

DYNAMICS OF OPEN Π -RAYS (META PHYSICS) AND CLOSED Π -RAYS

HUNG-KUK OH

School of Mechanical and Industrial Engineering,
Ajou University Soowon Korea 442-749

ABSTRACT

The imploded open π -rays comprise of the space and their diameters are distributed from nearly zero to infinite. The change of the potential energy in the open π -ray produces an attraction force between them and it is sensible to the geometric shape factor and its frequency. The equivalent principle of general relativity means that in the wave equation its velocity of the force wave is infinite.

The change of the state in a open π -ray(or any force wave) can be transferred to any sensible open π -ray via space at a finite velocity. Many properties of the light wave can be deduce from the motions of open π -rays.

The nonsteady and steady Schrödinger equations include the dynamics of open π -rays and closed π -rays.

Π -ray is a tool of entity for constructing physics and metaphysics at the same time.

1. OPEN Π -RAYS AND SPACE

The generated open π -rays from the crystallizing π -bonding of atoms and the contracted open π -rays from the electromagnetic wave by gravitational resonance in the space and matter are

absorbed to the nucleons or severely contracted in the space.

The electromagnetic wave is a wave motion of the open π -rays in the space(Fig.1). Ether might be thought as a continuum of the extremely contracted open π -rays in the space. The electron, positron, neutrino and

antineutrino[Ref.1] are the motions of the ether(the extremely contracted open π -rays in the space) as in Fig.2.

Ether is a contracted open π -ray in the space. The space is composed of the ether. The ether(the open π -ray) has the electromagnetic property and the motion of the ether can generate the electromagnetic property of the space. Conclusively we can say that both electromagnetism and etherism have the same meaning in π -ray science.

The bending of the electromagnetic wave and the contraction of the open π -ray in the space means that the space is composed of the ether(the contracted open π -rays).

The diameters of the open π -rays on the space are distributed from nearly zero to infinitely great as in Fig.3 with unboundedness.

2. UNIVERSAL ATTRACTION AND ITS SENSIBILITY

An electro-magnetic wave with an characteristic wave length may take two kinds of open π -rays as in Fig.4, in which each open π -ray has following properties according to linear lever rule

Static

$$mass = 0 \quad (1)$$

$$momentum = \frac{h\nu}{c} \left(1 - \frac{r_0}{r}\right) \quad (2)$$

$$kinetic\ energy = h\nu \left(1 - \frac{r_0}{r}\right) \quad (3)$$

,where h is Plank constant, ν is its frequency, c is its velocity, $2\pi r_0$ is its wave length and r is its radius. Because open π -ray has momentum and energy its wave function may be mathematically described for a quantum mechanical approach.

The potential energy of the open π -ray is

$$V = h\nu \frac{r_0}{r} \quad (4)$$

The universal attraction from the open π -ray will be

$$F_r = h\nu \left(-\frac{r_0}{r^2}\right) = h\nu \left(\frac{r_0}{r}\right) \left(-\frac{1}{r}\right) \quad (5)$$

We see that F_r is a function of ν and $\left(\frac{r_0}{r}\right)$.

The attraction between open π -rays is sensible to the ratio $\left(\frac{r_0}{r}\right)$ and the frequency.

Special relativity states that mass, length and time are the function of the ratio between coordinate velocity and photon's one because the photon's velocity is finite and the velocity of the fundamental entity in the mass is the photon's one.

General relativity says that accelerations have no difference from any reference coordinates.

It means that the velocity of the force ~~mass is 0~~ infinite and then the ratio between coordinate velocity and force wave velocity does not

influence the acceleration mass[Ref.2].

We already know that universal attraction is only function of radial distance from the center of the π -ray. This means that the velocity of the force wave is infinite in the wave equation. We can transfer the force wave into a concentrated area with mind control because open π -ray has its sensibility.

3. BLACK HOLE OF SPACE AND MEMORY OF HISTORY

Any point in the space has every kind of open π -ray as in Fig.3. Any electromagnetic wave is the axial movement of the open π -rays from its equivalent frequency to a infinitely small open π -ray in Fig.3.

Universal attraction is due to the spherically concentric structure of the open π -rays(Fig.5). Because it has open π -rays from any size to infinitely small one we call it a black hole. Any point in the space can be a black hole and then have a static mass. If the spherical concentric structure has a nonsteady center as in any open π -ray, it has no static mass but it have momentum and kinetic energy. If the spherically concentric structure has a steady state center it has static mass but no momentum and no kinetic energy. A open π -ray at any radial position of the spherically concentric structure can have many kinds of frequencies, which means that any π -ray has its memories of the past history.

Any open π -ray can be compacted in the spherically concentric structure without any

change of the frequency, which means that it can bear its memory of the past history. We see that many superhuman read this memories of the past history in the open π -ray of any person.

4. TRANSFER OF OPEN Π -RAY IN SPACE

Any open π -ray can be moved from any point in the space with being exerted by an external impulse as follows

$$F\Delta t = P_2 - P_1 \quad (6)$$

where

F : external force, Δt : time interval

P_2 : final momentum of the open π -ray

P_1 : initial momentum of the open π -ray

The equation can be rewritten as follows

$$F\Delta t = \left\{ \frac{h\nu}{c} \left(1 - \frac{r_0}{r} \right) \right\}_2 - \left\{ \frac{h\nu}{c} \left(1 - \frac{r_0}{r} \right) \right\}_1 \quad (7)$$

The maximum velocity of the open π -ray is the light velocity(c). The velocity of the force wave is infinite however.

The change of the energy state in a open π -ray(or any force wave) can be transferred to any sensible open π -ray far away from there at a infinite velocity. The sensibility comes from the ratio $\left(\frac{r_0}{r} \right)$ and the frequency(ν).

5. MOTIONS OF OPEN π -RAYS IN ELECTROMAGNETIC WAVE (REFLECTION, HOYGEN'S PRINCIPLE, REFRACTION, DIFFERACTIION, INTERFEFENCE AND TOTAL REFLECTION)

A electromagnetic wave is due to the universal attraction of the open π -rays, which absorbs equivalent open π -rays in the forward direction.

Reflection is that the universal attraction can not absorb them in front of the closed π -rays of the mass. Hoygen's principle is that the universal attraction can absorb them in the spherically concentric outward direction. Diffraction is caused from the same thing for Hoygen's principle. Refraction is that the universal attraction absorbs open π -rays of different wave length from the preceding media. Interference is from the meetings between entering open π -rays and exiting ones to the black hole of space when two waves meet each other.

Total reflection is that the universal attraction can not absorb the open π -rays in the next media because of density difference.

6. SCHRÖDINER'S EQUATION FOR THE OPEN π -RAYS

From the time dependent Schrödinger's equation the kinetic energy of the open π -ray is

$$\frac{P^2}{2m} = h\nu \left(1 - \frac{r_0}{r}\right) \quad (8)$$

and also the potential energy is

$$V = h\nu \left(\frac{r_0}{r}\right) \quad (9)$$

The finally derived form of the equation is

$$i \frac{\partial \Psi}{\partial t} = - \frac{c^2}{2\pi\nu \left(1 - \frac{r_0}{r}\right)} \left(\frac{\partial^2 \Psi}{\partial x^2} + \frac{\partial^2 \Psi}{\partial y^2} + \frac{\partial^2 \Psi}{\partial z^2} \right) + 2\pi\nu \left(\frac{r_0}{r}\right) \Psi \quad (10)$$

, where Ψ is a wave function and x , y and z are geometric coordinates and t is time variable, h is Plank constant, ν is the frequency of the open π -ray, r is the radius of the open π -ray and r_0 is from λ (wave length of the open π -ray) = $2\pi r_0$.

7. SCHRÖDINER'S EQUATION FOR THE CLOSED π -RAY

In the case of closed π -ray

$$\begin{aligned} m &= m_0 \text{ (static mass)} \\ P &= 0, \quad K = 0 \\ E = V &= \frac{h_0 c}{2\pi r} \end{aligned} \quad (11)$$

where h_0 is the constant in the case of closed π -ray equivalent to Plank constant.

Steady state Schrödinger equation. is

$$\frac{\partial^2\Psi}{\partial x^2} + \frac{\partial^2\Psi}{\partial y^2} + \frac{\partial^2\Psi}{\partial z^2} + \frac{2m}{\hbar^2}(E - V)\Psi = 0 \quad (12)$$

which is reduced to from equation (11) as follows

$$\frac{\partial^2\Psi}{\partial x^2} + \frac{\partial^2\Psi}{\partial y^2} + \frac{\partial^2\Psi}{\partial z^2} = 0 \quad (13)$$

Time dependent Schrödinger equation for the closed π -ray is derived from the following two equations[Ref.3]

$$\left. \begin{aligned} P^2\Psi &= -\hbar^2 \left(\frac{\partial^2\Psi}{\partial x^2} + \frac{\partial^2\Psi}{\partial y^2} + \frac{\partial^2\Psi}{\partial z^2} \right) \\ i\hbar \frac{\partial\Psi}{\partial t} + V\Psi & \end{aligned} \right\} (14)$$

Because $P = 0$

Finally

$$\left. \begin{aligned} \frac{\partial^2\Psi}{\partial x^2} + \frac{\partial^2\Psi}{\partial y^2} + \frac{\partial^2\Psi}{\partial z^2} &= 0 \\ i\hbar \frac{\partial\Psi}{\partial t} &= \frac{h_0 c}{2\pi r} \Psi \end{aligned} \right\} (15)$$

The wave function Ψ must satisfy two equations in (15) at the same time.

The equation (13) represents the states of the closed π -rays in the steady state neutron and also the equation (15) shows the states of the closed π -rays at the transition from neutron to proton[Ref.4].

8. CONCLUSIONS

- (1) The space is composed of the contracted open π -rays and the diameters of the open π -rays are distributed from nearly zero to infinitely large with unboundedness.
- (2) The attraction between open π -rays is sensible to the ratio $\left(\frac{r_0}{r}\right)$ and the frequency.
- (3) General relativity shows that the wave velocity of the force is infinity in the wave equation.
- (4) The change of the energy state in a open π -ray(or any force wave) can be transferred to any sensible open π -ray far away from there at a infinite velocity.
- (5) The wave characteristics of the light can be explained by the motions of open π -rays
- (6) The motions of open π -rays and closed π -rays can be expressed by Schrödinger equations.

REFERENCES

1. HUNG-KUK OH, "Grand Unified Interaction and Universal Circulation", ISBN 89-86161-06-0-93400, The Ajou University Press, Π -RAY, GRAND UNIFIED INTERACTION AND MAGNETIC ROTATION ENGINE OF OVERUNITY
2. Arthur Beiser, "General Relativity",

- CONCEPTS OF MODERN PHYSICS,
McGraw-Hill, Inc.1995 page 32-36
3. Arthur Beiser, "Schrödinger Equation",
CONCEPTS OF MODERN PHYSICS,
McGraw-Hill, Inc. 1995 page 164-170
4. HUNG-KUK OH, "Some Observations on
the Cavity of Creation for Cold Fusion
and the Generation of Heat", Journal of
Materials Processing Technology
94(1999) 60-65

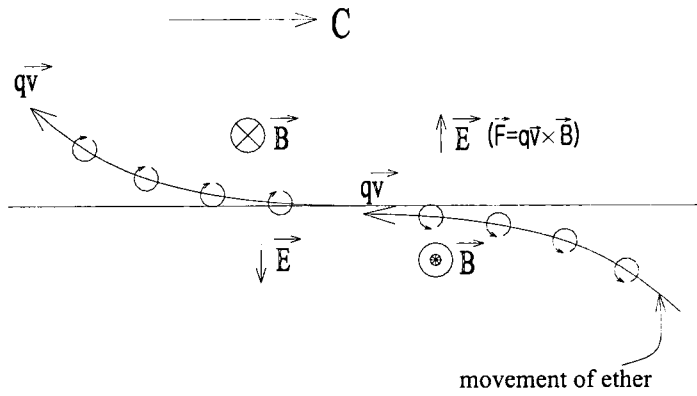


Fig. 1 Movement of the ether and wave propagation

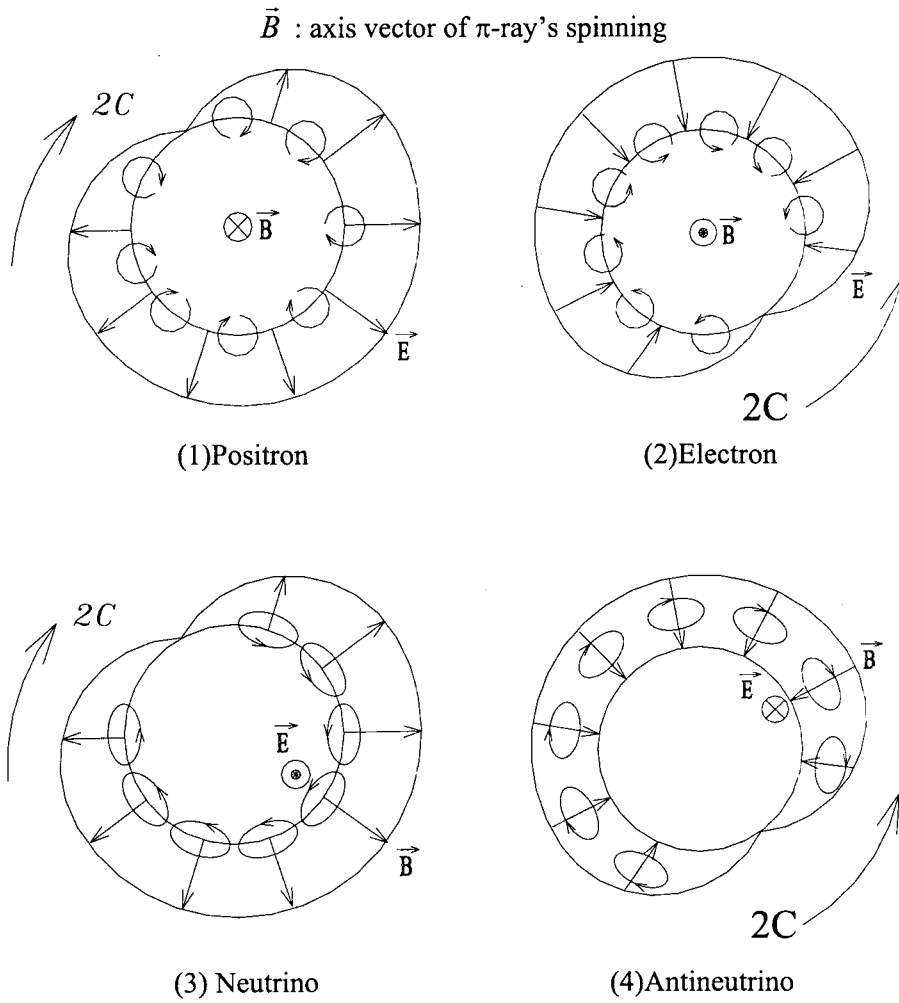


Fig.2 Movement of the ether in the positron, electron, neutrino and antineutrino

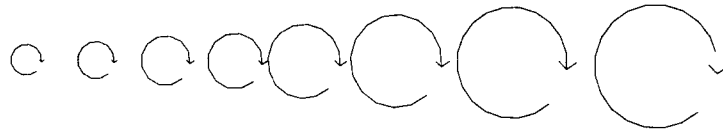


Fig.3 Open π -rays distributed in the space

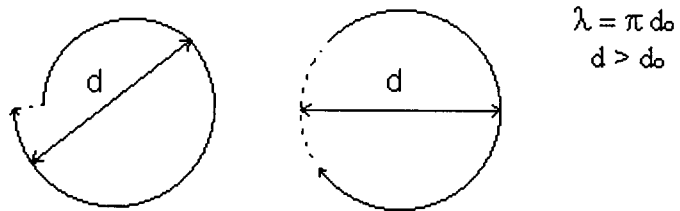


Fig.4. Dimensions of Open Π -Ray

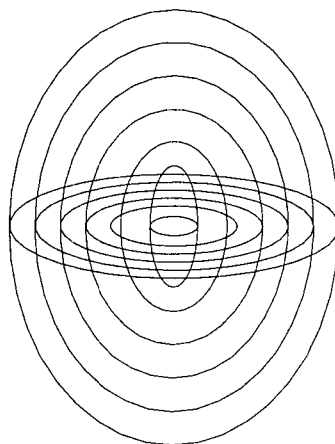


Fig.5 Orbits of Spherically Concentric Open Π -Rays