FOUND FINE PERSPECTIVE FOR THEORY OF EVERYTHING

Ichiro Nakayama
Kogecho Yazu-gun Tottori-ken, Japan
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A possible basic perspective common to four fundamental forces, strong interaction, weak interaction, electromagnetic interaction, gravitational interaction, and plus dark energy was found. That is different from gauge theory. This text shows that a theory for everything is realized by new perspective named energy body. The concept of energy body theory is that the whole universe including fundamental particles is made of the only one raw material. In other words, space and elementary particles are both energy body. And then energy body vibrates by the medium of energy cell bodies. And all forces work with the difference of energy level between energy body systems. Energy body is divided into two systems that are static energy body of space and kinetic energy bodies of elementary particles. As a result, the insight showed that gravity and dark energy are simultaneously generated by static energy body's (space) collapse and change into fundamental particles, in the process of fundamental particles' concentration. At the time, the two kinds of different energy level are caused in the space. One is in the direction of a star's center. That is gravity which is generated by compression of energy body (space). The other is in the direction of the verge of the universe. That is dark energy which is generated by the diffusion of energy body (space). Also, it was found out that there is a large scale of convection of space and fundamental particles. Therefore the universe inflation is not caused by big ban. The other three forces, strong interaction, weak interaction, electromagnetic interaction are explained by the shape of kinetic energy bodies (fundamental particles). Kinetic energy bodies have a character of waves that rotates on their own axes and a spherical shape in the central part. The closer the wave is to the axis, the higher the energy state, the shorter the wavelength, conversely, the father it moves away, the energy level decreases. Because of that, individual kinetic energy body behaves independently each other. Also, the shape beautifully explains interference fringes of electron, electron transition, and occurrence of magnetic field. Interaction of kinetic energy bodies is decided by the direction of the reciprocal waves. When they are the same at the place where two systems meet, it works as attractive force, when they are the opposite, repulsive force. Because, there is a rise of energy level or a fall. Outside of an atomic nucleus, weak wave of kinetic energy body works as electromagnetic force. When fundamental particles move, the tilt of it plays important roles. Inside of an atomic nucleus, strong wave of kinetic energy body works as nucleus force, At the time, small kinetic energy bodies mediate. More, there are some cases of synthesis or separation of kinetic energy bodies, because they are the waves of same material. Energy is the vibration of energy body. By this concept, the simplest principle is gotten that all forces work by the energy level difference of each energy body system at the place where each system meets.

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I. INTRODUCTION

A grand unified theory that unifies the three of four fundamental forces, strong interaction, weak interaction and electromagnetic interaction, without gravitational interaction, is evolving over time with gauge theory which predicts that all of three forces arise from exchange of gauge bosons between fermions. Also, superstring theory is attempted. But they are unsuccessful, because the comprehension to gravity has not advanced. Futamase1 and Wikipedia2 state these in the statement. But this time, a highly reliable concept that will be the base of all four forces was found through the research of gravity. The concept is different from gouge particles. That is to say, space and elementary particles are made of the same raw material called energy body. In other wards, space and elementary particles are both energy body. To understand this concept, present recognition of space and elementary particles has to be changed a little. Further, it is appropriate to assume that space and elementary particles are energy body from the next two already known cases.

1. An elementary particle is considered an ultimate constituent of substance. But there must be common ingredient of many elementary particles.

2. Space produces elementary particles. And elementary particles are annihilated into space. Space is a vacuum space. And vacuum space in quantum theory is never in a state of " nothing. " It is said that pair production and annihilation are always occurring, as the virtual particles of electrons and positrons. Also, in an experiment conducted at Alabama University about the attraction between metal balls and metal sheets in a vacuum, it was confirmed that there is an unknown vacuum energy. In addition, when objects of two different masses are forced into uniform velocity motion at the same speed, a force of a magnitude that conforms to the mass is necessary. For this reason, the

Higgs particle, which creates mass, was postulated. Mizutani(eds)3 and NHK Enterprises.Inc.214 state these in the statement. This comes from the point of view that there is some kind of source of energy in all space, which is the current assumption of physics associations. This paper takes a different approach, proposing that space is one system of energy body named static energy body and elementary particles are the other individually independent systems of energy body named kinetic energy bodies.

It is that the origin of all forces is the difference in the energy level between each system of energy body at the place where each system meet. This text shows that four fundamental forces are clearly unified with concreted images, on the basic common concept of energy body and that the theory is acceptable to anyone by intuition. More, this text shows that what is dark energy, why electrons have dual character, and why mass and energy are equivalent, are finely explained on the same concept. As a result, it is assumed that the cause of universe inflation is not big ban but the convection of static energy body. And the cosmic microwave background which gives evidence to the big bang theory, can give evidence to the space convection by energy body theory, too. Also, this text shows the relationship between electricity and magnetism by illustrated images with no conflict, even if they are already known. By that, the reason not yet given to is made clear why the phenomenon of electromagnetism occurs. Further, it is pointed out in this text that electromagnetic waves are the imprints left in static energy body by the reciprocal motion that occurs when the orientation of the electron (kinetic energy body) rotates, though they are a kind of bosons in quantum theory.

II. ENERGY BODY

A. Properties of Energy Body

Next, an explanation of the properties of energy body is given. Energy body is the ultimate matter which materializes nature world, and is universe itself. Then, the material of space and elementary particles are both energy body. An elementary particle is thought to be an ultimate constituent of substance in current physics. On the other hand, energy body is thought to be the whole universe. They are both ultimate constituencies, but are different symmetrically. In addition, energy body can be thought of being composed of cell-like particles that we will call energy cell bodies. At a glance, it is similar to the Higgs particle concept. However, the difference is that while Higgs particles are surrounded by space, energy cell bodies are packed without gaps. Also Higgs particles are one kind of elementary particle, on the other hand, energy cell bodies are matter of elementary particles and space. Then, energy cell bodies are far smaller than elementary particles. At the same time, energy body is energy itself. Namely, energy body vibrates by the medium of energy cell bodies. But the details of energy cell bodies are obscure. Energy body is divided into two systems. One is static energy body of space and the other is kinetic energy body of elementary particle. These are explained in the next chapter. The difference of energy level between energy body systems works force.

B. System of Energy Body

1. Static Energy Body

The space, matter, and energy that make up the cosmos all come down to energy body. Among these, I call “static energy body”. The outer space vacuum falls under this category. This energy body is not in a closed wave state. Thus the entire space of the universe is one independent system of static energy body.

2. Kinetic Energy Body

When the energy body waves are in a closed state, I call them “kinetic energy bodies.” Elementary particles fall under the category of kinetic energy bodies. A “closed wave state” means that the waves of the energy body are rotating around their own axis. The closer the wave is to the axis, the higher the energy state, the shorter the wavelength, and the higher the amplitude. As it moves away from the center, the energy level decreases, approaching the standard level. Theoretically, the base of these rotating waves has an infinite width. In other words, the waves of the energy body are closed in a spherical shape and they spin around their own axis. This “spinning” does not mean they are spinning like a top, but rather that the progression of the waves is closed within a spherical shape. Since the waves are closed, such energy bodies form independent energy systems. For this reason, they are distinguished from static energy body. Each individual kinetic energy body is independent and small in size. Fundamentally, there is one type of wave frequency type for each type of elementary particle. Thus, the closer the wavelength is to the center (axis), the bigger the amplitude and the higher the energy level. But there are times when elementary particles of different types (frequencies) form compound waves, creating another type of elementary particle.

3. Elementary Particle Model

If an image of an elementary particle based on the properties summarized above is created, it looks like Fig. 1. However, an illustration of the infinite span of the base

of the wave is omitted, as it is difficult to create this image. Even though this is an explanation of kinetic energy bodies, they may be described below as merely “elementary particle,” “electron,” “proton,” or “neutron” for simplicity.

C. The Fundamental Principle of Interaction

1. In cases where there is a change in energy levels between an energy body of one system and an energy body of another system, energy moves from a high energy system toward a low energy system, as a method of maintaining equilibrium—this principle is self-evident. This propensity to maintain equilibrium works as the force that is the basis of many physical phenomena.

2. The size of the force is proportional to the difference in the energy levels that occurs between the two energy body systems. Furthermore, when there is spatiality given to each system by the changes in energy levels, it is necessary to assume a quantity that considers the expansion of space, such as the square of the distance.

3. In the case when one system and another system have the same kinetic energy bodies, it works as interaction through the change in energy levels, which are produced by the combination of the direction of travel of the waves that exist as the particles of each system. Strong interaction, electromagnetic interaction, and weak interaction fall under this category.

4. When a change in energy levels occurs inside the static energy body, the other system— the kinetic energy bodies —which has been put in this space, receives the force that occurred due to the changes in energy levels of the static energy body with which it has been switched. Gravitational interaction and dark energy fall under this category.

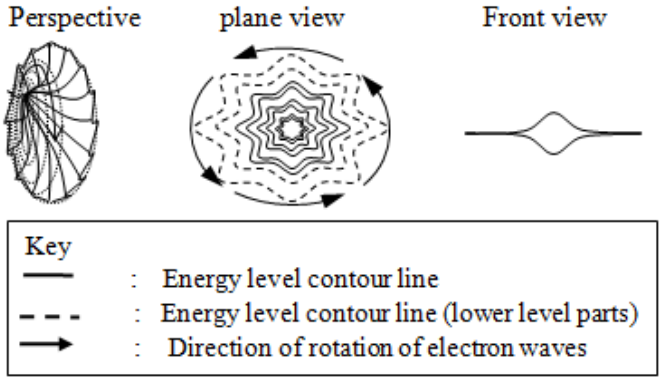

FIG. 1. Image of form of elementary particle, including electrons.

III. GRAVITY

A. Occurrence of Gravity

- Large quantities of gas accumulate in space (static energy body) and stars are created, but at the smallest possible scale, this gas is made up of elementary particles (kinetic energy bodies).

- In other words, elementary particles expanding in the space V_0+V_1 accumulate in the space V_0 resulting in the traces of kinetic energy bodies in the space V_1 and a star V_0 is created.

- At this time, because static energy body from a wide space V_2 outside of the space V_1 collapses into the narrower space V_1 that was occupied by the kinetic energy bodies, some static energy body exists that cannot enter into the narrow space. The static energy body that is unable to enter is surplus, and becomes high energy; thus, kinetic energy bodies are created.

- The expression “collapse” is used because when the bottom of a vessel, that is, shaped like a cone of an hourglass is opened, the dust that enters into the vessel falls only into a certain area. Whilst expanding along with the cone-shaped vessel, the collapsed particles pile up. Static energy body is the equivalent of the dust.

- As a result of this conversion, static energy body is reduced from the space V_1

- But, because static energy body is poured in from space V_2, the static energy body of the insufficient space V_1 returns to the original state and maintains equilibrium.

- After this, the shortage of static energy body, which occurred between space V_2 and space V_1, the excess of static energy body, and the conversion to kinetic energy bodies are repeated in the same way until the end of space.

- As a result, because the collapse of static energy body expands so far that it is a great distance from the star, the volume of collapsed static energy body also expands.

- On the other hand, there is occurrence of excess in the collapsed static energy body at all such times.

- This surplus static energy body is compressed by the narrowing of space, entering into a state of high energy, and converting into kinetic energy bodies. For this reason, the further away from the star, the more the static energy body decreases. This is the source of Newton’s theory of gravity, and the source of the bending of space, which is discussed

in Einstein's general theory of relativity. Furthermore, static energy body is supplemented from outside space, into the space from which the static energy body collapsed. Thus, the energy level of the static energy body continues to maintain equilibrium. That is to say, space continues to exist as it is.

More, considering the collapse of static energy body from an extremely mini scale point of view, the collapse of static energy body is the collapse of energy cell bodies. On the other hand, because static energy body is reduced in the universe as a whole, there is a space where there is a difference in energy. But space remains as if it were before. And there is deformation of energy level in energy body. This is explained using Fig 2. Fig 2 shows an illustration of the cross-section of the spherical space.

B. Working out the gravity equation by energy body theory

The force that objects in the gravitational field come under can be obtained from through the following:

1. Approach

1. The force that objects come under is proportional to the decreasing rate in the energy level of the static energy body where the object is. Because, there are two forces that result from the energy level differences between the kinetic and the static energy body, each at front and at the rear of kinetic energy body. And the kinetic energy body receives a resultant force. But, it is sufficient to take decreasing rate of static energy body. Because kinetic energy body is too smaller than static energy body, so the energy level of kinetic energy body is regarded the same as both in front and in the rear.

2. The decreasing rate is obtained from dividing the different quantity of new born kinetic energy bodies D_n between two adjacent layers by the total quantity of the standard state of the static energy body E_s.

3. The force (acceleration g) that objects come under is gotten by multiplying the decreasing rate D_n/E_s by the standard energy level per unit of the static energy body e_u.

$$g = \frac{D_n}{E_s} \times e_u$$

g : acceleration that is applied to the object

D_n : the surplus static energy body (the difference of the volume of static energy body between E_{n+1} and E_n $\because$ $D_n = E_{n+1}$ - E_n, which changes into kinetic energy bodies.

E_s : Volume of energy of static energy body in standard state, in the space of radius R.

e_u : Unit energy volume in standard state of static energy body. (NB: e_u is a value that is determined by the actual measurements.)

4. Fig 3 shows the outer space through which the gas (elementary particles) spread, the stars that are created through the accumulation of this gas, the space in which the static energy body collapses, and the distance from each volume of surplus static energy body.

2. Collapsed and surplus static energy body

1. At first

V_n :the adjacent layers of space V_{n-1} that is at intervals of h, and is away $r + nh$ from the star

E_n : the volume of static energy body that collapses into the space V_{n-1} from the space. Then, $E_n > E_{n-1}^{'}$.

$E_n^{'}$: the volume of static energy body traces that is left in the space V_n, because static energy body collapsed into the space V_{n-1} from the space V_n Notes: just only in the case of $n = 1$, static energy body traces are replaced by kinetic energy body traces.

2. The kinetic energy bodies of the gas that expands in space $V_0 + V_1$ accumulate, creating stars V_0.

- Space V_0 and star V_0 are the same size in space and are in the same place.
- There is a shortage E_1 of static energy body in space V_1 after the kinetic energy bodies from this space have accumulated in space V_0.
- This state means that due to the movement of the kinetic energy bodies in space V_1, there is a shortage of static energy body, which corresponds to the number of kinetic energy bodies in space V_1 x the capacity of a single kinetic energy body.
- Therefore, if this can be thought of as the number of kinetic energy bodies multiplied by voids with the capacity of a single kinetic energy body, then it can be appropriately named kinetic energy body traces.

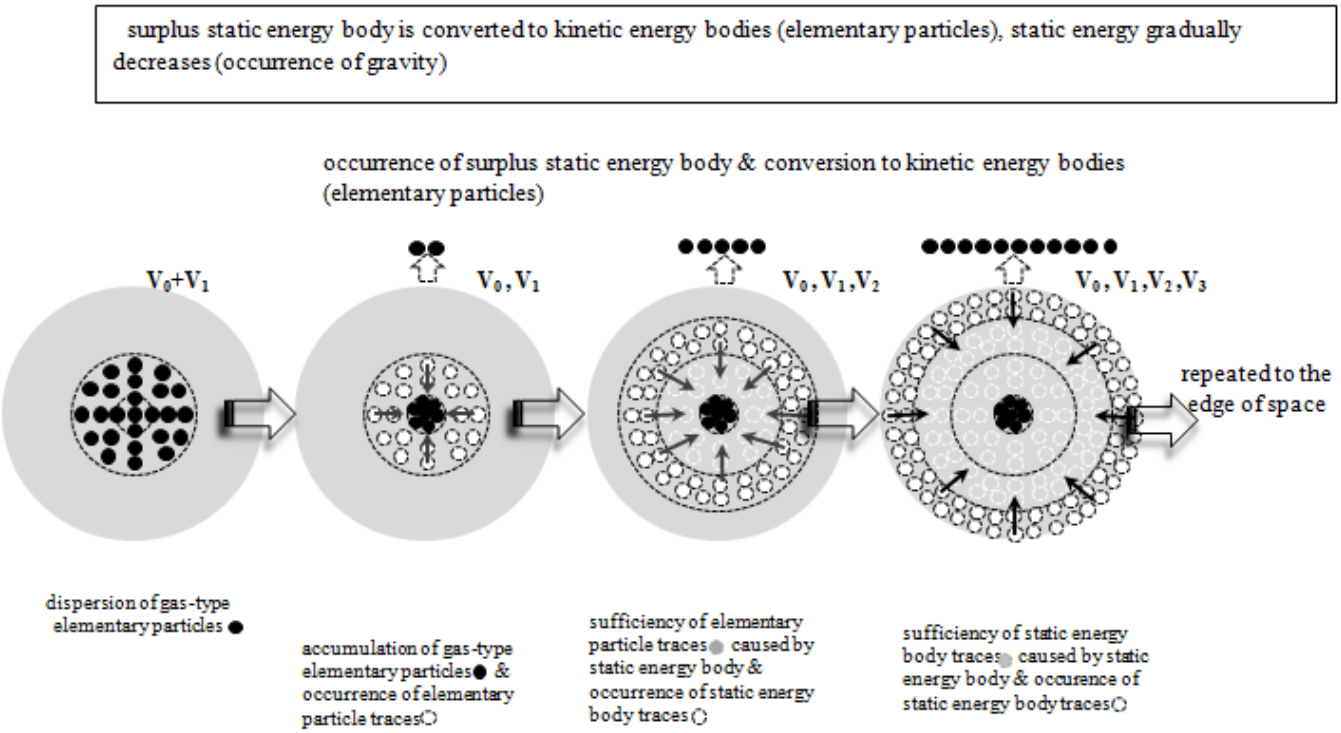

FIG. 2. Process of occurrence of gravity by space's (surplus static energy body's) changing into elementary particles (kinetic energy bodies) around a star.

- Furthermore, the distance of movement in order for the kinetic energy bodies of space V_1 to accumulate in space V_0 ranges from r to h, due to the difference in distribution density of kinetic energy bodies.
- Then, the static energy body that is necessary to supplement the kinetic energy body traces $E_1^{'}$ in space V_1 is taken as E_1.

3. Because of the shortage E_1 of static energy body in space V_1, static energy body E_2 collapses into the kinetic energy body traces $E_1^{'}$, from the outside space V_2.
   - At the same time, there is the static energy body traces $E_2^{'}$ in space V_2, corresponding to the kinetic energy body traces $E_1^{'}$
   - And $E_2 > E_1$, therefore, at the stage of collapse into space V_1, The surplus static energy body D_1 of static energy body occurs. $D_1 = E_2 - E_1$
   - Because of the fact that the static energy body of space V_2 has collapsed into space V_1, there is a shortage E_2 of static energy body in space V_2, corresponding to $E_1^{'}$.
   - Just like kinetic energy body traces, this is appropriately named static energy body traces.
   - The density of E_2 in space V_2 is the same as the density of kinetic energy body traces $E_1^{'}$ in space V_1.
   - As a result of static energy body being supplemented from space V_2, the shortage of static energy body in space V_1 is resolved.
   - In addition, the height at which static energy body collapses from space V_2 into space V_1 is set to h.
   - The surplus static energy body D_1 accumulates and enters into a state of high energy, converting from static energy body into kinetic energy bodies.
   - As a result, the static energy body only reduces D_1 from space V_1.
4. This reduced D_1 of the static energy body becomes a change in energy level of the static energy body, between space V_2 and space V_1. Thus, force is applied to objects (kinetic energy bodies) that are in this location.
5. In the same way, static energy body E_3 collapses from V_3 into the static energy body traces that occur in space V_2, causing the occurrence of surplus static energy body D_2. This continues from here on in, therefore becoming $D_n = E_{n+1} - E_n$

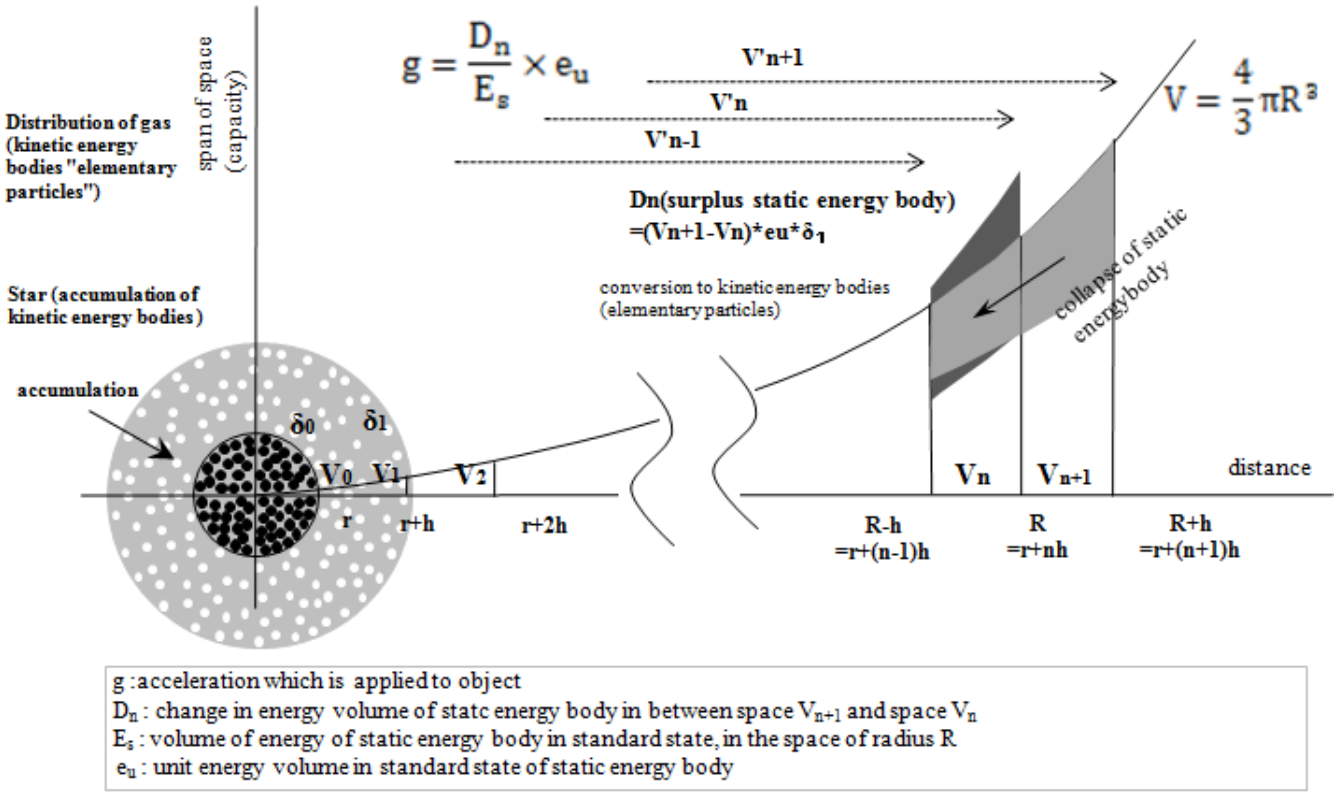

FIG. 3. Working out gravitational acceleration by energy body theory (The conversion of surplus static energy body into kinetic energy bodies).

3. *Working out gravity equation*

The following equation is already stated.

$$g = \frac{D_n}{E_s} \times e_u \tag{1}$$

$$D_n = E_{n+1} - E_n \tag{2}$$

E_n is obtained by multiplying the volume of unit energy e_u in its standard state and also the density δ_1 of kinetic energy body traces in the space V_1, by the capacity of the space V_n.

$$E_n = V_n \times e_u \times \delta_1 \tag{3}$$

Just as with E_n, E_{n+1} is obtained.

$$E_{n+1} = V_{n+1} \times e_u \times \delta_1 \tag{4}$$

Therefore, D_n " (2) " becomes the following equation:

$$\therefore D_n = (V_{n+1} - V_n) \times e_u \times \delta_1 \tag{5}$$

Furthermore, V_{n+1} and V_n are expressed by radius r of the star that is created through the accumulation of elementary particles and distance R from the star.

V_n: : Capacity of the nth space where the static energy bodies collapse at distance h. Therefore, V_n is the capacity of the space where the spherical radius was in between $r + (n-1)h$ and $r + nh$.

$V_n^{'}$: : The spherical radius is the capacity of the space of $r + nh$.

The following equation can be created from the connection between V_n and $V_n^{'}$.

$$V_{n+1} = V_{n+1}^{'} - V_n^{'} \tag{6}$$

$$V_n = V_n^{'} - V_{n-1}^{'} \tag{7}$$

Furthermore, when $R = r + nh$ is considered, $V_n^{'}$he above equation can be written as follows:

$$V_{n+1}^{'} = \frac{4}{3}\pi(R+h)^3 \tag{8}$$

$$V_n^{'} = \frac{4}{3}\pi R^3 \tag{9}$$

$$V_{n-1}^{'} = \frac{4}{3}\pi(R-h)^3 \tag{10}$$

Therefore, “ (5) ” is as follows:

$$\begin{aligned} D_n &= [(V_{n+1}^{'} - V_n^{'}) - (V_n^{'} - V_{n-1}^{'})] \times e_u \times \delta_1 \\ &= 8\pi R h^2 \times e_u \times \delta_1 \end{aligned} \tag{11}$$

Next, E_s is found. E_s is the volume of energy of static energy body of a standard state, in the space of radius R. Therefore, it is obtained by multiplying the unit energy e_u in the standard state of static energy body, by the space that takes the distance of R from the center of the star to be the radius.

$$E_s = \frac{4}{3}\pi R^3 \times e_u \tag{12}$$

Because D_n “(11)” and E_s “(12)” have been obtained, acceleration g “ (1) ” is as follows:

$$\begin{aligned} g &= \frac{8\pi h^2 R \times e_u \times \delta_1}{\frac{4}{3}\pi R^3 \times e_u} \times e_u \\ &= \frac{8\pi h^2 \times \delta_1}{\frac{4}{3}\pi R^2} \times e_u \end{aligned} \tag{13}$$

Next, h is sought.
The mass of the density δ_1 of the elementary particles multiplied by the capacity of the space V_0+V_1 is equal to the mass of the density δ_0 of the elementary particles multiplied by star V_0 where the elementary particles shrank.

$$(V_0 + V_1) \times \delta_1 = V_0 \times \delta_0 \tag{14}$$

$$V_1 = V_0 \times \frac{\delta_0}{\delta_1} - V_0 \tag{15}$$

δ_1, δ_0,V_0 and $V_1$are as follows;

δ_1**:** :equal to the density of the gas that is distributed in the space of radius $r + h$. $\delta_1 = \frac{M}{V_0+V_1}$ (M is the total volume of gas.)

δ_0**:** : density of star of radius r $\delta_0 = \frac{M}{V_0}$ (M is the total volume of gas = mass of star.)

V_0**:** : capacity of star of radius r

V_1**:** : capacity of the space, where the spherical radius is between r and $r + h$, in which distribution occurred before the elementary particles (excluding V_0) became a star.

Then, the former equation (15) can be replaced.

$$\frac{4}{3}\pi(r+h)^3 - \frac{4}{3}\pi r^3 = \frac{4}{3}\pi r^3 \times \frac{\delta_0}{\delta_1} - \frac{4}{3}\pi r^3 \tag{16}$$

When adjusted, h is obtained as follows:

$$h = r \times (\frac{\delta_0}{\delta_1} - 1)^{\frac{1}{3}} \tag{17}$$

In the above equation, δ_1 is a numerical value much larger than 1, so the 1 inside the parentheses can be ignored.

$$\begin{aligned} \frac{\delta_0}{\delta_1} &= \frac{M}{V_0} \div \frac{M}{V_0 + V_1} \\ &= 1 + \frac{V_1}{V_0} \gg 1 \end{aligned} \tag{18}$$

$$\therefore h \cong r \times (\frac{\delta_0}{\delta_1})^{\frac{1}{3}} \tag{19}$$

When this h “ (19) ” is substituted for acceleration g “ (13) ”, the following “ (20) ” can be obtained:

$$g = \frac{8\pi r^2 \times (\frac{\delta_0}{\delta_1})^{\frac{2}{3}} \times \delta_1}{\frac{4}{3}\pi R^2} \times e_u \tag{20}$$

When this equation “(20)” is modified, it is as follows:

$$g = \frac{\frac{4}{3}\pi r^3 \times \delta_0 \times \frac{6}{r} \times \delta_0^{\frac{-1}{3}} \times \frac{3}{4}\pi \times \delta_1^{\frac{-1}{3}}}{R^2} \times e_u \tag{21}$$

In the above equation “ (21) ”, $\frac{4}{3}\pi r^3 \times \delta_0$ is replaced with M to show the mass of the star. Also, because $\frac{6}{r} \times \delta_0^{\frac{-1}{3}} \times \frac{3}{4}\pi \times \delta_1^{\frac{-1}{3}} \times e_u$ is a constant, it is replaced with G. As a result, acceleration g takes the following form:

$$g = \frac{GM}{R^2} \tag{22}$$

Space in which there is a gradual decrease of static energy body is formed, due to the creation of star M. Objects of mass m that are in this location receive force that produces an acceleration of g. This gives the same result as the gravity equation, which is derived from the law of universal gravitation.

$$\begin{aligned} f &= gm \\ &= G\frac{mM}{R^2} \end{aligned} \tag{23}$$

IV. DARK ENERGY

A. Occurrence of dark energy

The chain of collapse of static energy body E_n , which is explained by the creation process of gravity, continues perpetually from $n \to \infty$. Because outer space is static energy body, it does not span infinitely, but is a finite existence. Therefore, taking the distance from the center of the star to the end of space as $r+\epsilon$ and taking n, which is the space of ϵ in the end of space, as V_ϵ, we will consider the supplementation of static energy body traces $E_\epsilon^{'}$, which is caused by the static energy body E_ϵ that collapsed in the space $V_{\epsilon-1}$. Because there is no static energy body outside of space V_ϵ , the static energy body

for the supplementation of V_ϵ must be supplemented from inside the space. In other words, following the creation of gravity and the reverse process, there is a tendency to maintain the static energy body. However, the shortage of static energy body is not the same as it was before the creation of gravity. This is because when gravity is created, the collapse of static energy body advances from large space into small space, and the shortage of static energy body, which is caused by static energy body traces, is 100% supplemented. Even so, because in this case, the supplementation of static energy body is from small into large space, if the shortage of the static energy body is not 100% supplemented, it remains insufficient. Shortage of static energy body is not the disappearance of space, but is the expansion of energy cell bodies and decrease in the energy level per unit capacity. This is a reverse phenomenon to that of energy cell bodies becoming compressed, entering into a state of high energy and converting to kinetic energy bodies. The cause of this is what is called dark energy. If we say that a difference in energy levels in the gravitational field occurs as the bending of space, we can also say that effectively, a difference in energy levels occurs in the dark energy field.

B. Calculation of anti-gravity

Next, the calculation of anti-gravity caused by dark energy is demonstrated in the same way as gravity. So, the process is omitted. The reverse gravitational acceleration , which is applied to the object that moves R from the end of space can be obtained through the following equation.

$$g_B = -G\frac{M}{R^2} \tag{24}$$

Thus far, anti-gravity applied to the object at distance R from the center of the star has been found. However, distance R from the center of the star is not adequate for expressing anti-gravity. This is because while gravity starts from the center of the star, anti-gravity starts from the end of space. Thus, when R is replaced as shown at " (25) " , it becomes as follows:

$$R = R_H - R_h \tag{25}$$

R : distance from star to object.

R_H : distance from end of space to star.

R_h : distance from end of space to object.

$$g_B = -G\frac{M}{(R_H - R_h)^2} \tag{26}$$

A minus sign is given to the acceleration because the direction of the speed is opposite to that of gravity.

V. DIFFERENT POINTS BETWEEN GRAVITY AND ANTI-GRAVITY

The differences between the gravitational and anti-gravitational fields are shown below.

1. While the direction of acceleration in the gravitational field moves toward the center of the star, in the anti-gravitational field, it moves toward the end of space. Thus, in the anti-gravitational field, not only objects but also the star itself receives anti-gravitational acceleration.

2. In the space of the gravitational field, the energy volume of static energy body maintains a standard level, and an observer in this location would be unable to detect change in these levels. However in the anti-gravitational field, the static energy body volume actually decreases, and an observer in this area would be able to detect changes in these levels.

3. The gravitational field depends on the star that causes it. If the star moves, the gravitational field also moves.

4. In contrast, once created, the anti-gravitational field begins to exist independently from the star by which it was caused. Therefore, without the influence of other gravitational fields, the reverse gravitational field will remain in the location in which it was created, even if the star moves.

5. In terms of connection to other gravitational fields, when two or more gravitational fields overlap, each gravitational field exists independently, and each have independent gravitational influence on objects in that space.

6. In contrast, when two or more anti-gravitational fields overlap, they affect each other and a new anti-gravitational field is created. In other words, at the same time that objects in the gravitational field of the star are influenced by the star's gravity g, they also receive anti-gravitational acceleration g_B in the direction of the end of space. Therefore, while the object falls toward the center of the star, it is also being pulled in the direction of the end of space at the same time. Acceleration toward the end of space is also applied to the star that created the anti-gravity. However, the speed and direction in which the object and star are pulled are decided by the distance from the end of space. Therefore, they are different depending on the location of the star in space. The nearer the star is to the end of space, the greater the acceleration applied to the object in the anti-gravitational field. Furthermore, the gravitational field is bent by the change in the volume of energy of static energy body and hence is dependent on stars or objects individually. However, for anti-gravitation fields, the volume of static

energy body per unit space is actually decreasing; hence, it joins with an anti-gravitational field created by other stars and a new anti-gravitational field is formed. There are countless numbers of stars that create anti-gravitational fields; thus, the calculation of acceleration is extremely difficult.

VI. THE SPACE CIRCULATION SYSTEM OF STATIC ENERGY BODY

Incidentally, when gravity occurs, there is a conversion from static energy body to kinetic energy bodies; however, spatially, the volume of static energy body is sufficient. Moreover, anti-gravity occurs because the volume of static energy body drops, and kinetic energy bodies are absorbed and converted into static energy body at the end of space in order to maintain the volume of static energy body at a standard level. Thus, the stars moved to the verge of space blow up, and turn into gas. And before long, it is thought that kinetic energy bodies will be absorbed into static energy body. It indicates that the explosions of stars could be the cause of the cosmic microwave background. This suggests that the cosmic microwave background is not the evidence of the so-called Big Bang , but the large circulation system of static energy body → kinetic energy bodies → static energy body →.

VII. INTERFERENCE OF ELEMENTARY PARTICLES

A. Outline of interference

In elementary particle physics, the interaction of the four forces is said to occur through the catching (emission and absorption) of gauge particles. The four types of gauge particles are: photons, which propagate electromagnetic energy, gravitons, which propagate gravity, weak bosons, which propagate weak interaction, and gluons, which propagate strong interaction. Among these, with the exception of gravitons, three interactions are clarified. Futamase[1] states these in the statement. As has already been explained, gravity does not occur due the catching of gauge particles, but due to the difference in energy levels of energy body. Next, It will be shown that both strong and weak interaction can be explained by changes in energy levels of energy body. Fig 4 summarizes the explanation of elementary particles (kinetic energy bodies) with energy body theory.

B. Interference fringes of electron

Before advancing to interaction, one of superb points about the energy body model of electron should be shown through the better understanding of the double-slit electron interference experiment. The double-slit electron interference experiment is that, when many electrons pass through the double slits, the interference fringes of electron appear on the screen. Concerning that, there is the "Copenhagen interpretation," which holds that the waves of the electron are spread out just before they arrive at the screen, but in the second at which they arrive (i.e., the second at which observation occurs), they are compressed into sharp needle-like waves. They feel that it is not understandable, but it is still currently supported. Mizutani(eds)[3] states these in the statement. This text can produce better interpretation that the interference fringes are caused by the reason that each wave of electrons (kinetic energy bodies) affects their way and some change. Although as it is that the location of electron is decided by probability.

- The waves of electrons rotate around the electron's own axis. Therefore, following the trajectory of one point of the electron wave before the electron reaches the screen, the electron wave, which was enclosed in a circular shape, unfolds onto a straight line.
- Thus, when the electron collides with the screen, part of the waveform of the rotating wave of the electron touches the screen. When many electrons are fired, parts of many waves will reach the slits. For this reason, the arrival points of the electrons on the screen reflect the electron waves as a whole. In other words, it is like drawing electron waves by pixel art.
- The arrival points of the electrons reflect the waveform of the electron waves around slit X, spreading across the screen. At the same time, the traces of the electrons that passed through slit Y, as a whole, reflect the waveform of the electron waves around slit Y, spreading across the screen.
- In many cases, the arrival points of the electrons that pass through slit X and the electrons that pass through slit Y overlap. Because the bases of the waves spread out, electrons that are close influence each other.
- However, because the electrons are emitted from the electron gun one-by-one, there is doubt as to whether or not electrons that pass through slit X and slit Y encounter each other. Details on this are as follows:
- The trajectories of electrons that pass through slit X are not the same length as the trajectories of those that pass through slit Y.
- Thus, there is a high probability that the electrons that pass through slit Y will be delayed and will reach the screen at the same time as those that passed through slit X. Moreover, because the base

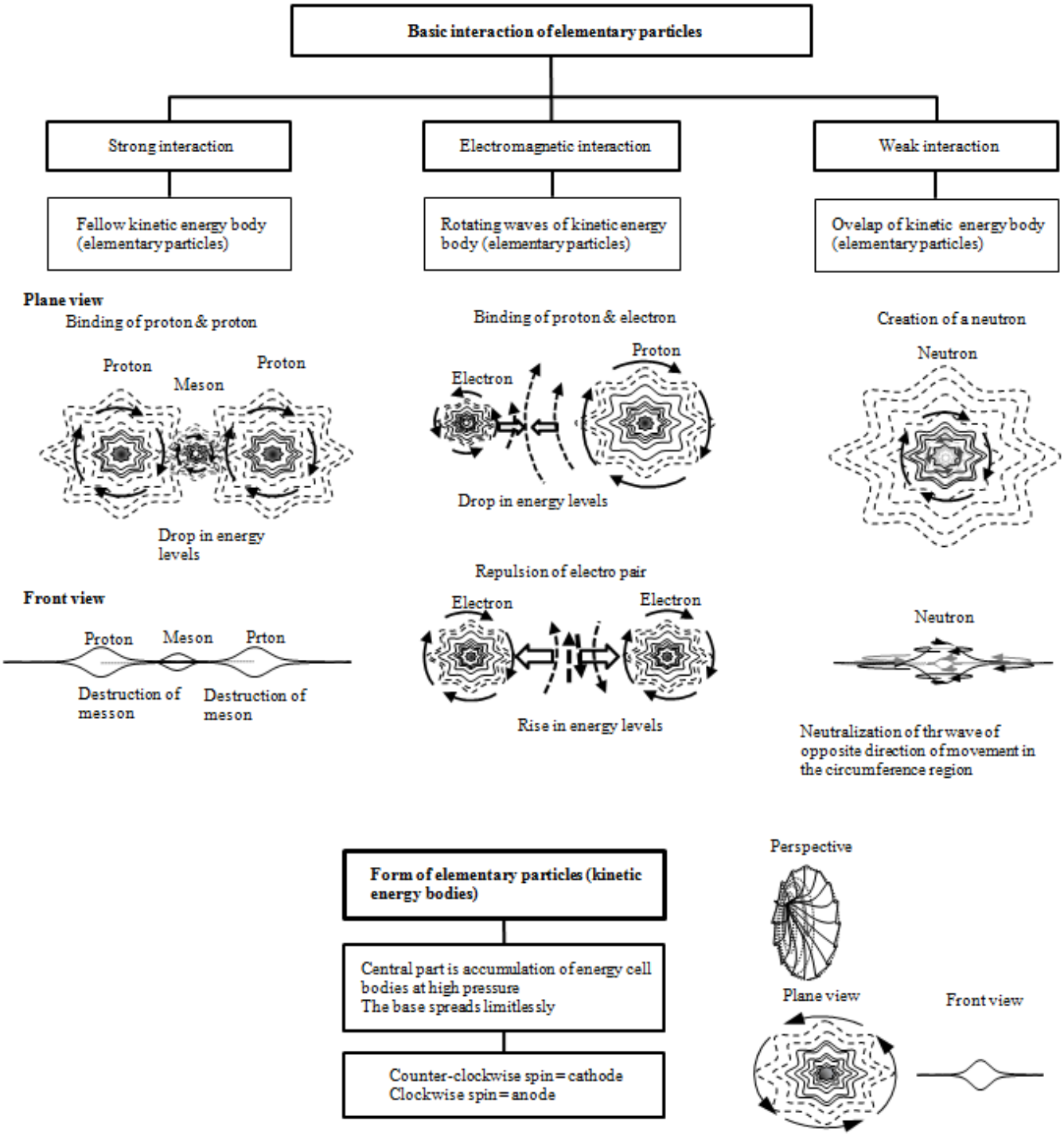

FIG. 4. Explanation of elementary particles in the energy body theory.

of the wave is spread out and inclines as it advances, the probability is higher still.

- Here, we can assume that the electrons that pass through slit X and electrons that pass through slit Y do encounter each other. When this encounter of the electron pairs takes place, the movement of direction of the waves reverse each other; hence, they repel each other and their paths change. (A minus pair in terms of electric charge). Interaction of electrons is detailed in "8 — (Interaction of Electromagnetism (Electrical Charge)."
- At this time, when both electrons encounter each other at peaks, the pair are strongly repelled, and change path. For this reason, at the point where

the electron continues straight and should arrive at the screen, the electron does not arrive and the spot becomes a shadow instead. This is the shadow part of the interference wave.

- On the other hand, when both electrons encounter each other at troughs, the repulsion force is weak, and both electrons continue forward unchanged and shine onto the screen. Furthermore, adding to this the electrons that met at peaks and changed paths, the screen shines brightly. This is the bright part of the interference wave.
- In this way, when many electrons are emitted, interference fringes appear on the screen.
- If it is an interference fringe that appears with a normal wave, the two peaks overlap and are strengthened. However, in the case of electrons, the characteristic is that, conversely, they become darker. Fig 5
- Furthermore, the interference fringe spreads to the upper and lower parts of the screen at the same width. However, this is not because the electrons advance and maintain the equilateral plane evenly, but rather because they incline toward a perpendicular direction, curve and continue onwards. Thus, when the electron touches the slit, it receives force from vectors that work upward or downward. Fig 6

VIII. INTERACTION OF ELECTROMAGNETISM (ELECTRICAL CHARGE)

In this chapter, it is shown that the model of elementary particles depicted by energy body theory can be effectively applied to the interaction of electromagnetism (electrical charge) too, and the interaction of electromagnetism works by the difference of energy level of energy body under the theory for everything of energy body. More, whole electromagnetic force is shown in the 11. “ Interaction of Electromagnetism (Electromagnetic Force) ”

A. Binding of electron and proton

Currently, it is said that electrons and protons have the opposite electric charge. Where the electric charge is the same, there is repulsion, and in cases where the charge is different, there is attraction. In other words, when electrons have an electric charge of minus 1, protons have an electric charge of plus 1. Furthermore, because neutrons do not have electric charge, there is neither repulsion nor attraction. The propagation of power in a remote space is explained in quantum mechanics as there being an electromagnetic field in this space, and force is propagated through the exchange of photons. Futamase[1] states these in the statement. Then, how can this be explained with energy body theory? The rotation of elementary particle waves is related to the cause of difference in energy levels. Details about the interaction of electrons and protons within elementary particles are as follows.

1. Elementary particles are kinetic energy bodies with closed energy body waves that revolve to the left around the progression axis. In contrast, protons are kinetic energy bodies with closed energy body waves that revolve to the right around the progression axis. This causes the action of both the plus and minus electric charge.
2. When protons and electrons draw close, the electron waves that rotate left and the proton waves that rotate right begin to rotate in the same direction between the electrons and protons. As a result, in this part, the speed of the waves becomes faster, wavelength extends, and the energy levels of the energy body drop. Thus, a force works from the center of the electrons and protons toward the space in between them, and the electrons and protons bind.

Fig 7 $*$ This has been illustrated as a model, so the wave frequency is different from the actual wave frequency. (The same below).

1. Electron transition

Electron transition in the binding of electrons and protons is explained by energy body theory. In the binding of electrons and protons, it is explained that in the place between the electrons and protons, the waves of both become unified in direction. As a result, the energy levels of the energy body decrease, and force works in the direction of this place. This is the place where the line of electric force (which will be called energy line from now on. see; 11.1. Electromagnetism), explained by electric charge, becomes shorter between the electrons and protons. When electrons and protons become close, wavelength extends, and there is a drop in energy levels of energy bodies, so electrons and protons may be thought to attach regardless of the distance, but this is not so. (Bohr's quantum condition.) The reason for this is as follows. Figs 8 & 9

1. The waves of an elementary particle (kinetic energy body) are closed in a circular shape, with a frequency that is characteristic to each type of elementary particle. Therefore, even if there is partial expansion and contract of wavelength, the number of nodes in the circumference does not change.

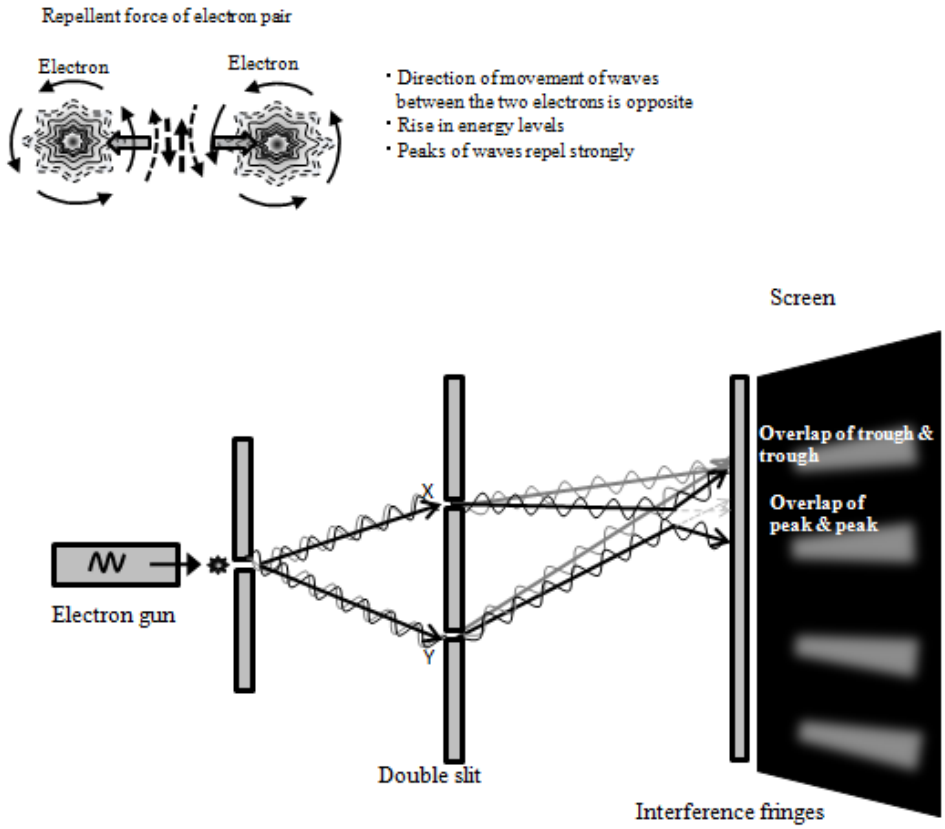

FIG. 5. Energy body interpretation of double-slit electron interference experiment.

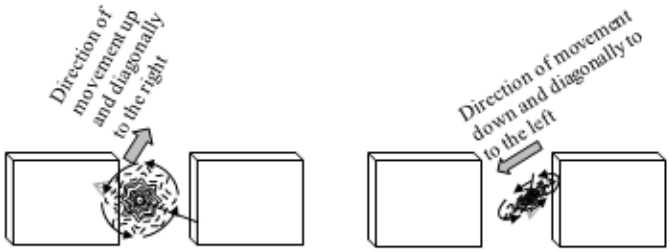

FIG. 6. 2Positions and directions of movement of an electron when passing through the slit .

2. The number of nodes of proton waves is the same integer at any distance, regardless of the position from the center of the proton.

3. The number of nodes of electron waves is also the same integer at any distance, regardless of the position from the center of the electron.

4. In the bound part of the electron and proton, the number of nodes of the proton waves must be a numerical multiple integral of the number of nodes of electron waves in the bound part. This is because the waves of the electron and proton in the bound part are shared, so closed waves would not be practical if nodes shifted position.

5. Because the energy lines of electrons and protons spread out in a radial manner, the equipotential lines (which will be called energy level contour line from now on. see; 11.1. Electromagnetism), which is the circumference of proton wave becoming the integral multiple of the nodes of the electron wave, appears at intervals.

6. The orbit of the electron chooses only one energy level contour line, which is the number of nodes of the proton wave that appear at intervals becoming the integral multiple of the nodes of the electron

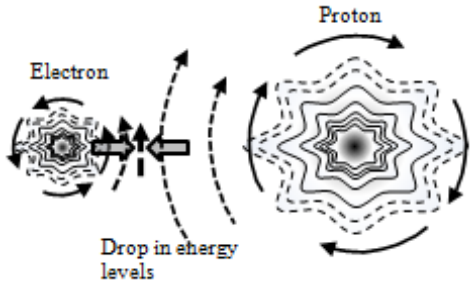

FIG. 7. Binding of electron & proton.

wave.

7. The reason for this is that the electron inclines toward the horizontal plane of the proton, so it can only come into contact with the horizontal plane of the proton in one place.

8. The reason that the electron inclines toward the horizontal plane of the proton is because the wavelengths length

2. *Repulsion of electron and electron or proton and proton*

When two electrons or two protons draw near to each other, between the two electrons or two protons, the waves of each electron or proton go in the reverse direction. For this reason, the speed of the wave then becomes slower, and the wavelength shortens. Then there is a rise in the energy levels of the energy body between the two electrons or two protons, and a force works toward the center of the other electron or proton. As a result, the electron or proton pair repel one another. Fig 10

3. *Binding of protons and protons*

The binding of nucleons in the atomic nucleus that is called strong force, is explained by quantum theory in the following way. Protons have an electric charge of +1, so a repulsive force works between the protons. However, in the atomic nucleus, they are bound by nuclear force. This nuclear force, which joins nucleons together, occurs when pi mesons are exchanged between the nucleons. Furthermore, it is currently thought that nucleons are made up of quarks. Futamase[1] states these in the statement. In contrast, the explanation according to energy body theory is as follows. Fig11.

Between proton and proton, the waves that rotate right both move in opposite directions. Thus, as with electrons, there is a repulsive force at work. When a meson, which rotates left, is interposed between the two protons, the direction of movement of the waves between the nucleons becomes the same between each particle. Thus, there is a force between the proton and the meson, which works toward the central direction of each other's electrons. As a result, the protons bind together. In the case of electrons and protons, the electron tilts, due to the fact that it is rotating around the proton. It settles on one single orbit, where the number of wave nodes of bound proton area equals an integral multiple of the number of wave nodes of the electron. However, in the case of mesons and protons, it is not possible for the meson to tilt and settle on one orbit like an electron does. The reason for this is that the direction of movement of the waves between the two protons and one meson all flow in the same direction, and energy levels drop equally. Because the energy line is continuous, there are a countless number of orbits between the proton and meson, where the number of wave nodes of the proton do not equal an integral multiple of the number of wave nodes of the meson. Therefore, strictly speaking, they do not overlap. However, when pushed by a strong outside force, overlap can occur. In a place with low energy levels where the waves of protons and the waves of mesons overlap on a level plane, the meson waves break down and are swallowed by the proton waves. However, in places close to the center of the meson, the meson waves are strong, because they break out of the level surface of the proton waves. As a result, the meson wave energy level is stabilized in a position where it does not break against the energy level of the proton waves, and where the number of proton wave nodes in the binding area equals an integral multiple of the number of meson wave nodes, as occurs between protons and electrons.

B. Binding of protons and neutrons

1. *Creating of neutrons*

Neutrons are elementary particles with an electric charge of zero. First of all, a neutron has zero electric charge—energy body theory predicts that when an electron and proton combine, a neutron is created, resulting in the property of having zero electrodes. This is explained as follows. The waves of electrons and protons have opposite rotation to each other, counter-clockwise and clockwise respectively. However, since they flow in the same direction between the electron and proton, it is naturally easy for them to come close together. However, the number of wave nodes cannot be made consistent in the nuclear part of electrons and protons. At the base, the wave is a thin level plane, so it is possible to pick up the wave node resolution. But the waves become dense in the nuclear area, so it is not possible to pick up the wave node resolution. As a result, even when there is attraction between electrons and protons, it does not approach the nuclear area. So, if outside force is applied and it enables the electron to penetrate into the nucleus of the proton, binding is possible, since both protons and electrons are energy body waves. Since the waves' direc-

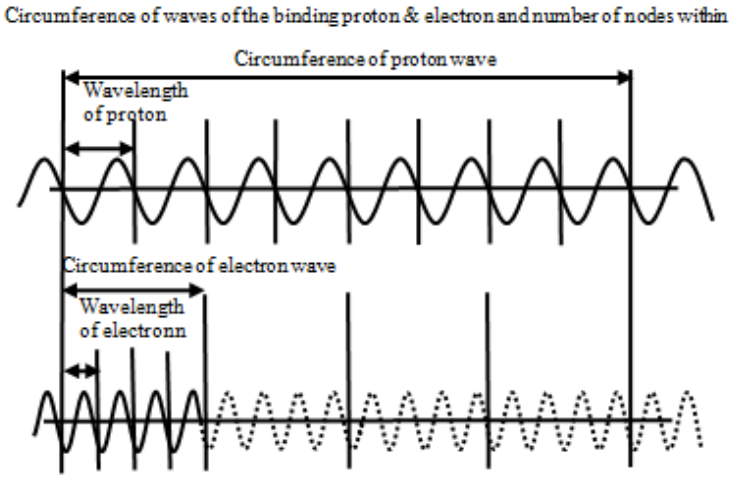

FIG. 8. Electron transition (determination of orbit of electron which rotates around the proton.

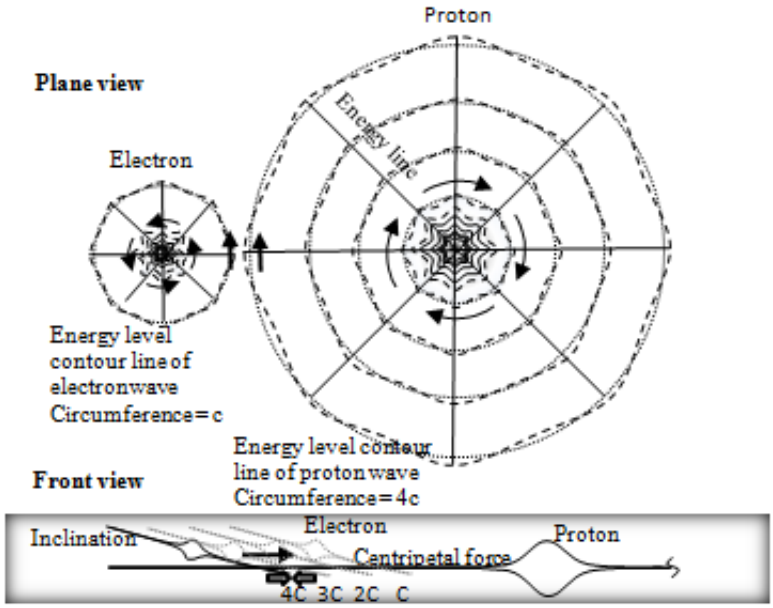

FIG. 9. Electron transition (determination of orbit of electron which rotates around the proton.)

tions of movement are opposite to each other, the waves of the proton and those of the electron that enters into the proton influence each other, forming the properties of a neutron as follows. Fig12 & Fig13

1. When the waves of both proton and electron leave the nuclear area, the energy levels quickly drop, and both are around the same energy level. Because the waves' directions of movement are opposite, they negate each other, and the properties of the wave become undetectable.

2. In the nuclear region of the proton and electron, the waves' directions of movement are opposite and they negate each other, but because protons are far larger than electrons, the properties of the proton waves, which rotate right, remain.

3. Finally, waves display the property of rightward rotation in the nuclear of the neutron, but they are elementary particles that do not show wave properties far away from the base. For this reason, neutrons have no properties like the electric charge of protons, but on the other hand, in the nuclear region, they have the same properties as protons.

2. Binding of protons and neutrons

The waves of both neutrons and protons rotate to the right. This is the same connection as the binding of pro-

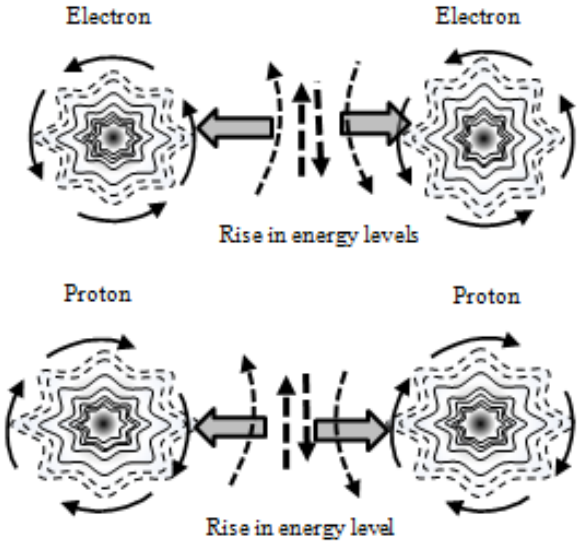

FIG. 10. Repulsion of electron pair and proton pair .

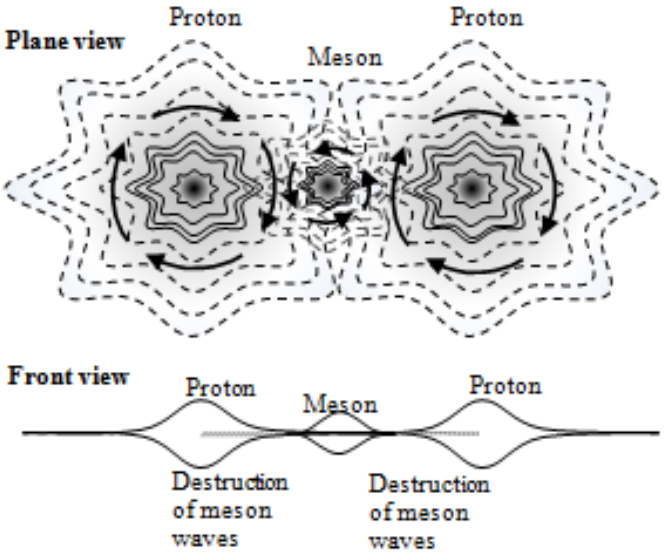

FIG. 11. Role of meson in the atomic nucleus.

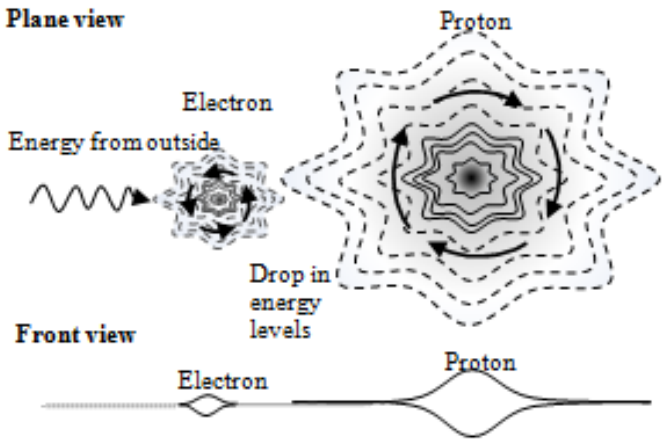

FIG. 12. Formation of neutrons in the atomic.

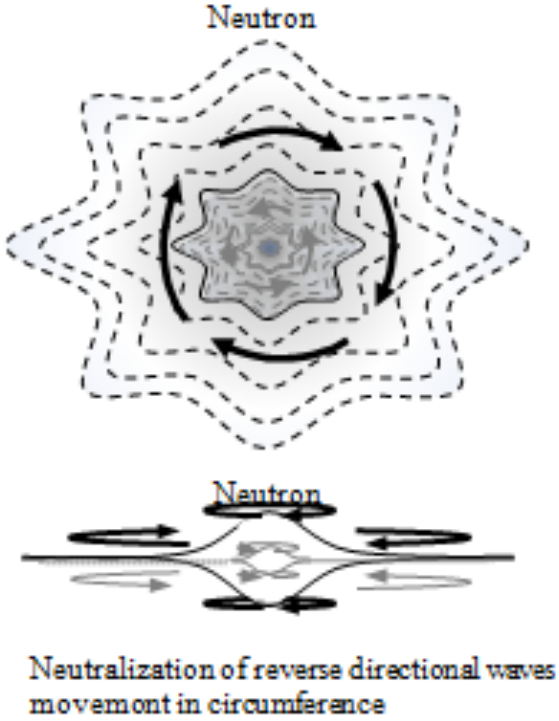

FIG. 13. Establishment of neutron.

ton and proton in the atomic nucleus, so neutrons and protons bind through a meson interposed between them. Fig 14

IX. WEAK INTERACTION

It is known that the model of elementary particles depicted by energy body theory can be effectively applied to the weak interaction too, and the weak interaction works by the difference of energy level of energy body under the theory for everything of energy body. In beta decay, neutrons change into protons releasing w bosons which immediately decay to electrons and antineutrinos. That is caused by weak force in quantum theory. Futamase[1] states these in the statement. Compared with that, energy body theory states as follows. Electrons with rotating waves to the left are pushed into protons with rotating waves to the right by outer force and neutrons are made up. This is described in the last chapter. The decay of neutrons are the same that neutrons go backward their original form.

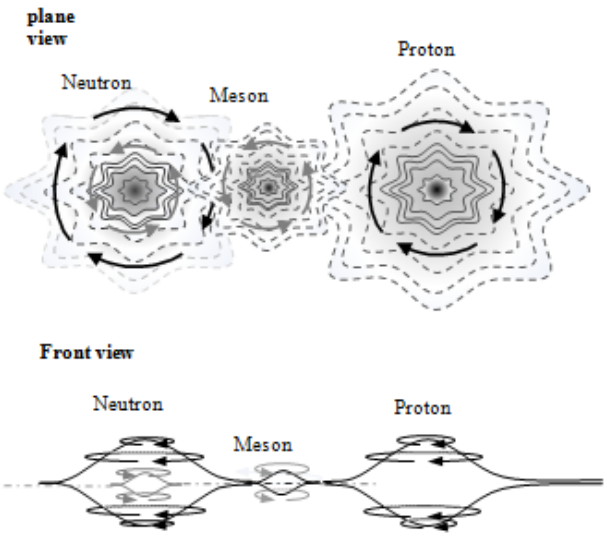

FIG. 14. Binding of proton and neutron in atomic nucleus.

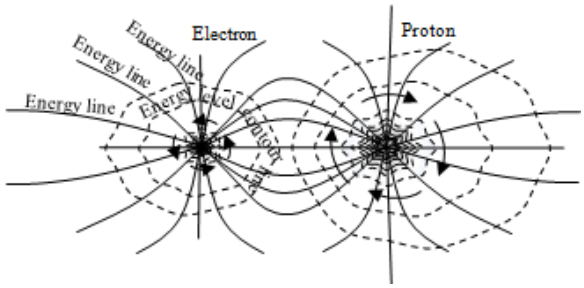

FIG. 15. Electric field & electric charge.

X. INTERACTION OF ELECTROMAGNETISM

In this chapter, it is shown that the model of elementary particles depicted by energy body theory can be effectively applied to the interaction of electromagnetism too, and the interaction of electromagnetism works by the difference of energy level of energy body under the theory for everything of energy body.

A. Electromagnetism

In electrodynamics, electric field is explained as the occurrence of an electric field around electric charge, and when electric charge is put inside of this electric field, force is received from the electric field. An electric field is a space that has its properties changed by electric charge. Lines of electric force and equipotential lines are used to express the condition of this electric field. Wikipedia[5] and Urushibara[6] state these in the statement. Also, When electric current flows, a magnetic field is created around the conductor. Electrodynamics explains that when an electron placed in the magnetic field crosses the equipotential line perpendicularly, it affects the space, and a magnetic field is created perpendicular to the direction of movement of the electron. Urushibara[6] states these in the statement. In elementary particle theory, also, an elementary particle itself has the nature of magnetism. Sakamoto[7] states these in the statement. More, electromagnetic waves are waves (undulation) formed by change in electric and magnetic fields of space. The direction of vibrations produced by electric and magnetic fields of electromagnetic waves are at right angles to each other, and the direction of movement of the electromagnetic waves is also at a right angle to this. By the way, it is already known that electric field and magnetic field are the same thing by Maxwell's equations. Furthermore, special relativity suggests that magnetic field is the same as the electric field gauged from another frame of reference. Wikipedia[**?**] states these in the statement. In contrast, the explanation in energy body theory is as follows. But it can be treated in the same way of electrodynamics. Energy body theory replaces electric fields with the spread of kinetic energy bodies' (the electron/proton aggregations') waves, lines of electric force with energy lines, and equipotential lines with energy level contour lines. A magnetic field is the waves of kinetic energy bodies (electrons) inclining in a perpendicular direction to the direction of movement. When an electron (kinetic energy body) placed in the electric field crosses the energy level contour lines (equipotential lines) perpendicularly, it is affected by the different energy level contour lines, and tries to tilt perpendicular to the direction of movement of the electron. In other words, there is an electron wave that rotates left around the electric current. This is a magnetic field. In conclusion, electric fields and magnetic fields are both the rotating waves of kinetic energy bodies. More. The electromagnetic waves are the imprints left in static energy body by the reciprocal motion that occurs when the orientation of the electron rotates. It is quite obvious on the figures.

B. Electromagnetic field and electric current

The waves of protons and electrons are moving waves that rotate in right and left directions respectively. Therefore, in the space between the electron and proton, the movement of the waves becomes faster, the wavelength extends and the energy level drops. Conversely, on the opposite side, the movement of the wave becomes slower, the wavelength shortens and the energy level rises. Thus, the spacing of the energy level contour lines narrows in the space between the electron and proton and it widens on the opposite side, creating an electric field. Fig 15 shows the energy lines and energy level contour lines of electron 1 and proton 1

The next is the detail of the force received by a charged particle (electron) in an electric field. To make it easy to understand, it will be taken an aggregation of electrons with a negative charge and an aggregation of pro-

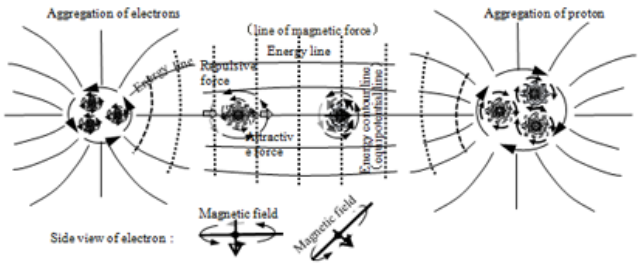

FIG. 16. Travel of electrons & formation of magnetic field.

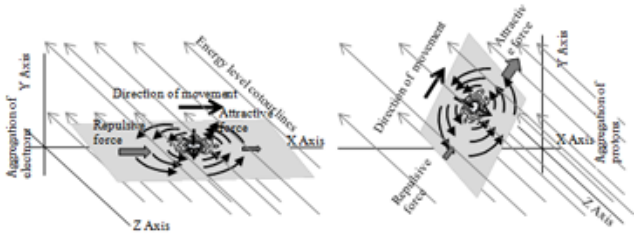

FIG. 17. Travel of electrons & formation of magnetic field.

tons with a positive charge and they are put places apart from one another. The waves of the aggregation of electrons as a whole can be considered to rotate left, the same as the waves of one individual electron. Also, the waves of the aggregation of protons as a whole can be considered to rotate right, the same as the waves of one individual proton. Thus, in the space between the aggregation of electrons and the aggregation of protons, the direction of movement of the electron waves and proton waves becomes the same, and energy level of the energy body drop. Essentially, the electrons and protons attract each other, but we will assume they are kept separate artificially. The electrons in this electric field move in the direction of the aggregation of protons. In other words, the electric current flows and the magnetic field appears. Fig16. The details are as follows.

1. At the rear of the electron, the direction of the electron waves and the direction of the electron/proton aggregations' waves (energy level contour lines) are opposite, so the electron receives a repulsive force in the direction of movement.

2. At the front of the electron, the direction of the electron waves and the direction of the electron/proton aggregations' waves are the same, so the electron receives an attractive force in the direction of movement.

3. Thus, the force that works on electrons is repulsive at the rear and attractive at the front, becoming a resultant force of the vector of the same direction, and moving forward.

4. When the electron starts to move, the position of the electron tilts in a perpendicular direction to the direction of movement, due to the difference in energy levels of the front and rear. N.B.: In reality, it does not tilt in a perpendicular line to the direction of movement, but curves and advances while trying to tilt (while turning in the direction of the axis of the wave). However, when dealing with many electrons as a whole, it can be treated as a "tilt." (Below: treated as "Tilt perpendicular to the direction of movement.")

5. For this reason, the route of the electron strays away from the X axis. Fig 17 illustrates the electron leaving in the plus direction of the Y axis, but in reality, the position of the electron takes the X axis direction as its axis, and assumes a position that rotates in various angles. Therefore, it moves away from the X axis direction at various angles.

C. Electromagnetic induction

The electromotive force is explained, through the connection between the position of electrons as kinetic energy bodies and the direction of waves, when a coil moves within the magnetic field.

1. While the coil is stopped

   - Magnetic fields occur in the space between magnets. In energy body theory, a magnetic field is taken to be the rotation of electron waves. Hence, lines of magnetic force are replaced with energy lines. When a coil is placed within a magnetic field, free electrons, which move in a free direction, take a position (plane of XY or XZ axis) at which their direction is parallel to the energy lines. No position is taken in a direction perpendicular (plane of YZ axis) to the energy lines. Furthermore, electrons can take a position of any angle that rotates centered on an X-axis direction. Fig 18 $ 19
   - For this reason, on the side where the direction of movement of electron waves and energy lines are consistent, there is an attractive force, and on the opposite side, there is a repulsive force. The vectors of attractive and repulsive forces are in the same direction, so the electrons begin to move.
   - At that time, the position of the electrons curves as it moves, trying to tilt in a direction perpendicular to the direction of movement owing to the difference in energy levels that occurs because of the movement of the electrons around the direction of movement (dotted line in Fig. 20).

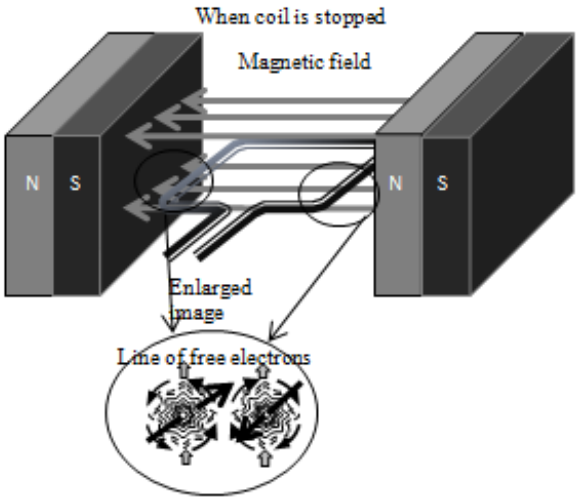

FIG. 18. Electromagnetic force caused by electromagnetic induction.

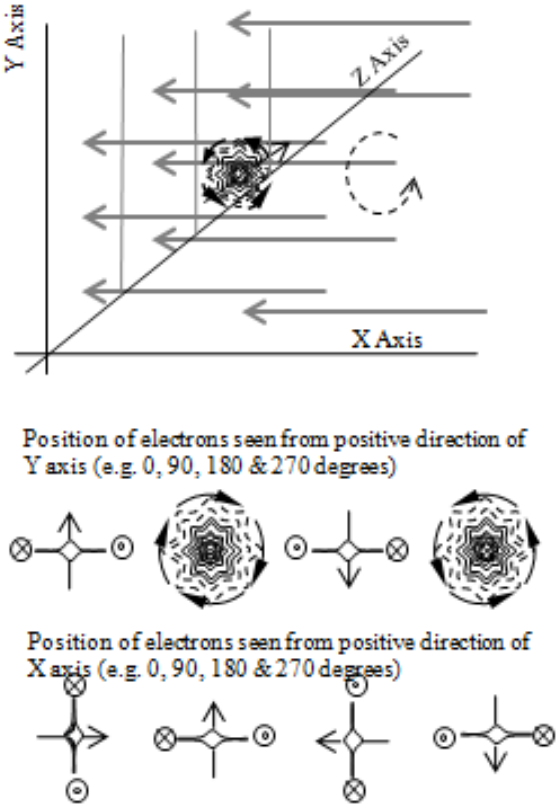

FIG. 19. Position of an electron in coil of motor and electromagnetic.

- The direction of movement of the electron has all angles of 360 degrees around the X axis direction. This is because the orientation of the kinetic energy body can be taken at any inclination of 360 degrees around the X axis direction. However, because there are a countless number of electrons within the coil, if averaged as a whole, the flow of electric current becomes zero. The loci of electrons are drawn as broken line on fig 20. All of them are same length in every direction.

2. When the coil rotates

- When the coil begins to rotate left, the coil heads in a downward direction. Alongside this, a downward-moving vector works on all electrons within the coil.
- As a result, the position and movement of the kinetic energy body is bent in a downward direction. Solid line on Fig. 20.
- Because the orbit of the electrons curves downward, there are few electrons that move toward the front (negative direction of Z axis). Conversely, there are many electrons working inside (positive direction of Z axis). The speed increases again. The loci of electron are drawn as solid line on fig 20. The electrons in the negative direction of Z axis are longer.

As such, the position and movement of electrons are complex, but in the explanation of electromagnetic waves in the next section, if we treat the many properties and phenomena of electrons as a group, we can consider them to be the properties and phenomena of one individual electron, so the model of an individual electron will be used. As figure.20 shows, in one rotation of the coil, the electron has an orientation parallel to the energy line, and the orientation is rotated once around the X axis direction.

D. Principle of electromagnetic waves

Fig 21 explains the occurrence of electromagnetic waves when alternate current flows. When an electron moves, it leaves a trace that curves as it tilts toward a direction perpendicular to the direction of movement. Thus, the inclination of the spreading of rotating electron waves in a perpendicular direction to the direction of movement of the electron is the cause of the occurrence of magnetic field. In the coil of the generator, the positions of electrons rotate in a direction perpendicular to the rotation axis of the waves to match the rotation of the coil. In other words, the spreading of rotating electron waves rotates perpendicularly with the rotation axis of the waves. These traces of wave rotation, similar to imprints, are left in static energy body as magnetic waves. Thus, magnetic waves appear perpendicular to the rotation of electron waves. Moreover, during one turn of the coil, electrons reverse their direction of movement in a reciprocating motion. This reciprocating motion of electrons left in static energy body similar to imprints is electric waves. Thus, electric waves appear in

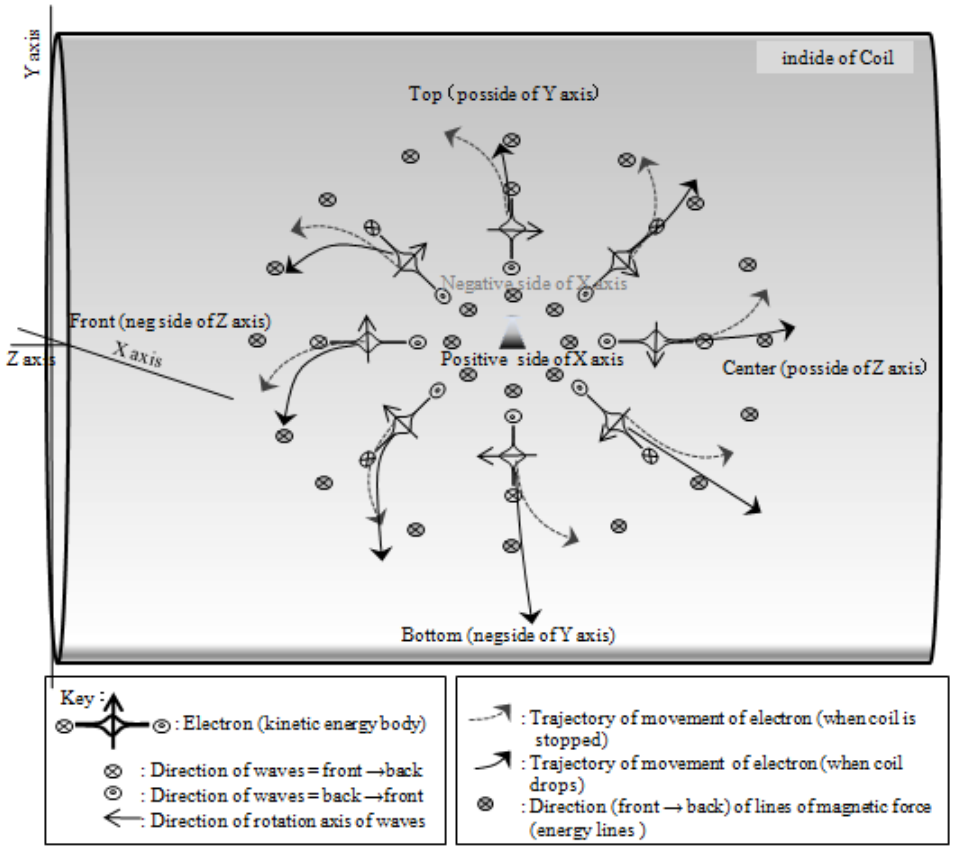

FIG. 20. Position of electrons (kinetic energy body) inside coil which crosses magnetic field' & traces of this movement.

the same direction as electric current (flow of electrons). In other words, electromagnetic waves are the imprints left in static energy body by the reciprocal motion that occurs when the orientation of the electron rotates. This is why electric and magnetic waves appear at right angles, despite the fact they are the same thing.

XI. CONCLUSION

Energy body theory threw a new light on the theory for everything that unifies four fundamental forces, strong interaction, weak interaction, electromagnetic interaction and gravitational interaction. That is, all interactions are caused by the difference of energy level of energy body. In brief of energy body, space and elementary particles are only made of the same substance, energy body. Energy body has the internal structure of energy cell bodies which are far smaller than elementary particles and vibrates by the medium of them. The vibration is energy itself. And it went farther than that what is dark energy and what is the structure of the universe are found. By that, it is suggested that the cause of inflation of space is not Big Bang but the large circulation system of static energy body. After we have been pursuing the ultimate factor of the universe, we found energy body that is microscopic matter and the universal matter at the same time. Namely, the space and elementary particles are made of just only energy body. If there was not energy body, there would be no space and no elementary particles. Also, the model of elementary particles based on energy body theory gave a new interpretation to the double-slit electron interference experiment. More, the thought of energy body theory is almost the same to the one of electromagnetism. Besides, the cause of the occurrence of a magnetic field around an electric current was made clear, even though that is not touched on by electromagnetism. Like these, energy body theory is reconciled with modern physics. On the other hand, it produced new perspective too. For these things, it is known that energy body theory has firm structure. Hereafter, To make numerical formulas of four fundamental forces, on the bases of energy body theory that all interactions are caused by the difference of energy level, is a present subject. Also, this text will be a start point for more research which is the directions of vibration of energy cell bodies and verifications in detail with fundamental particles.

XII. REFERENCE

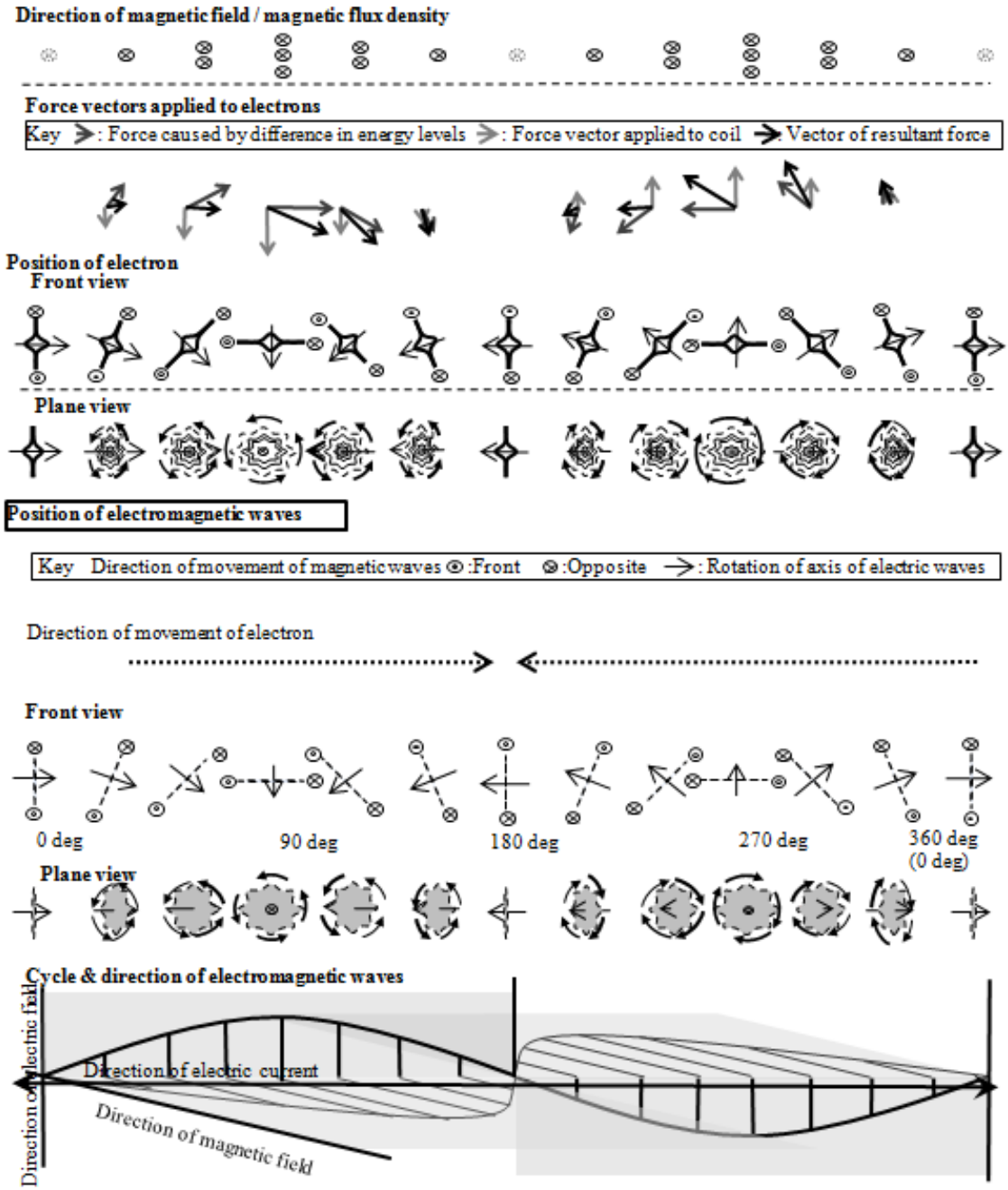

FIG. 21. Movement of electrons & creation of electromagnetic waves in alternating current.

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