

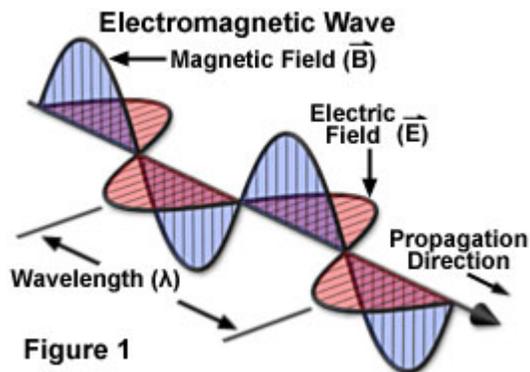
Color charge/Color magnet and CPH

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A photon becomes energy-laden by revolving. We know this because the electromagnetic fields around a "ray of light" are electromagnetic waves not static fields. Relativistically, the electromagnetic field generated by a photon is much stronger than the associated gravitational field. Further it is not clear at the present time whether the gravitational field of an energy-laden photon is static or oscillatory. It is not understood how the photon generates two sets of fields (electromagnetic and gravitational) of so different intensities. [This is an enigma.](http://www.newphysics2000.org/photon.htm) (<http://www.newphysics2000.org/photon.htm>)

Let's take a new look at behavior of electromagnetic wave in a gravitational field, it can help for resolving this enigma. As we know an electromagnetic wave has form of two vertical electricity field and magnetic field. Figure 1



As General Relativity predicted and experiments show, the frequency of photons changes in a gravitational field.

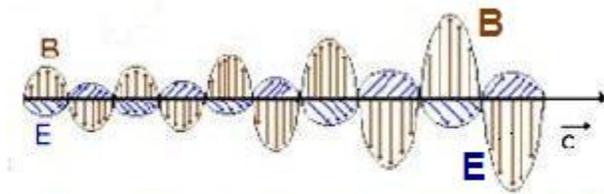
Suppose a photon is falling in a gravitational field, its frequency increases.

What happens in this case?

In totally, gravity force works on photon. According relation:

$$W = \Delta E = \Delta mc^2$$

a part of gravity work converts to electricity energy and other part of gravity work converts to magnetic energy. Figure2



When a photon falls in a gravitational field, the strongly of magnetic field and electricity field increase.

Figure 2

As I mentioned in top of this page, there is no any explain about this phenomena in theoretical physics.

So, I will explain it by according [CPH Theory](http://cph-theory.persianguig/Unified-CPH-Theory-New.pdf). (<http://cph-theory.persianguig/Unified-CPH-Theory-New.pdf>)

Principle of CPH

CPH is a particle with constant mass m and moves with constant speed Vc .

CPH has the momentum of Inertia I . In any interaction between CPH and other particles/forces, the amount of Vc does not change, so;

$\text{grad}Vc=0$ in all inertial frames and any space

A CPH carries linear momentum of $P=mVc$. So, CPH has inertia and also has Momentum Inertia I . When an external force is applied on a CPH, then a part of its Linear momentum ($P=mVc$) converts to angular momentum and CPH takes Spin, so that the amount speed of CPH does not change in any case. When CPH has Spin, it is called GRAVITON. (Figure 3)

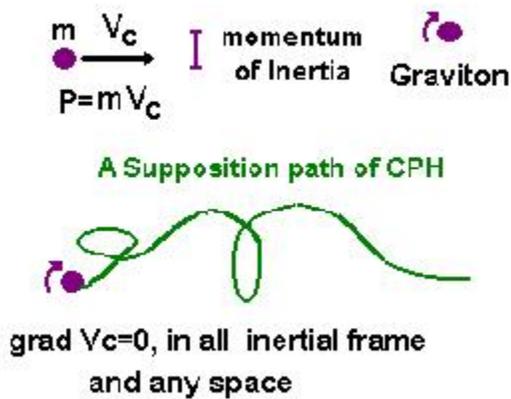


Figure 3

Color charge and color magnet

When a CPH feels other CPH, they take Spin and calls graviton. A graviton behaves like electricity force and other one behaves like magnetic force, and two vertical electricity field and magnetic field do appear. Figure 4.

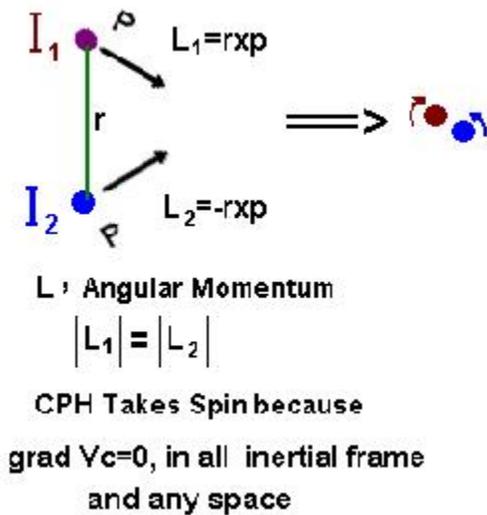


Figure 4

The picture above shows two gravitons with the mass of m , speed of V_c and linear momentum of $P = mV_c$, in distance of r feel each other. They absorb each other and r decreases. But CPH must move with the speed of V_c , so it loses a part of its linear speed and takes Spin. When CPH takes spin, its color charge or color magnet appears. According graviton has spin, so gravitons are color charge or color magnet.

A Photon is formed by a lot of CPH that they have spin and photon has spin too. So, when a photon is traveling with speed of c , CPH has linear speed of c and it has spin itself, and a speed equal to the speed of the photon (according to the structure of photon). In a gravitational field, when a photon shifts to blue, gravitons convert to energy. And when the photon shifts to red, energy converts to graviton. And when energy decays, it produces Matter and Anti-Matter. See Figure 5. In fact ever thing formed of CPH.

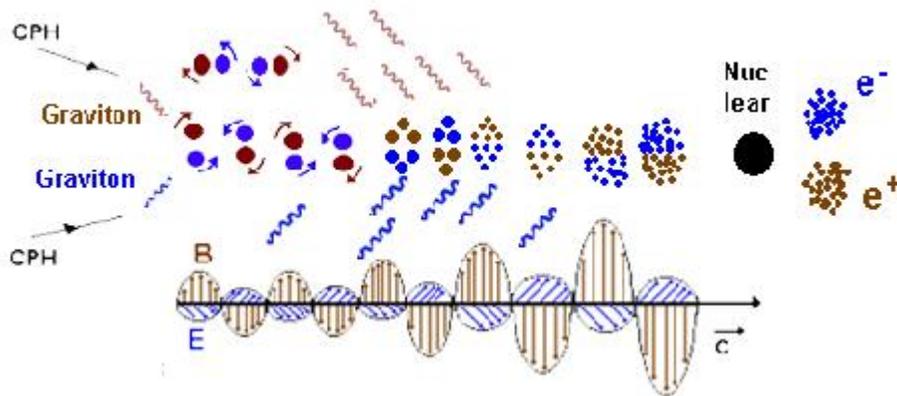


Figure 5

In fact a CPH is a sub-quanta of existence in nature. CPH has mass that is a manifest of matter; its movement is a manifest of energy. CPH has sub-quanta bounding Color charge or Color magnet field around itself.

A CPH feels another CPH, when they contact or they are very near (a distance like Plank Length that is equal 1.6×10^{-35} m). In this case their color charge/color magnets are able act on each other and do combine. Figure 6.

Photons (and all subatomic particles) are formed by many CPH that they have spin; and photon has spin too. So, when a photon is traveling with speed of c , CPH has a linear speed of c and it has itself spin and a speed equal to the speed of the photon (in the structure of photon or other subatomic particles).

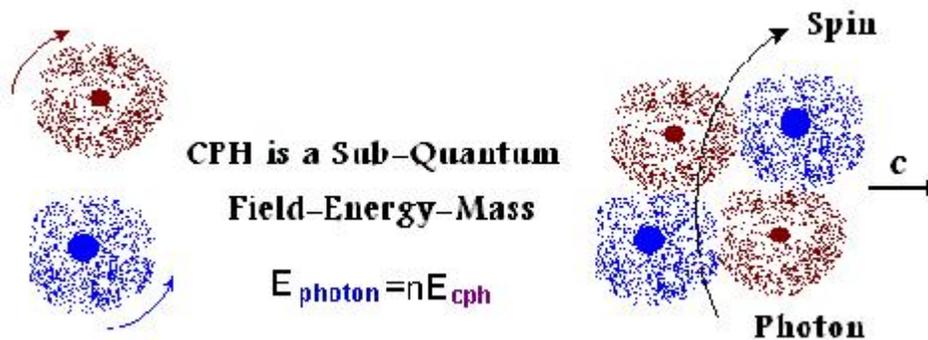


Figure 6

Gravity

According TO CPH Theory, gravity is a currency among objects. For example consider the interaction between the earth and the moon:

Earth has a gravitational field. The gravitational field is formed by gravitons that are moving toward the earth and they are interacting with each other. Suppose the earth is alone and there are no interactions between earth and other bodies in universe. When gravitons reach the earth, the earth absorbs them. Then gravitons obey all forces around them. But the earth is not alone and it has interaction with other bodies. Take a look at earth and moon. There are two fields; one is around the earth and the other one is around the moon. When a graviton reaches the earth, the other one moves toward the moon and pushes the earth toward the moon. (by its color charge or color magnet). Also when a graviton reaches the moon, the other one moves toward the earth and pushes the moon toward the earth. So earth (In fact every thing) is bombarded by gravitons continuously.

Color charge and magnet equations

Suppose two CPH are moving with linear speed of V_c and feel each other. They absorb each other, according $\text{grad}V_c=0$, they take spin, We can write;

$\text{grad}V_c=0 \Rightarrow a_x i + a_y j + a_z k = 0$, that a_x is accelerating on x axes, a_y is accelerating on y axes, a_z is accelerating on z axes and i, j and k are unit vectors.

Suppose it transfers on x axes, but in an electromagnetic wave, v_x is constant and equal c, in an inertia frame. Figure 7

So, its speed changes on y and z axes only, because $a_x=0$ and $a_y+a_z=0$. when $a_y=0$, then a_z is maximum. And when a_y is maximum, then $a_z=0$.

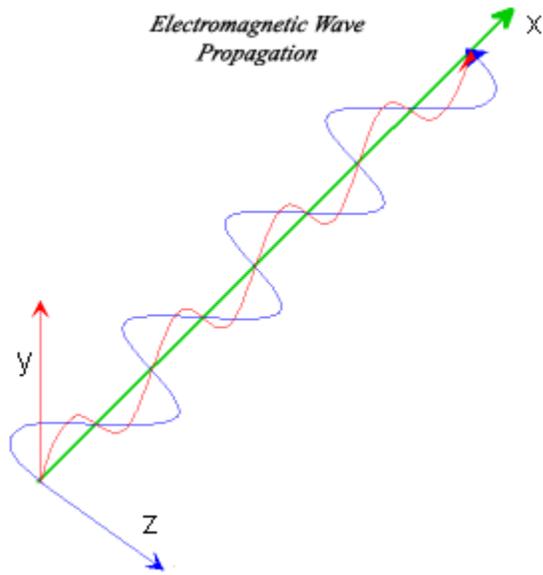


Figure 7

One CPH converts to color charge and we can show its moving with a wave function as;

$E_c = E_{cm} \cos \omega(t - x/c)$, E_c stand of color charge and E_{cm} is its maximum amount of color charge.

And other CPH converts to Color magnet and we can show its moving with a wave function too;

$B_c = B_{cm} \cos \omega(t - x/c)$, B_c stand of color magnet and B_{cm} is its maximum amount of color magnet.

Figure 8

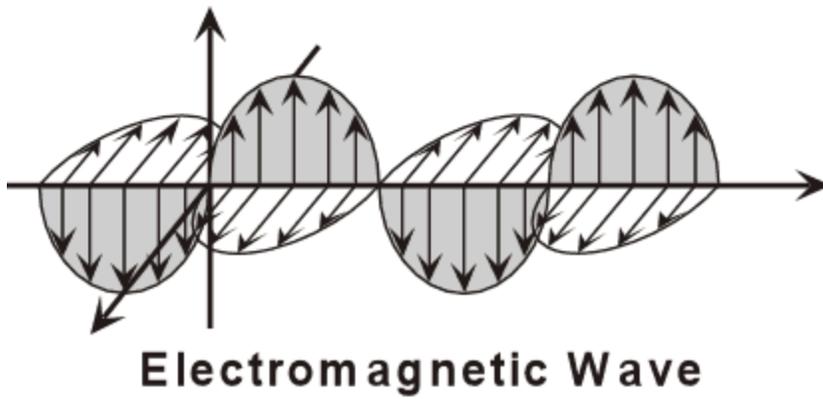
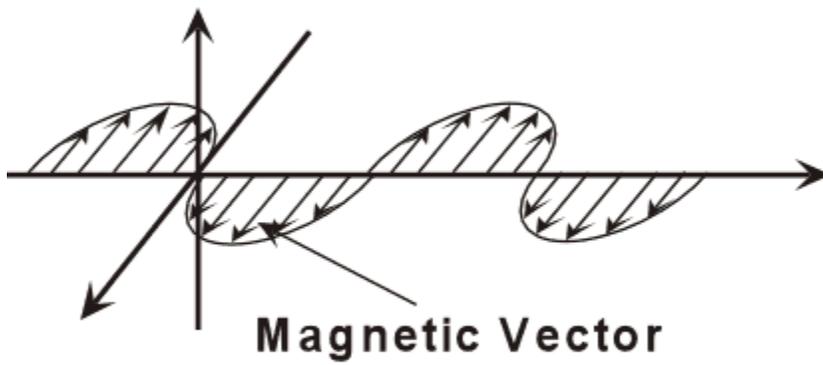
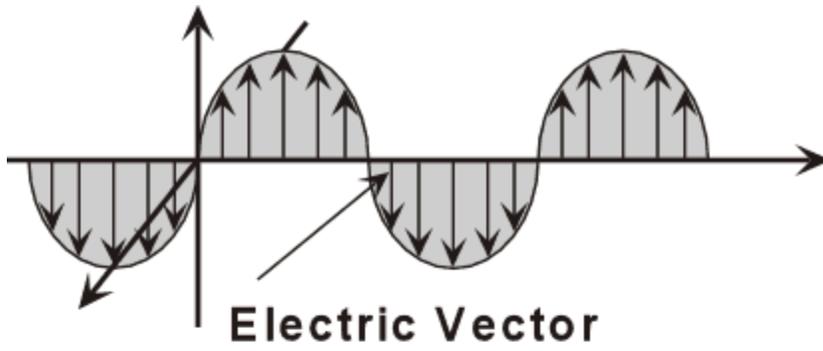


Figure 8

And for $m+n$ CPH, in a choices photon we have

$$E = nE_c m \cos \omega(t - x/c)$$

$$B = mB_c m \cos \omega(t - x/c)$$

When a photon is falling in an gravitational field, n increases. So, the amount of E and B increase too. It means a lot of CPH enter to structure of photon.

How a charge particle emits electromagnetic wave?

As you know when a charge particle oscillates, it emits electromagnetic energy. In usual case, when a particle charge accelerates, it emits electromagnetic energy.

When a force works on an electron (if $W > 0$), a lots of CPH enter in structure of electron. In fact force converts into energy, or bosons convert into energy. Figure9

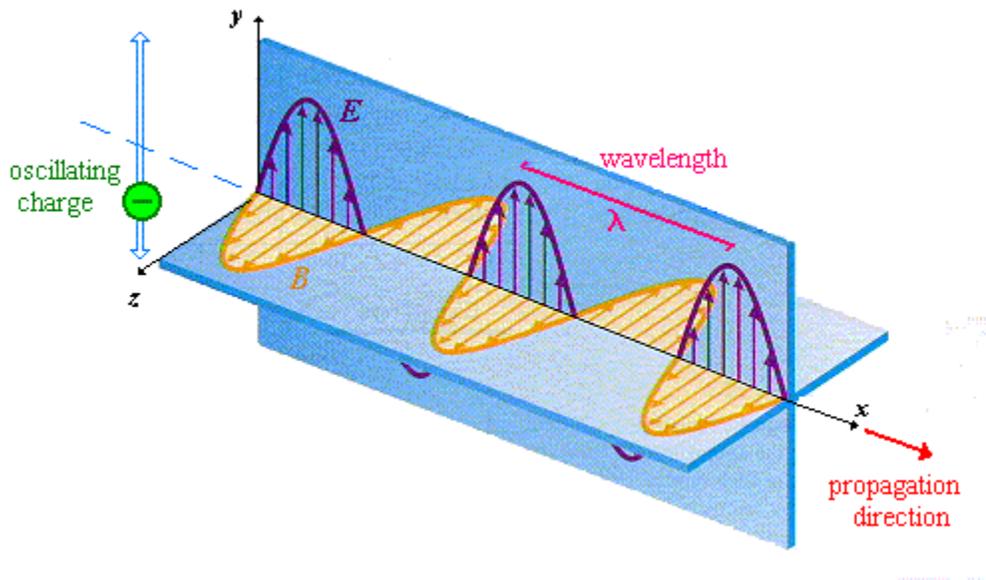


Figure 9

But a charge particle will keep its inherent charge properties. A charge particle (as an electron) is formed of Color Charges only and electromagnetic energy is formed of two different objects, color charge and color magnet. So it emits energy.

Sincerely

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