other words, the electric field near the slit is disrupted by electrical appliances that emit electromagnetic waves. Therefore, experiments on interference fringes are affected. That is, charged particles or photons cannot be aware of whether humans are observing them. Therefore, when a human who does not emit electromagnetic waves confirms visually, the interference fringes always occur when observing the path of photons using this method.

Furthermore, I will also point out the discrepancies between observation and theory. That is, why do distant galaxies attract each other while nearby stars do not? Why do the velocities of stars within spiral galaxies remain constant without the arms breaking apart? Why does the shape of electric and magnetic fields not change due to the reflection of light, even though electromagnetic forces arise from photon exchange? Why do black holes swallow gravitons and photons yet do not lose their electromagnetic or gravitational fields? I will demonstrate that such mysterious phenomena can also be explained by mechanisms that produce them.

Moreover, science demands that the truth of theories be judged through debate. However, those with authority who have accepted physics see no need for debate, because they are indoctrinated to believe that all authoritative theories are correct. Such a mistaken habit hinders the development of physics and also impedes the progress of science and

technology. I sincerely hope that this new theory will be tested from a fair standpoint according to scientific methods.

Theory

1. Photons are not electromagnetic waves.

Suppose we place a charge in an electric field. The charge then moves in such a way as to cancel out the electric field. As a result, the electric field inside an object can sometimes disappear. However, the initially existing electric field continues to exist. In other words, the change in the electric field around an object occurs due to the superposition of a new, separate electric field. Moreover, electric fields exist continuously within space. The volumes of atomic nuclei and electrons, which are the components of matter, are extremely small.

Therefore, the electric field passes through objects almost unobstructed. Hence, the electric field does not refract at the water surface. However, particulate photons interact with electrons within atoms. As a result, photons can have their paths altered by matter. Furthermore, the electric field that does not refract at the water surface does not change speed in water. Consequently, since the two differ in shape, speed and properties, it is concluded that photons are not electromagnetic waves.

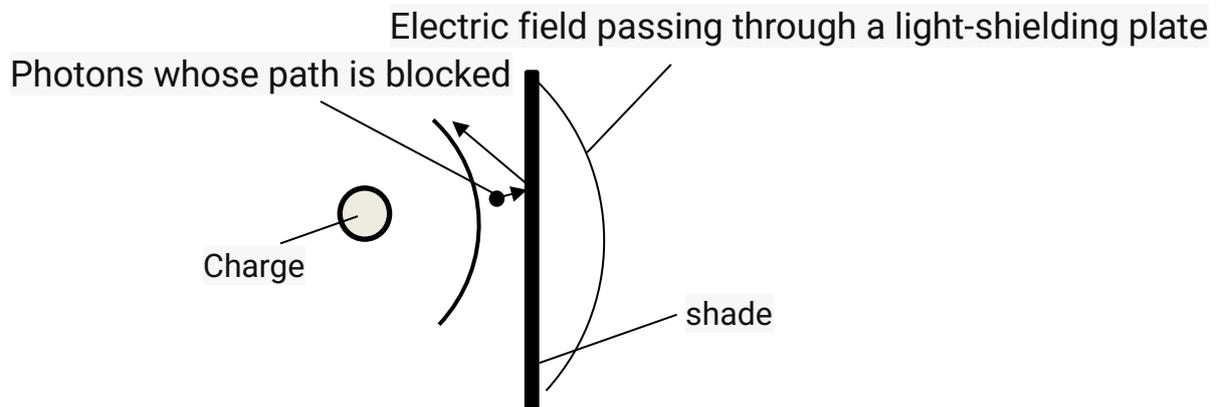
2. Electromagnetic force does not arise through the exchange of photons.

The shape of the electric field cannot be altered by mirrors or lenses because the electric and magnetic fields pass through objects. However, the path of photons can be changed by mirrors or lenses. Consequently, the electric and magnetic fields do not arise from the exchange of photons (Figure 1).

In other words, the electric field penetrates objects and continues to propagate. Regardless of how many times it encounters objects, it travels straight without changing its path. Because of this property, the electric field can fully satisfy Coulomb's law. However, particle-like photons can only exert force intermittently, and photons, which easily change their path, cannot fully establish the laws of physics.

For this reason, the electromagnetic force cannot be conveyed through the

exchange of photons. For the same reason, forces cannot be transmitted by the exchange of other gauge particles either. All forces can only arise through the interaction of electric fields and particles.



(Figure 1) Photons blocked by a light shield do not generate a Coulomb force.

3. Transparent substances do not allow photons to pass through.

When a substance is heated, countless photons are emitted. This occurs because countless photons are packed inside the atoms. Therefore, when photons collide with an atom, they cannot penetrate the interior of the atom. As a result, substances experience reflection, absorption, orbital electron transitions, electron-positron decay and other phenomena due to photon collisions. Here, let us consider photons colliding with a transparent substance.

In this case, only the energy of the photons is transferred to the photons inside the atom. Then, a domino effect occurs between the photons. As a result, the kinetic energy transferred to the photons reaches the far side of the transparent material. The kinetic energy is then transmitted to the photons on the rear surface of the material, causing the photons on the back surface to be ejected. During this domino effect, the speed of the photons decreases. Therefore, the denser the air, the more strongly the speed of the photons is reduced.

By the way, let me discuss neutral electric fields. Positive and negative electric fields have the property of overlapping in equal amounts to become neutral. Therefore, it seems as if electric fields do not exist on the ground. However, positive and negative electric fields do not disappear even when they overlap.

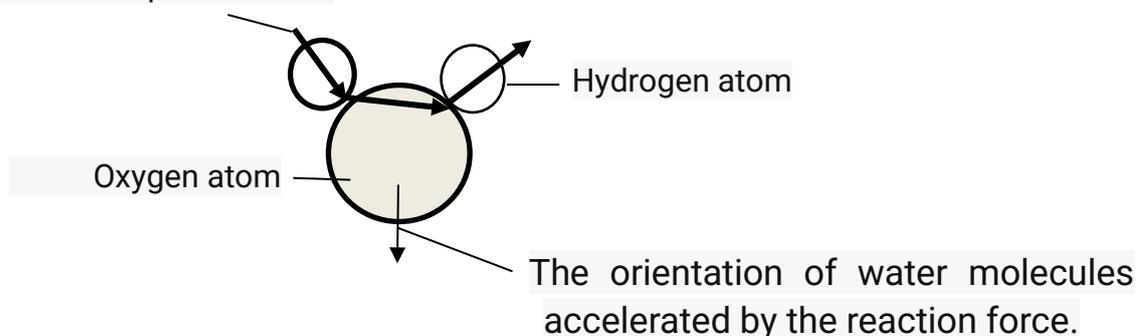
Therefore, in a space without a neutral electric field, large amounts of positive and negative electric fields continue to exist. In electromagnetism, it is said that negative electric fields move towards charges. However, both positive and negative electric fields move away from charges. As a result, negative electric fields do not arise in a direction that moves towards charges.

4. Interaction between global warming gases and photons.

Molecules with asymmetrical structures, such as water, have a global warming effect. Why is this so? Photons colliding with water molecules cause a domino effect with the photons inside the atoms. As a result, the kinetic energy that the photons carried is transferred through the water molecules.

However, in parts where atoms form asymmetrical bonds, the direction of the chain reaction motion can be changed. Consequently, water molecules gain the kinetic energy carried by photons as a reaction. Therefore, when photons collide with greenhouse gases, they raise the temperature of the gases. As a result, the kinetic energy carried by the photons decreases. This phenomenon occurs because photons have mass (Figure 2).

The path that a photon takes



(Figure 2) The pathway of photon collision phenomena within a water molecule.

By the way, let us now discuss the electrostatic field. When an electric charge moves, the electric field also moves. At that time, changes in the electric field propagate spherically at the speed of light. From this, it follows that the electrostatic field arises from something that propagates at the speed of light. In other words, the electrostatic field is not stationary. It should be interpreted as being generated by something that creates an electric field and moves at the speed of light.

The Doppler effect of the electric field occurs because a charge chases something moving at the speed of light. Thus, electromagnetic waves are phenomena arising in the electric field due to the Doppler effect. Furthermore, a moving charge generates both the Doppler effect and a magnetic field. The magnetic field that arises can be detected from all inertial frames. That is, even when moving with the charge, the magnetic field does not disappear. This is because the charge has a velocity relative to absolute space, which results in the generation of a magnetic field.

5. The electric field creates spacetime.

Waves that use water or air as a medium travel at a certain speed relative to the Earth. Suppose the wave source moves through this medium. Then, an observer moving at the same speed as the wave source will not experience the Doppler effect of the waves. At this time, an observer at rest relative to the medium will experience the Doppler effect in the waves.

Here, suppose an observer moving at the same speed as the wave source photographs the wavelength on the water surface. In that case, the waves emitted from the source are compressed in the direction of motion and stretched in the opposite direction. In other words, an observer with the same speed does not perceive the Doppler effect. However, changes in wavelength depending on the direction can be observed.

Next, imagine placing a one metre ruler inside a jet. At both ends of this ruler, there are spheres attached. The distance between these spheres, when measured by someone inside the jet, is one metre. Even when measured by someone on the ground, the distance remains one metre. However, from the perspective of a person on the ground, a Doppler effect occurs as the ruler

passes by. As a result, the two spheres pass the ground observer in a short amount of time.

However, from the perspective of someone inside a jet, the two spheres appear stationary. In this way, a wave source moving along with oneself does not produce a Doppler effect. Nevertheless, this does not prove that space is relative. In other words, a Doppler effect occurs within an absolute relationship. That is, one does not feel a Doppler effect simply because one is moving with the wave.

For example, suppose there is a light source moving at subluminal speed. In front of the light source, the spacing between photons shortens. In the opposite direction, the spacing between photons widens. However, because the light source is moving, an observer cannot detect this Doppler effect. In this case, a magnetic field arises in the space where the observer is located. In other words, the Doppler effect is only apparent. Therefore, the change in wavelength is a real and absolute phenomenon from any inertial frame of reference.

By the way, constancy of the speed of light refers to the round-trip of light being equal. However, this causes the speed of light in different directions to change continuously. In other words, in this state, it cannot be said that the speed of light is truly constant. True constancy of the speed of light requires that the speed of light is equal in all directions. Here, let us assume that "the amount of electric field passing is proportional to the passage of time." Then, the speed of light in all directions always remains constant. At this time, if it is assumed that time stops, the speed at which the electric field progresses also becomes 0.

Let us assume that a charge has velocity. Then, due to differences in direction relative to the charge, the speed at which the electric field propagates changes continuously. Consequently, the rate at which time passes varies depending on the direction in which the electric field propagates. We shall refer to such time, where the speed varies with direction, as 'directional time'.

In contrast, the rate at which the state of matter changes is referred to as 'indirect time'. This indirect time is proportional to the speed at which a clock runs and is strongly affected by small directional time. It also has a close relationship with space and time, existing as a three-dimensional entity with direction.

Furthermore, something continuously emanates from the electric charge at the speed of light, creating an electric field. Let us call this something a

'space element'. The existence of this space element gives rise to the Doppler effect of the electric field. Now, suppose that space elements continuously emanate from the charge at the speed of light. In that case, all the space elements should be emitted from the charge instantly. However, a constant quantity of space elements continues to emanate from the charge indefinitely. Why is this so?

Here, let us assume that 'electric field strength and spatial density are proportional.' Then, at points near a particle where the electric field strength is high, the propagation speed of the electric field slows down. This is because the magnitude of spatial density is inversely proportional to the speed at which the electric field progresses. In other words, electric field strength, spatial density, and spatial particle density gradient are in a proportional relationship. Therefore, electric field strength and electric field speed are in an inverse relationship.

Also, when the density gradient of space elements is large, the spatial density increases. Consequently, the apparent speed of the electric field decreases. The speed of the electric field in this case is referred to as the speed of the space elements. Furthermore, the magnitude of the spatial element density gradient is inversely proportional to the magnitude of the space element speed. Similarly, when an object is in free fall, it experiences a state of weightlessness. In the same way, space elements do not exert a Coulomb force when moving through space. However, when they encounter an object, space elements generate a Coulomb force.

6. Absolute space and dark matter.

According to the Big Bang theory, the Earth is moving away from the centre of the universe at high speed. In that case, a Doppler effect should occur on charges on Earth. However, this idea is mistaken, because according to the Big Bang theory, space itself expands and the universe grows.

In this case, the galaxy becomes stationary relative to the cosmos. Consequently, light coming from distant galaxies does not undergo redshift. Therefore, there is no need for space to expand, and the Big Bang theory becomes unnecessary. As a result, photons tire and lose energy in proportion to the distance they travel. Such a hypothesis will come into being. What, then, was the purpose of the Big Bang theory?

By the way, space exists in the universe. This space is created by electric fields. Therefore, the cosmic space should be filled with charges that have

electric fields. Such charges are called 'dark matter'. Spatial elements continue to emanate from this dark matter. As a result, space arises in the universe. Furthermore, since dark matter creates space, space that is stationary relative to dark matter becomes absolute space.

Also, as spatial density increases, the speed at which an electric field propagates decreases. Consequently, a strong electric field that has just emerged from a charge propagates slowly. Now, suppose the space carried by a photon overlaps with the space that exists in the universe. This causes the spatial density of the photon to increase. As a result, the photon's speed decreases, causing it to lose kinetic energy. This phenomenon causes redshift in the photon.

Moreover, space has orientation. Here, if we integrate the inverse square of the distance from a finite distance to infinity, a finite value is obtained. Therefore, each individual charge generates a finite amount of space. Hence, even if space elements continue to emanate from a charge, the total amount of space in the universe does not increase.

Electromagnetic waves also undergo redshift. This is because the spatial elements that the electromagnetic waves possess continuously overlap with those emitted by outer space. As a result, the wavelength of electromagnetic waves lengthens in proportion to the distance they travel. However, when electromagnetic waves encounter charges, the charges accelerate in directions that cancel out the electric field. Consequently, the electromagnetic waves gradually weaken and eventually vanish. Additionally, electromagnetic waves spread over a two-dimensional spherical surface, which causes them to diminish more rapidly than the redshift experienced by photons.

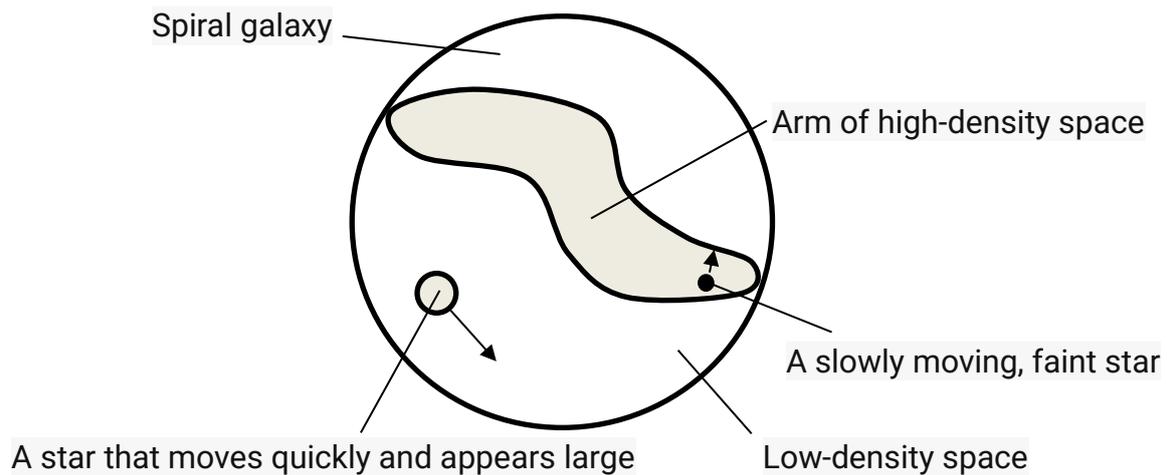
7. low-density dark matter and high-density dark matter.

At the centre of a galaxy, stars are densely packed. Also, in the arms of a spiral galaxy, stars are densely packed. So why does strong gravity not cause stars to bind together? And why do distant galaxies merge while nearby stars do not?

Also, the stars within a spiral galaxy move at the same speed. Over time, the shape of the arms should break apart. Yet, why do the arms of any spiral galaxy remain intact? Here, we consider the reasons why these phenomena occur.

First, let us assume that there are two types of dark matter in the universe.

One is "low-density dark matter," formed by the combination of electrons and positrons. The other is "high-density dark matter," formed by the combination of protons and antiprotons. In other words, electrons, positrons, protons and antiprotons. These four particles are extremely stable. Therefore, they bind together in a crystalline high-density form, creating a stable space.



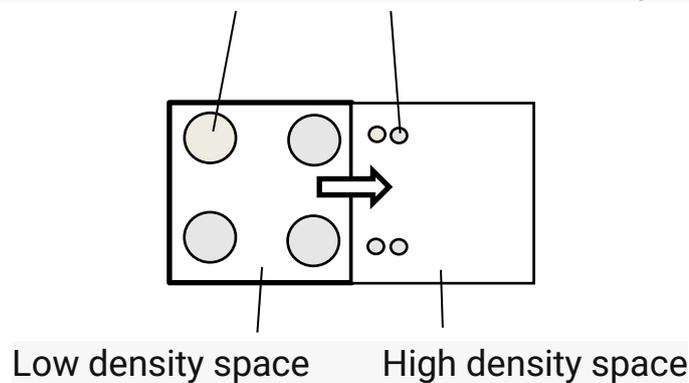
(Figure 3) Stars within high-density dark matter appear to move slowly.

Furthermore, the spatial density around protons and antiprotons is greater than that around electrons and positrons. This is because protons and antiprotons have greater mass. In other words, high-density space forms around particles with greater mass. As a result, the high-density dark matter formed by the binding of protons and antiprotons generates high-density space.

Therefore, when the Earth enters a high-density dark matter region, the spacing between surrounding stars increases. In other words, the spacing of stars in the direction of travel does not change. However, the spacing of stars in the transverse direction changes dramatically by several tens of times. Observed from a low-density region, the speed at which the stars move appears slower. As a result, the arms of spiral galaxies can persist without breaking. Furthermore, because the effective spacing between stars within a high-density region is large, they do not strongly attract each other due to

gravity (Figures 3 and 4).

Four celestial bodies of the same size moving into a high-density space.



(Figure 4) Apparent contraction, with interstellar distances narrowing only in the direction of travel.

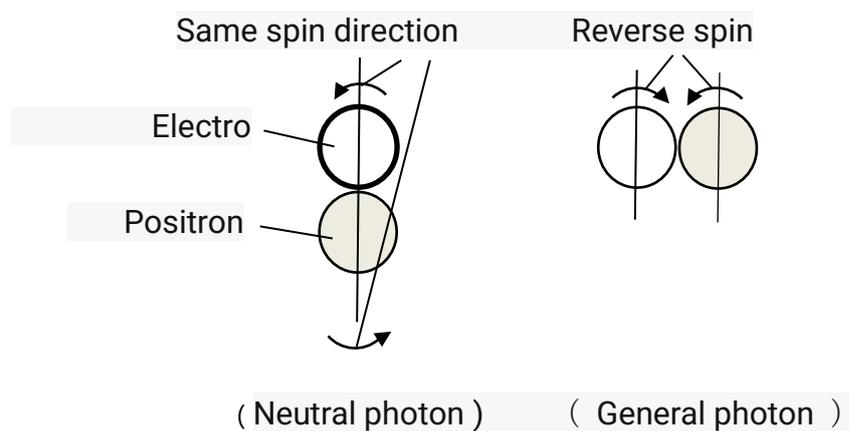
Dark matter and the Earth are both made of matter. Therefore, they attract and bind to each other through gravity. As a result, the Earth's surface binds with low-density dark matter, approaching a more complete absolute space. In this way, celestial bodies and low-density space have a propensity to bind. Thus, suppose a celestial body exists within the same absolute space. Then, there is a universal gravitational force between celestial bodies as well as a universal gravitational force between low-density space and the celestial bodies. Comparing these two, there exists a distance where the force between celestial bodies becomes weaker. Consequently, the distance between stars is maintained over several light-years, remaining stable without attracting each other.

Additionally, the sun and moon exert gravitational forces on the Earth's surface. As a result, there is no completely absolute space on Earth. Ocean currents and air currents move across the surface, which gives rise to the Coriolis force. Furthermore, there exists spatial matter produced by the Earth on the surface, increasing upward spatial density. However, the spatial density of low-density dark matter is far greater than the spatial density created by the Earth, so the velocity of light in an upward direction slows

down only slightly.

8. neutral photons and general photons.

Photons are not electromagnetic waves. So, what then are photons? Photons are produced when an electron and a positron combine. In other words, even when an electron and a positron combine, they do not annihilate each other but instead create a photon. Therefore, electrons and positrons are contained within the photon. As a result, photons have an electromagnetic field and kinetic energy. Moreover, around these particle-like photons, there exists an electromagnetic wave with wave-like properties. This relationship is common not only to photons but to all particles.



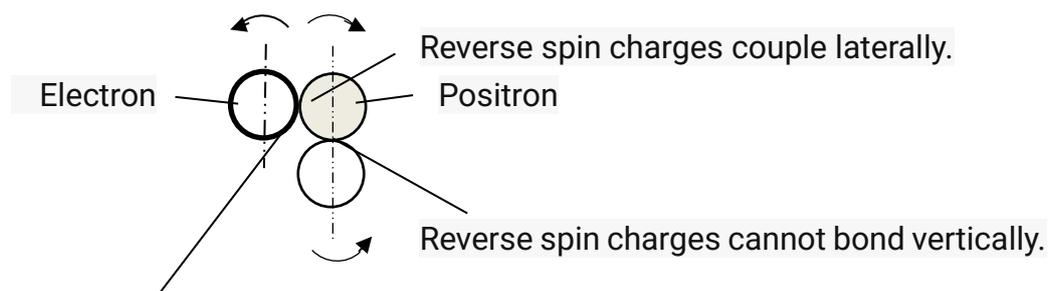
(Figure 5) Neutral photons and ordinary photons

By the way, there are two ways in which electrons and positrons can bind. One is when the electron and positron have spins in the same direction. They bind with their spin axes aligned vertically. A photon in such a bound state is called a "neutral photon." The other is when the electron and positron have spins in opposite directions. They bind with their spin axes aligned parallel. A photon in such a bound state is called a "regular photon" (Figure 5).

At the contact surface of neutral photons, magnetic fields of the N pole and S pole arise. As a result, they attract each other through magnetic force,

and neutral photons strongly bind. Therefore, neutral photons mainly possess gravitational fields and become photons with weak interactions. In contrast, ordinary photons bind in parallel with the orientation of their spin axes. In other words, if they try to bind vertically, the same magnetic poles combine and repel each other. Hence, they bind horizontally so that the contact surfaces are oriented in the same direction (Figure 6).

Therefore, general photons that have intervals and bind together generate stronger electromagnetic fields and greater mass than neutral photons. The photons we recognise are these general photons. These general photons have the property that electrons within a photon can bind with positrons in another photon. Consequently, they bind with each other to form large clusters of photons. For example, if there is an orbital electron, positrons within photons bind around it, and then electrons within photons are positioned on the outside.



For a charge, other charges move in the same direction, and nothing exists outside the contact space.

(Figure 6) Photons couple via the magnetic field rather than the electric field.

Then, electrons bind with positrons within other photons. Through this repetition, a large number of general photons bind around the orbital electrons. This cluster of photons will be referred to as a 'photon sphere'. The photon sphere fills in around the nucleus from the inside. However, photon spheres repel each other because they carry a negative charge. In this way, atoms have a number of photon spheres equal to the number of protons in the nucleus. Additionally, photon spheres are almost stationary and do not

move at high speeds.

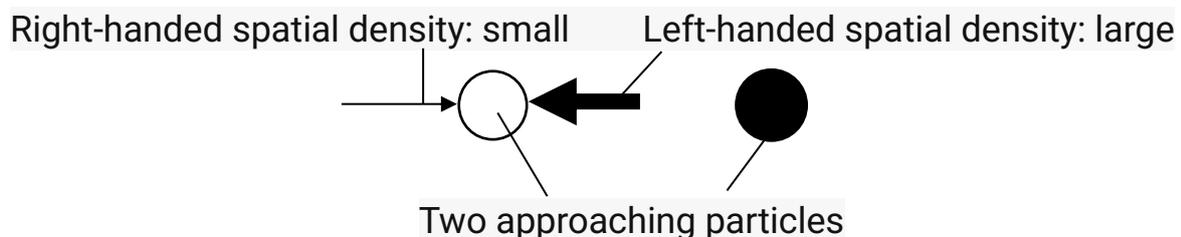
9. A collection of elementary particles and the reduction of mass.

Suppose multiple particles, such as electrons and atomic nuclei, gather at one place. Then, the electric fields of the particles strongly overlap. As a result, the spatial density increases. Consequently, the speed at which spatial elements exit decreases. As a result, the total amount of spatial elements leaving the collected particles decreases. Consequently, the mass of the assembled particles decreases.

In other words, there is a proportional relationship between the total amount of spatial elements emitted from matter and its mass. For example, the amount of spatial elements emitted from one apple is half that emitted from two apples. Furthermore, when an electron and a proton come close together, they cancel each other's electric fields. At this time, the space occupied by the positive and negative fields overlaps and doubles. As a result, the total amount of spatial elements emitted decreases.

10. the emergence of universal gravitation.

From elementary particles, the spatial density in the direction moving away is greater than that in the direction approaching. Suppose a particle oscillates within such a space. Then, in the direction moving away from the elementary particle, the particle appears to travel a shorter distance because it moves towards the direction with higher spatial density. However, in the direction approaching the elementary particle, the spatial density is low. Therefore, the particle appears to move a greater distance (Figure 7).



(Figure 7) Particles that are close tend to stay close and come together easily.

As a result, when particles oscillate in a gravitational field, they approach the vicinity of elementary particles. Then, the ratio of spatial density in different directions increases. Consequently, larger particles come closer to the elementary particles. The force that arises in this way is called "universal gravitation". Additionally, in the high-temperature regions inside stars, particles experience strong oscillations. Therefore, the gravitational constant in high-temperature spaces is larger than in low-temperature spaces.

11. Generation of magnetic force.

Magnetism is generated by the spin of electric charges. It can also arise from changes in the electric field strength. Now, consider the case where the N and S poles are coupled. In this case, the plane of rotation of the charges comes into contact in the same orientation. Consequently, the rotating spaces overlap with each other, allowing them to share the space in which they can coexist.

However, suppose two identical fields combine. In that case, the spatial elements of the contact surface rotate in the opposite direction. This creates a 'void' where space does not exist between them. As it is impossible to exist in the void, the orientation shifts towards a heterogeneous field where space exists. The force that arises at this moment is magnetic force. Therefore, magnetic force arises from the phenomenon where the electric field moves to the position where spatial elements exist.

Also, dark matter fills the vacuum of space. Within this, photons exist. Usually, the direction in which photons spin is irregular. Suppose the rotating electric field of a charge overlaps with the spin axis of these photons. Then, a new spin axis is added to the photons. As a result, the surrounding photons' spin axes also align. This connection of spin axes extends from the north pole to the south pole. This is what is called a "magnetic field line."

Furthermore, the passage of electric field waves also causes changes in the orientation of low-density dark matter. As a result, the passage of electric field waves generates a magnetic field. Therefore, no magnetic field arises around a static electric field. However, when a static electric field moves, a magnetic field is generated. Consequently, very weak magnetic fields are

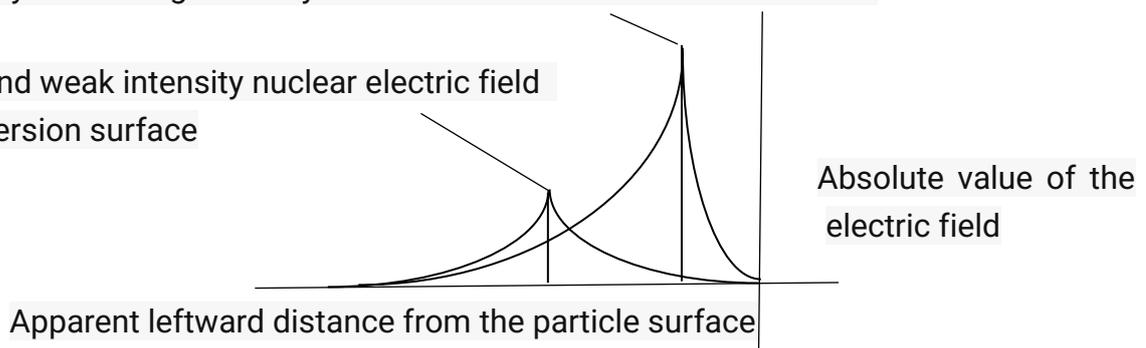
produced in the charges inside a jet plane moving at constant velocity. Additionally, the magnetic field generated by the passage of electric field waves disappears instantaneously due to diffusion.

12. strong force and electric field transition surface.

Protons inside the atomic nucleus carry a positive charge. Yet, why do they bind so strongly? Also, why do quarks inside a proton attract each other more strongly the further apart they are? This phenomenon is caused by the mechanism through which an electric field is generated. In other words, the electric field is diluted by the vacuum of space. It is only due to this that a gradient forms in the electric field. As a result, charges can exert the effects described by Coulomb's law.

Nearby and strong intensity electron electric field inversion surface

Far and weak intensity nuclear electric field conversion surface



(Table 1) shows that large-mass charges produce distant and weak electric field conversion surfaces.

In other words, the spatial density gradient just emitted from a fundamental particle is very large, while the spatial density gradient of the vacuum is relatively small. Therefore, the spatial elements of the vacuum can only slightly dilute the spatial elements produced by the charge. As a result, the electric field near the charge is very weak. However, as the spatial elements move away from the charge, the spatial elements emitted by the charge spread out and gradually strengthen. Consequently, the electric field

intensity gradually increases.

Eventually, the spatial element emitted by the charge becomes diluted and sparse. Then, the electric field intensity rapidly diminishes. In this state, Coulomb's law becomes dominant (Table 1). At this time, there exists a surface where the charge intensity is strongest. This surface will be referred to as the 'electric field conversion surface'. Moreover, orbital electrons are distributed on the electric field conversion surface possessed by the atomic nucleus. Additionally, the spatial element of a small-mass charge, like an electron, is strongly diluted by the spatial element of the vacuum. Therefore, electrons have a small diameter and possess an electric field conversion surface of strong intensity.

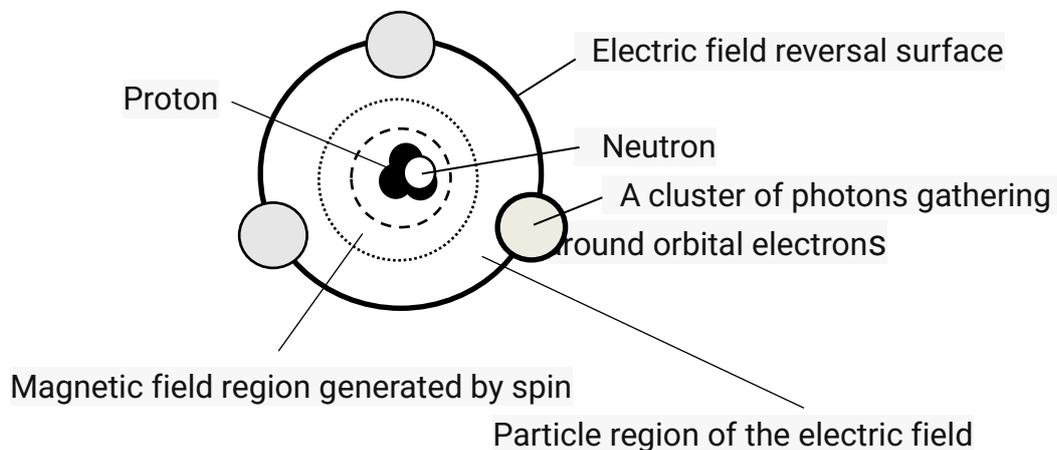
In contrast, protons have a large mass. Therefore, protons possess an electric field conversion surface with a large diameter and weak intensity. As a result, the closer protons get, the more they repel each other with a weak Coulomb force. Now, suppose an electron is positioned between two protons. The electron is attracted to the two protons by its strong negative electric field. Consequently, the two protons are bound more strongly by the single electron.

In this way, within the atomic nucleus, protons and neutrons stabilise in roughly equal numbers. The magnitude of the quark's electric field conversion surface is unknown because the mass of quarks is unknown. Furthermore, the mass of quarks is smaller than that of protons. The deficit is added as mass in the form of energy. This is how it is explained. However, energy alone cannot possess mass. That is, if energy is added to matter, the matter itself increases in mass.

Also, there is no point in determining the exact mass of quarks because when particles combine, their mass decreases. Furthermore, the stronger the binding, the greater the proportional decrease in mass. Now, suppose we decompose a particle with an extremely small volume, like a proton, down to elementary particles. As a result, it is possible that the total mass of elementary particles could be equivalent to that of a celestial body due to the division.

Furthermore, the gravitational field inside a proton is extremely strong. As a result, time progresses more slowly from an external perspective. Therefore, when attempting to decay a proton through collision, the decay rate is close to zero. Consequently, even if protons are collided, they cannot be decayed in a short period. Thus, the decay phenomenon refers to the separation of entities such as photon spheres bound to the proton's surface.

In particle physics, the types of elementary particles are categorised based on the differences in speed and mass of these dispersing photon spheres (Figure 8).



(Figure 8) shows the spatial structure outside the proton.

13. the longitudinal structure of the universe and the parallel structure of the universe.

Space elements continue to be emitted from the electron. This suggests that within the electron there must exist particles that emit these space elements. Consequently, the interior of the electron is filled with dark matter. Furthermore, from an external perspective, this universe might appear as electrons and positrons. In other words, the universe we inhabit is merely one among countless others.

Also, the number of elementary particles in the universe. This is considered to be finite, greater than two but less than infinity. Since this number is a natural number, it is likely to be extremely large. Such particles, packed with countless elementary particles, are called electrons or positrons. These electrons and positrons cannot be broken down further. Therefore, only electrons and positrons are referred to as 'elementary particles'.

Furthermore, all particles are composed of multiple elementary particles bound together. The universe within such an electron is called the 'electron

universe'. Within the electron universe, there exists a vast universe. Additionally, outside this universe, there also exists a vast universe. The relationship between the inside and outside of the universe in this way is called the 'vertical structure of the universe'. Also, the relationship between an electron and adjacent electrons or positrons is called the 'parallel structure of the universe'.

Also, the volume of electrons is not the same. Here, let us assume that space elements emerge from an electron with a large volume into high-density space. In this case, the external space elements dilute the emerging space elements. If the emerging space elements are of high density relative to the external space elements, the high-density space elements can only exit slowly. However, if the space elements emerging from the electron are of low density, many space elements can emerge.

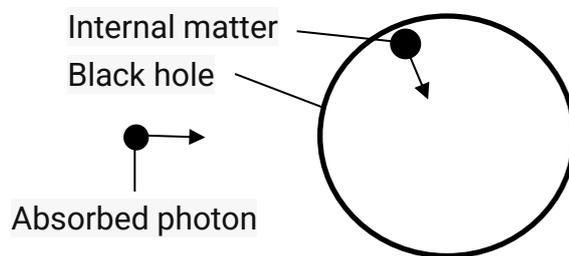
Therefore, from elementary particles of different volumes, the spatial quanta that can emerge are limited by the external spatial density. From this, the mass of all elementary particles is equalised. Consequently, an electron with the volume of the Earth would have the same mass as any other electron. However, the probability of such a volumetric electron existing nearby is infinitesimally small, as it involves comparing a finite diameter range with an almost infinite electron diameter range.

Also, suppose positive spatial elements and negative spatial elements coexist in the same universe and directly overlap. In that case, the spatial elements would annihilate each other. However, the positive universe and the negative universe belong to separate universes. Therefore, even if different types of electric fields overlap, they cannot be annihilated. These heterogeneous universes share time and space. The heterogeneous spatial elements attempt to disperse themselves and spread into three-dimensional space. The three-dimensional universe exists for the purpose of diluting this electric field.

Furthermore, why does the speed of light take on a finite value? In reality, elementary particles have various volumes. As a result, photons also have different volumes. Then, smaller photons can slip into the gaps of larger photons, causing the density of space to approach infinity. Through this, elements of space pass at infinite speed. Therefore, the speed of light becomes an indeterminate value. Moreover, the amount of space passing and the passage of directed time are proportional. Hence, we always observe the speed of light as constant.

14. black holes are not heavy.

Suppose a black hole pulls in photons and gravitons with its own gravity. Then, the electromagnetic field and the gravitational field would disappear from the black hole. As a result, the black hole would vanish from the universe. However, the electromagnetic field and the gravitational field continue to exist for the black hole. This is because photons are matter, not electromagnetic waves. Therefore, photons fall into the black hole.



(Figure 9) Internal matter into which photons are not absorbed, despite absorption.

Electromagnetic waves also travel through space at the speed of light. Now, let us assume that an electromagnetic wave falls into a black hole. In that case, the wave would travel in the opposite direction through space. This would mean that the black hole is absorbing space. However, this would cause the cosmos to be swallowed up by the black hole and disappear. Therefore, electromagnetic waves are not absorbed by black holes. Moreover, if external light were absorbed, the internal matter would also be expected to be drawn into the singularity (Figure 9).

Thus, a black hole is a large neutron star. Therefore, a black hole does not have an event horizon or a singularity. Additionally, a black hole is in a state where neutrons are closely packed at high density. As a result, a strong mass reduction effect occurs, and the gravitational field of the black hole becomes significantly smaller than when it was a star.

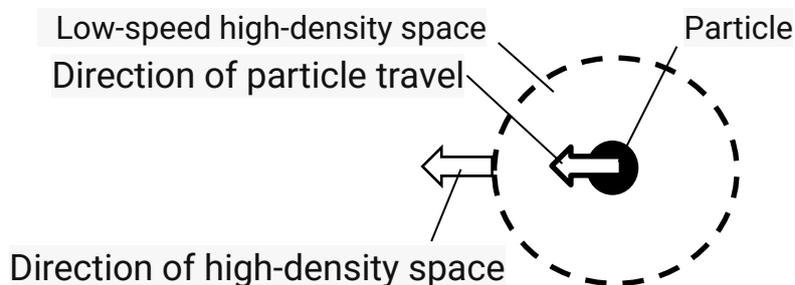
Additionally, elements fall into the black hole. Inside these elements, a large number of photons are contained. These photons are converted into low-density spatial elements within the black hole. As a result, the newly

formed low-density dark matter is pushed outward. Therefore, the low-density dark matter inside spiral galaxies is pushed outward in a spiral pattern. Consequently, stars move within the galaxy at a constant speed.

Stars and low-density dark matter are also bound to each other. Therefore, even if stars and low-density dark matter move with velocity, no centrifugal force acts on the stars, as they are at rest with respect to absolute space. Additionally, the distances between stars are sufficiently large, so celestial bodies do not fall towards the galactic centre due to gravity.

15. Particle-like phenomenon of spatial components.

Suppose a particle has velocity. Then, the high-density spatial element it emits will be overtaken by the particle itself. Consequently, the particle exceeds the speed of light. For this reason, the spatial element around the particle moves together with the particle. This phenomenon, in which the spatial element moves together with the particle, is called the "particle-like behaviour of spatial elements".



(Figure 10) The high-density space near the particle becomes particulate and moves along with the particle.

Particles such as electrons also possess spin. As a result, the spatial elements moving away from a particle spiral outward from it. Consequently, the space of the particle is folded in a spiral shape. As a result, the spatial elements pass through and emerge over very long distances. However, the spatial elements themselves create space. Therefore, the path of the

spiralling spatial elements is straight with respect to the electron (Figure 10).

A space element with this curvature overlaps tangentially with space elements from other particles. In other words, multiple space elements converge at a single point. Consequently, the spaces merge into one. This phenomenon generates a magnetic field in the space.

Also, electrons moving in circular motion and electromagnetic waves moving in a straight line produce elements of space with curvature in relation to the surrounding charges. Therefore, when there is a change in the electric field, a magnetic field is momentarily generated. However, once the electric field change disappears, the magnetic field disperses into the surrounding space. As a result, after the electromagnetic wave passes, no magnetic field remains. This occurs because the dark matter that constitutes space has randomly oriented spin axes.

Also, suppose there is a gap between parallel advancing spatial elements. Then, nothingness arises in that gap. Following this, the gap disappears, and the parallel advancing spaces merge. Therefore, all space is connected into one. However, spatial elements that do not share a tangent, such as orthogonal spatial elements, become nothing to each other. That is, for a spatial element, the existence of other spatial elements only applies to those that coincide with the 'one point' the spatial element occupies and move in the same direction.

Therefore, in outer space, elementary particles as entities do not exist. Certainly, the spatial elements within swirling elementary particles and the spatial elements moving straight have tangents. However, the volume of elementary particles is extremely small. Consequently, the amount of magnetic field generated is minimal. Therefore, the magnetic field and Coulomb force acting on charges operate on the particleisation phenomenon part of the spatial elements.

16. the thermal motion of orbital electrons and the acceleration of photons.

Inside an atom, countless photons are packed together. Moreover, orbital electrons have countless photons bound to them. In this state, suppose the orbital electron gains acceleration due to thermal motion. Then, a strong electric field fluctuation passes through the photons bound to the electron. On the other hand, the mass of a photon is smaller than the combined mass of an electron and positron. Therefore, photons can easily reach subluminal speeds.

At this time, photons are given various amounts of kinetic energy. Also, photons given large amounts of kinetic energy are called gamma rays. Photons given small amounts of kinetic energy are called radio waves. Similarly, photons given even smaller amounts of kinetic energy are called neutrinos.

In other words, because neutrinos move slowly, a slight amount of proper time elapses. As a result, they progress while changing their own state. This leads to neutrino oscillations. Furthermore, neutrinos hardly interact with matter. Therefore, they do not refract at the water surface and travel through water faster than ordinary photons.

Furthermore, the wavelength of radio waves is created by countless photons. In other words, changing the energy of photons generates AM radio waves. Also, altering the number of photons with the same energy produces FM radio waves. That is, the wavelength of radio waves is not possessed by a single photon. The wavelength is produced by countless photons. And what a photon has is only kinetic energy.

Furthermore, when photons are projected onto atoms, electron-positron decay occurs. This phenomenon only happens if collisions between photons occur by chance. Therefore, photons travelling through a vacuum do not undergo electron-positron decay. Additionally, when photons collide with atoms, phenomena such as the photoelectric effect, electron excitation, reflection and refraction occur. In other words, it is a phenomenon where the energy of the electromagnetic field is converted into kinetic energy. This forms the basis of physical phenomena.

17. weight and inertial mass.

Acceleration of an object requires kinetic energy proportional to the square of its velocity. But why is the kinetic energy needed for acceleration not proportional to the velocity itself? This is because when an object has velocity, the applied kinetic energy is converted into gravitational waves. The spherical waves created by these gravitational waves are two-dimensional. Therefore, accelerating an object requires kinetic energy proportional to the square of its upward velocity. Additionally, gravitational waves are always present in the motion phenomena around us, such as in elevators or tidal movements.

By the way, subluminal particles can be decelerated because their inertial mass is not infinite in the reverse direction. In other words, an object's inertial

mass varies depending on its orientation. Therefore, at subluminal speeds, the inertial mass only becomes infinite in the direction of motion. In other words, the passage amount of spatial elements and inertial mass have an inversely proportional relationship. As a result, the magnitude of inertial mass changes depending on the orientation relative to the object.

Low-density dark matter is also produced through the coupling of photons. Therefore, the specific gravity of low-density dark matter becomes nearly equal to that of photons. As a result, photons experience buoyancy, causing their weight to approach zero. However, individual photons do not experience a reduction in mass. Consequently, individual photons have a slightly greater specific gravity than low-density dark matter. As a result, photons acquire weight and can have their trajectory altered by the gravity of celestial bodies.

By the way, what is weight? Weight refers to the magnitude of the force of gravity. Therefore, the weight of an object in a zero-gravity environment becomes zero. Also, when buoyancy acts on an object, its weight decreases. This is why water does not fall when submerged. In other words, inertial mass and weight are separate entities. Furthermore, consider bringing a precise scale into a high-rise building. In this case, the weight of an object will decrease. This is because the high-rise building exerts gravitational force on the object. Thus, like gravity, weight also has a direction.

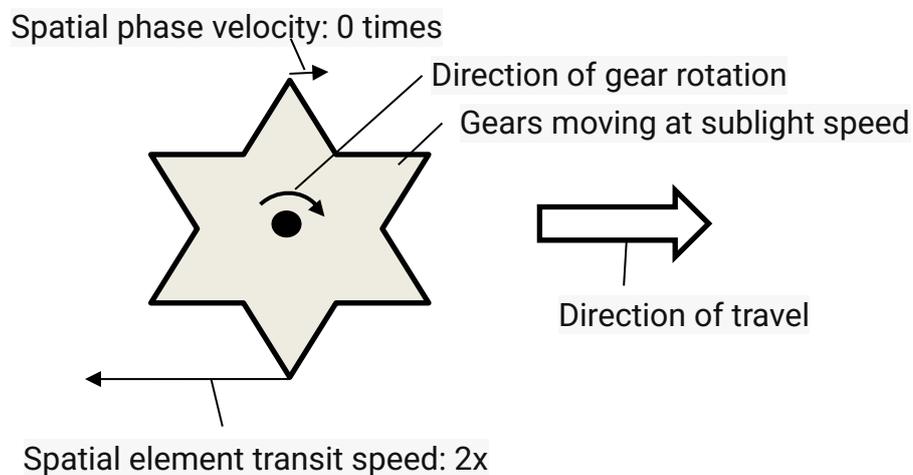
18. Internal stress applied to an object moving at high speed.

Inside a rocket travelling at near-relativistic speeds, time stops. However, objects inside the rocket can move in the opposite direction. Therefore, time inside a near-relativistic rocket only stops for motion in the direction of travel. As a result, objects moving forwards enter a state of rest. Let us now focus on a gear moving at near-light speed (Figure 11).

This gear moves at subluminal speed and is installed parallel to the direction of travel. As a result, the upper end of the gear cannot move forward in the direction of travel, causing it to come to a standstill. However, the lower end of the gear passes through space at twice the velocity, which doubles the directional time. Therefore, the lower end tends to move faster than usual.

However, the gears are integrated. Therefore, each part of the gear cannot move independently. As a result, the gear stops. At this time, stress occurs inside the gear. Also, the same phenomenon occurs in each atom that makes up the gear. For this reason, machinery with weak strength will break. On the other hand, the human body is made up of fluid tissues. Since almost no

stress occurs, the human body does not break.



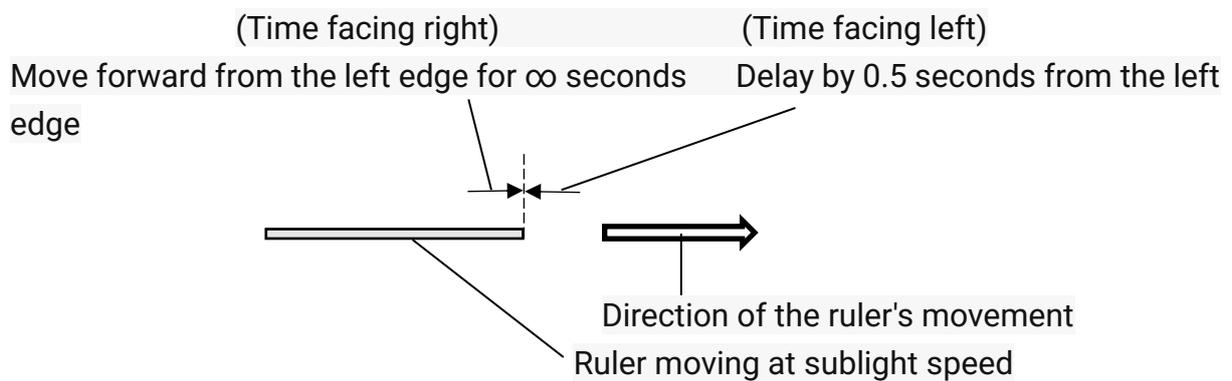
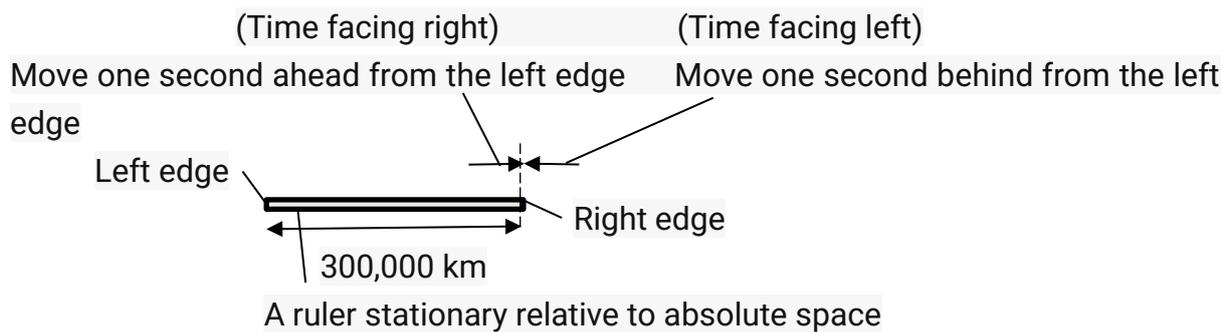
(figure 11) the upper part of the gear remains stationary while the lower part tends to move.

19. Differences in length and volume.

Suppose we position a ruler perpendicular to a gravitational field. In that case, the spatial density upwards becomes greater than the spatial density downwards. However, the length in the upward and downward directions of the ruler remains equal. Therefore, length and spatial quantity do not necessarily correspond. Also, suppose a high-density gravitational wave passes through the ruler; even in this case, the spatial quantity in each direction will change.

Thus, the phenomenon in which the spatial quantity of an object changes depending on its orientation. Due to this property of space, it becomes possible to measure gravitational waves. In other words, suppose a high-density region of space passes upwards. The high-density space will then move at a low speed. Consequently, the speed of photons slows down. As a result, the time taken for a ruler to move upwards increases. Therefore, the total time for a ruler to travel up and down becomes longer. This makes it possible to detect the passage of gravitational waves.

Also, let us consider space as a three-dimensional entity without orientation. Then, the passage through a high-density space causes the measuring stick itself to contract. As a result, the time for photons to travel back and forth in all directions does not change. Therefore, the observation of gravitational waves becomes impossible. In other words, because space has orientation, gravitational waves can be observed.



(Figure 12) Changes in orientation time due to differences in direction, position and speed.

Moreover, the passage of the spatial component and the elapsed time in a particular direction are proportional. Therefore, when the position in space changes, the elapsed time in each direction also changes. Now, consider a stationary ruler 300,000 km in length. The rightward time at the right end then advances one second less than the rightward time at the left end. Conversely,

the leftward time at the right end advances one second more per interval (Figure 12).

Next, suppose a ruler moves at sublight speed with a velocity to the right. In this case, the spatial element at the left end of the ruler can never permanently reach the right end. Therefore, the rightward time at the right end lags the left end by an infinite number of seconds. At the same time, the spatial element at the right end reaches the left end in 0.5 seconds. Consequently, the leftward time at the right end advances by 0.5 seconds compared to the left end.

Thus, when an observer has velocity or moves through space, in this case, the directional time changes continuously in three dimensions. Also, the indirect time of an observer inside a rocket travelling at sub-light speed stops. Furthermore, the photon speed in the opposite direction doubles, while in the direction of travel, the photon speed becomes zero. As a result, the light speed observed by the observer becomes greater than 0 and less than infinity. However, here it is assumed that the indirect time is greater than the directional time in the direction of travel.

20. the weak force and neutron decay.

Neutrons decay with a half-life of about 10 to 15 minutes. This neutron decay phenomenon is, of course, a natural occurrence. This is because electrons inside the atomic nucleus are only stable when sandwiched between protons. In other words, an electron within an isolated neutron tends to move towards the positive electric field of the proton. Therefore, it is necessary to elucidate the mechanism as to why decay does not occur until the half-life is reached.

Protons inside the atomic nucleus repel each other because they carry a positive charge. Similarly, electrons within neutrons experience a force pushing them away from the position of the electric field inversion plane. At this time, there is a unique point where a proton and an electron can bind. This occurs when the spin axis of the proton and the spin axis of the electron align in a straight line. In this case, a magnetic force arises between them. In practice, two protons are linked by placing an electron between them for bonding.

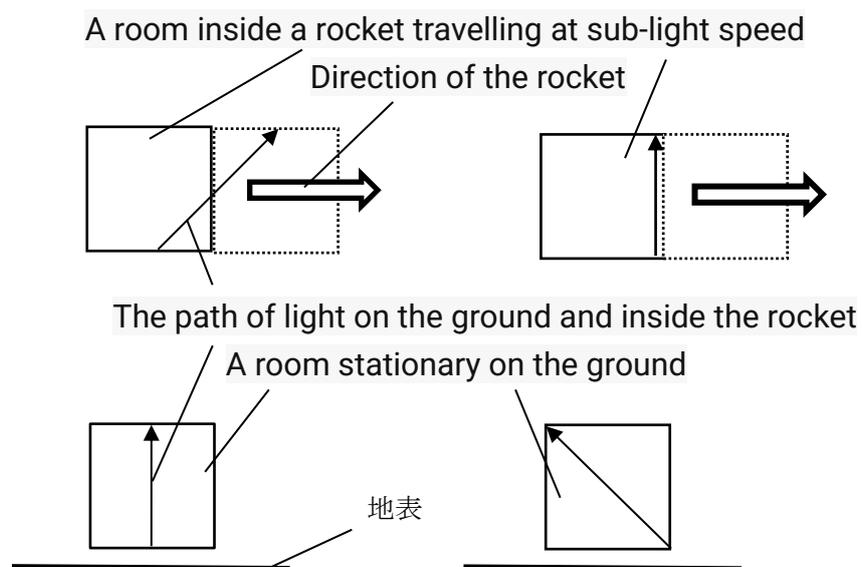
Therefore, some protons inside the atomic nucleus are connected linearly with electrons in between. Protons connected beyond a certain length form a ring and become stable. Moreover, the bonds of short linear protons with

ends allow protons to attach to the ends. Suppose an external force is applied to the protons at the ends of this linear connection. Then, the protons and electrons at the ends detach and form individual neutrons.

However, a lone neutron becomes unstable because the electron is pulled towards the electric field inversion plane of the proton. Eventually, the electron detaches from the proton's magnetic bond and moves away from the proton. At that moment, the electron accelerates and ejects, causing the neutron decay phenomenon. The average time until the spin axis is displaced by an external force becomes the neutron's half-life.

Results and Discussion

1. The paradox of time dilation explained by the theory of relativity.



(Figure 13) Differences in the light path as it moves through the interior of the cubic room.

On the ground, suppose light travels 1m vertically. Let us consider the same phenomenon inside a rocket moving at sub-light speed. Then, a person

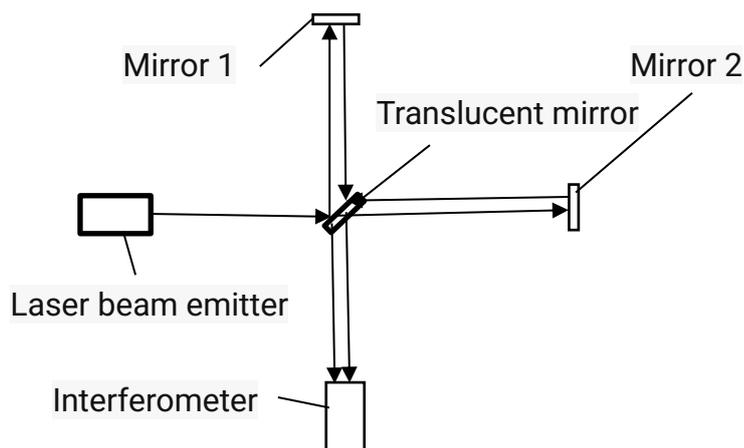
inside the rocket sees light travelling 1 m vertically. From the ground, however, this is a longer path than on the ground ($1/\sin 45^\circ$ times). Therefore, since the speed of light is constant, the passage of time inside the rocket slows down. This is the explanation of time dilation as proposed by the theory of relativity (Figure 13).

Now, let's consider advancing light from the ground at a 45° angle backwards up to a height of 1 metre. Then, the light path inside the rocket becomes shorter. As a result, time inside the rocket will pass faster than on the ground. Now, let's emit light from the ground parallel to the rocket's direction of movement. In this case, the light inside the rocket will never advance.

In this case, time inside the rocket would come to a complete stop. According to this explanation of relativity, indirect time inside the rocket would then occur in several forms. Therefore, this explanation does not describe the rocket's time as slowing down.

From this, it is clear that the explanation of time dilation in the theory of relativity is evidently contradictory. In other words, it is impossible to explain time dilation while ignoring direction, because the universe is made up of entities with direction, including time, space, electric fields and forces.

2. Contradictions of relativity according to the theory of relativity.



(Figure 14) Schematic diagram of the Michelson interferometer.

When there is relative velocity, each perceives changes in the other's length and time. This is the fundamental hypothesis upon which the theory of relativity is built. However, such a hypothesis can easily be proven wrong. For example, consider a subatomic particle travelling at near-light speed that left the sun a year ago, and another subatomic particle that has just departed, travelling in the same direction. Is the interval between them one light year, or zero light years?

Of course, the spacing of elementary particles is one light year. However, according to the theory of relativity, when an object actually has a velocity, the spatial axis contracts. Therefore, this hypothesis clearly contradicts observational results. Moreover, this is because the Michelson interferometer does not produce interference fringes even when the Earth's velocity changes. From this experimental result, the contraction hypothesis was formulated. Consequently, a Michelson interferometer with velocity would not contract either (Figure 14).

In the first place, if an object has speed, around what point do the object and space contract? Does the object teleport to the centre of that contraction? Depending on the differences in speed and direction, an infinite number of universes overlap. Such universes do not exist in reality. Also, even with the same accelerated motion, particles coming from afar experience time much more quickly, whereas particles coming from nearby experience time more slowly.

Why should such differences arise? Suppose there is a rocket that has flown long distances at high speed. Then, it can be confirmed that only the time on the rocket, upon arriving on Earth, has progressed more slowly. In other words, during uniform linear motion, time relatively slows down for each. To resolve this contradiction, it is said that time progresses during acceleration.

By the way, from the perspective of a rocket flying at high speed, Earth's time has progressed slowly. However, suppose the rocket decelerates and arrives on Earth. Then, time on the rocket side would have progressed less. Therefore, if the rocket decelerates, time on the rocket side would need to reverse relative to the Earth. Alternatively, Earth's time would need to progress. However, it is not conceivable that Earth's time would progress without acceleration, nor is it conceivable that time on the rocket side would reverse. Therefore, the time of an accelerating object does not change.

Also, when there is speed, only objects contract. Furthermore, although elementary particles are objects, they do not undergo contraction even at high speeds. Such a variant of the theory of relativity exists. Firstly, if space does not contract, only electrons and atomic nuclei will contract.

If that is the case, space does not contract, so objects do not contract either. Also, let us assume that electrons and atomic nuclei do not contract. Then, nothing would contract at all. Therefore, this variant of the theory of relativity is flawed.

By the way, let us receive images of clocks from Earth aboard a rocket travelling at sublight speed. Then, the relationship between each other's time should be confirmed as an absolute one. Effects such as the Doppler effect or strong gravitational fields at a distance do not affect time at all. It should only be understood that an absolute time delay occurs solely on the rocket side.

Also, satellites as seen from the Earth. Due to the effect of gravity, time on the satellite absolutely runs faster. At the same time, due to the effect of velocity, time on the satellite absolutely runs slower. Based on this absolute relationship, it is claimed that the relative relationship of the theory of relativity has been demonstrated. However, this claim completely ignores the relative nature of time. Being convinced of the theory of relativity through such an explanation is proof of having no intention to truly understand the theory.

3. The paradox of the double-slit experiment, which quantum mechanics claims is correct.

In the double-slit experiment, it is said that particles transform into waves when passing through slits. Also, when a person observes, particles are said not to transform into waves. However, when a person observes, particles are said to transform into waves. Nevertheless, these phenomena are incomprehensible.

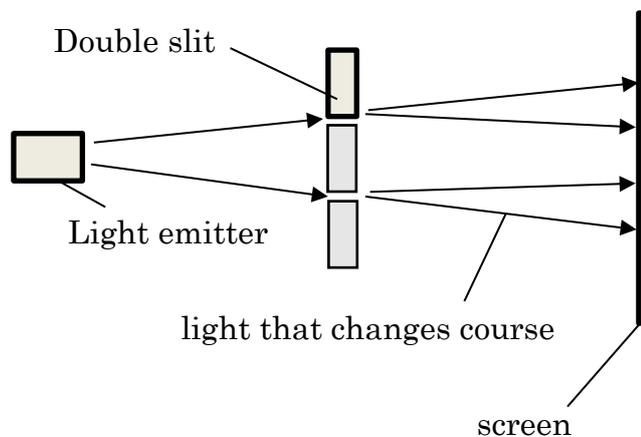
For example, suppose we observe the path of photons with a camera. In that case, the interference pattern disappears. However, when the observation stops, the interference pattern appears. Is this phenomenon real? Here, let's place a light-blocking plate in front of the camera lens. Then, even though observation has stopped, the interference pattern does not appear (Figure 15).

Next, let's try replacing the camera with a motor. The motor does not

observe photons. However, the interference pattern disappears. This is because the electromagnetic waves emitted by the motor disrupt the electric field around the double slit. As a result, the interference pattern vanishes. In other words, the electromagnetic field around the double slit creates the interference pattern. Particles with an electromagnetic field can have their trajectories altered along this interference pattern.

For example, suppose a photon passes through the gap in a polariser. In this case, depending on the arrangement of charges within the photon, it may or may not pass through. That is, a particle with an electromagnetic field interacts with the molecules on the surface of the slit. Therefore, a photon may or may not be able to pass through the polariser.

Through a similar mechanism, interference patterns may or may not appear on the screen in the double-slit experiment. That is to say, slit molecules and photons interact with each other, which is why their paths can be altered. Furthermore, particles such as photons are not aware of whether they are being observed or not.



(Figure 15) Schematic of the double-slit experiment

For example, imagine you are blindfolded in the middle of a town. Would the people around you suddenly start to distribute themselves according to probability? Such a phenomenon does not occur. Similarly, just because the position of a photon is unknown does not mean that the photon is distributed

according to probability. Of course, it is acceptable when dealing with countless particles statistically. However, for a single particle, it should not be distributed according to probability.

Also, what kind of wave do particles transform into? If it is an electromagnetic wave, it penetrates all objects. In that case, the electromagnetic wave cannot be divided by a slit. Therefore, a single wave cannot interfere with itself. Electromagnetic waves are the real waves that occur around particles. However, the particle itself is not a wave. For this reason, a particle cannot transform into a wave when it is not being observed.

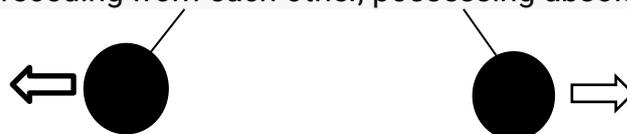
In other words, particles are the points of emission of the spatial element. Therefore, the electric, magnetic and gravitational fields possessed by particles cannot transform into waves. As evidence of this, photons travelling through an optical fibre proceed by repeatedly reflecting within a narrow width. At that time, not all photons in the channel of the optical fibre transform into waves. Therefore, they do not escape outside the optical fibre.

4. Why does the night sky not shine?

Recently, advances in observational technology seem to have revealed contradictions in the Big Bang theory. Suppose that space itself generates space, causing the universe to expand. In that case, all galaxies would remain stationary relative to the universe. For this reason, redshift should not occur in the universe (Figure 16).

Here, I will consider the lifespan of the universe. Previously, it was thought that if the universe were infinitely large, the night sky should continue to shine. Such an idea existed. However, the wavelengths of light coming from afar are stretched. Therefore, the night sky does not shine. In other words, the photons coming from a distance have their wavelengths stretched and thus cannot be observed. However, there is another cause as well.

Galaxies receding from each other, possessing absolute space



(Figure 16) Although all galaxies have a relative velocity, the Doppler effect does not occur.

For example, suppose that stars have continued to exist in the universe from eternity past. Then, an infinite number of photons per unit volume would fill the cosmos. As a result, the universe would have an infinite temperature. However, the temperature of the universe is low. Why is this so?

Now, let us assume that the universe has existed from an infinite past. In that case, the universe would have long since converted all its hydrogen into heavier elements. In other words, the universe contains only a finite amount of hydrogen per unit volume. This hydrogen becomes hot through nuclear reactions. At that time, electromagnetic waves and photons are emitted from the resulting elements.

In a vast universe, photons and electromagnetic waves are less likely to return to elements and be reheated. As a result, the temperature of the universe remains low. In other words, the universe has a finite age. Moreover, a finite number of hydrogen atoms undergo nuclear fusion per unit volume. Consequently, this finite amount of nuclear fusion produces only a finite number of photons. This is why the night sky does not shine.

By the way, in the beginning, there were no elements in the universe. That is, electrons and positrons were uniformly distributed. At some point, energy is added from outside the universe. Then, electrons and positrons begin to combine. At this time, low-density space and photons are generated in the universe.

The energy generated at this time caused some photons to produce protons and antiprotons. These combined to form high-density dark matter and created galaxies. At the same time, the remaining protons and electrons formed hydrogen and created stars. These stars then began nuclear fusion. Furthermore, these stars repeatedly underwent supernova explosions, producing heavy elements, thus forming the universe as it exists today.

The age of the universe is also considered to be 13.8 billion years. However, a single or even a couple of neutron star collisions cannot distribute a wide variety of elements evenly throughout the universe. Furthermore, there are no remnants of massive stars around the Sun. Therefore, we cannot explain where elements heavier than iron came from.

Therefore, the age of the universe would require much longer than 13.8

billion years. In other words, inside the universe, supernova explosions have occurred dozens of times. As a result, it is believed that elements came to be distributed uniformly. That is, at the beginning of the universe, small stars were born and had long lifespans. Eventually, stars began to merge and form larger stars. Over time, collisions of neutron stars repeatedly occurred. Consequently, heavy elements with atomic numbers greater than that of iron began to be created.

As a result, the remnants of supernova explosions are evenly delivered to stars and planets. In this way, the universe has continued to change in the direction of increasing entropy. Eventually, hydrogen molecules in the universe will burn out and stars will disappear. Then, uniform low-temperature matter will accumulate within galaxies. These galaxies will also repeatedly cluster, transforming into a foam-like universe with vast voids. The galaxies will settle into a stable spacing at a distance where they no longer attract each other. At that point, low-density dark matter will unify, come to a complete standstill with one another, and the universe will reach its end.

5. What is the cosmic microwave background radiation?

The cosmic microwave background is considered evidence of the Big Bang. But is that really the case? Firstly, a large amount of microwaves are emitted from stars. In addition, the short wavelength light emitted by stars is absorbed by non-luminous matter such as planets. Afterwards, it is converted into infrared and microwaves and released into outer space.

For this reason, microwaves exist in vast quantities in outer space. Therefore, even if we observe the distribution of these microwaves, we cannot determine the distribution of matter that existed in the early universe. This is because the cosmic microwave background reveals the distribution of stars and non-luminous cold matter. Furthermore, photons travel from spaces trillions of light years away. The wavelength of these photons is stretched immensely. As a result, photons arriving from distances beyond a certain point can no longer be observed as microwaves.

Now, suppose a massive galaxy and a smaller galaxy exist nearby. In that case, only the photons coming from the massive galaxy experience a strong redshift. This occurs because the gravity of the massive galaxy slows down the speed of the photons. In other words, it is not because the massive galaxy is always far away and the smaller galaxy is nearby. Thus, the redshift

experienced by photons is influenced by both distance and the gravitational field.

Furthermore, the gravitational lensing effect occurs because photons are bent by the gravity of galaxies. Electromagnetic waves and spatial units, however, are not bent by gravity because electromagnetic waves have no mass. In other words, spatial units themselves create space. Therefore, space always forms a straight path. Even if the path of a spatial unit appears to bend complexly from the outside, the path of the spatial unit itself is always straight.

Furthermore, when photons undergo redshift, the energy carried by the photons decreases. However, this redshift does not reduce the energy of the universe. For example, suppose a photon is reflected and changes its path. In that case, the spatial elements stored inside are released to the outside. At this time, the released spatial elements are emitted as gravitational waves. Consequently, photons with a strong redshift emit strong gravitational waves in the direction of travel when reflected.

6. what is the breakdown of simultaneity?

Suppose light is emitted from the centre of a rocket in the forward and backward directions. From the Earth's perspective, the light reaches the rear end of the rocket first. How would this phenomenon appear to someone inside the rocket? In this case, from the point of view of proper time, the light reaches both ends simultaneously.

However, the observer follows indirect time, which passes more slowly. At this point, indirect time is the average of directional times in all orientations. Therefore, the rocket is strongly affected by the slower directional times. Nevertheless, compared to the slow directional time in the direction of travel, the observer's indirect time progresses more quickly. As a result, the speed of light observed by the observer inside the rocket is perceived differently depending on the direction.

Therefore, even for an observer inside the rocket, the light appears to reach the rear first. However, the time of arrival of the light at this moment is different from what a ground observer would see as simultaneous. In that sense, simultaneity breaks down.

However, this thought experiment on the breakdown of simultaneity cannot be verified because a central observer cannot directly observe the time at which the rear end is reached. In this way, the phenomenon of the

breakdown of simultaneity is not a simple phenomenon like the explanations given by the theory of relativity.

7. Hypotheses and creative equations in physical theories.

Equations are highly valued in physics papers. But can equations truly be trusted? For instance, distant galaxies attract and merge with each other. However, nearby stars do not attract and merge with each other. From this, it can be understood that the equation of universal gravitation is an approximation. Furthermore, in a high-temperature space, the gravitational constant might change.

In other words, the equation is an approximation and cannot be fully trusted. Therefore, arranging many invented equations to build a theory is extremely risky. A single invented equation is a single hypothesis. In other words, there is a premise that if the invented equation is correct, the theory will hold. The method of connecting large numbers of such hypotheses to create a theory cannot lead to a highly accurate theory.

First, one proposes a hypothesis. However, the likelihood of this hypothesis being correct is low, because it often quickly encounters contradictions in theory. When the hypothesis is then revised, it meets the next contradiction. By repeating this process dozens of times, the hypothesis gradually approaches the truth. Therefore, continuing to develop a theory without revising the initial hypothesis is equivalent to creating a fantasy.

For example, suppose that space contracts when it has speed. Then, where would a planar universe, where subluminal particles gather, exist? For instance, if space arises within space, no redshift occurs. In that case, did the Big Bang truly happen? For example, the electromagnetic force arises from the exchange of photons. Then, if photons are reflected by a mirror, would the electromagnetic force change?

The act of pushing through with a hypothesis initially established without revising it until the end is not a method employed in science. Does the hypothesis put forward initially have no contradictions with other physical phenomena? Is this verification sufficiently conducted within current physical theories? I have serious doubts. What is time? What is space? What is light? I believe that physics should be reconstructed from these fundamentals.

Chemistry uses atoms as materials to elucidate mechanisms. Similarly, physics requires clarification of phenomena through mechanisms. First, the

mechanism by which the phenomenon occurs is elucidated. Then, equations are formulated to verify the content of the phenomenon. This is the order in which physics is developed.

Result

Here, the following mechanisms were explained through a theory created from mechanisms.

- The Doppler effect of the electric field arises from the spatial elements that produce the field, continuously emitted from a charge at the speed of light.
- The constancy of the speed of light arises because the amount of space elements passing and the elapsed directional time are proportional.
- Electric field strength is proportional to spatial density, and for this reason, space elements are not emitted all at once from a charge.
- Gravitational attraction arises from differences in spatial density due to direction and particle vibration.
- An electric field is produced by the overlap of space elements possessed by the vacuum and by charges.
- In the space near a charge, a weak electric field occurs, creating a field conversion surface near the charge.
- There are two types of spatial density dark matter in outer space.
- The spin axes of dark matter connect to form magnetic field lines.
- Charges within an atomic nucleus are bound together by magnetic forces.
- Photons are bound states of electrons and positrons.
- There are two types of photons: ordinary photons and neutral photons.
- Space-time and electric fields occur in a preliminary state where Coulomb forces act.
- Black holes are massive neutron stars, and neutron stars do not absorb the "field".
- The arm regions of spiral galaxies contain high-density space, causing stars within the arms to move slowly.
- Inside black holes, low-density dark matter is created and expelled.
- The universe contains only a finite amount of hydrogen per unit volume, preventing the night sky from shining.
- The redshift of photons occurs because space overlaps with photons, causing their speed to decrease.
- The universe does not expand because the space being generated has a

specific direction.

These physical phenomena can be explained through mechanisms rather than creative equations. Therefore, it is concluded that the creation of theories through equations is extremely limited.

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