UNLIMITED SPEED OF LIGHT AND TIME
Macro Time & Micro Time

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Abstract

In bare space, outside the context of matter, speed of the light has much bigger values from "c" and increases in direct proportion to the frequency of the light. But we always measure the speed of light fixed. The reason for this is that all masses have motion in two dimensions. One of these dimensions is the universe and the speed is "c". This speed creates the time. Wavelength of our universe is 299,792.458. km. This wavelength causes a **''tunnel Effect''**. We can not see and measure the movements outside of this wavelength. We can measure the greatest values within this wavelength. This wavelength is our cosmic horizon field. For this reason, the speed of light is always measured fixed. The Universe moves in the fourth dimension with the speed "c" (Time). This motion in two dimensions brings appear two different concept of time. These are Macro Time and Micro Time. One of the components of the speed of light within the material is smaller than‘’c"

Introduction

Refractive laws discovered by Snell in the 16th century as we know it present [1]. Refractive laws have been as the formula for the first time expressed by Descartes [2]. First fair theories about the light have proposed by Newton [3,4] and Huygens (end of 17th century). The basis theory of Huygens’s self-titled ”Huygens principle" creates [5] . In 17th century Ole Roemer [6] first calculated the speed of light close to according to present standards. Reached 19th century, physicists calculate accurately the speed of light had become greatest passion. In this group also had the famous scientist Sir Isaac Newton [3,4]. Foucault, in September 1862, concluded that the light speed was 298.000 km/s. Albert Michelson and Edward Morley in 1887, carried out experiments to prove the ether [7]. At the end of the experiment did not expect. A difference could not be determined despite using very sensitive equipment. The test repeated on several times. Only thing found that speed of light fixed. Scientists’, beginning of the 20th century so far, is it possible to pass the speed of light? Try to find answers to such questions. Although Albert Einstein's [8] says "relativity theory" cannot move. Some basic laws of geometrical optic, was given by Fermat in the 17th century [9]. Known events as refraction and reflection of the light when analyzed, will take us the unknowns of the universe trying understand. Usage of space, the speed of light is always constant. Despite the increased frequency of light measured in the speed of light is always constant. That should be a reason. This caused by movement of our universe. Our universe is moving with a fixed speed and wavelength. We can only observe and measure the movements in this wavelength. Actually, carefully check the need to increase the speed of the light frequency increases. Because we know when we look at formula of speed is ‘’

$\boldsymbol{v}= at''$ Here in micro level ''at'' corresponds to ''$f\lambda$ ''. For permanently measured fixed speed of light, accordingly, we calculate a shorter wavelength with increasing frequency. The speed of light is not constant and ''c'' is the speed of our universe, this way we will use here symbol ''c'' for speed of the universe.

Methods

1. **Refraction of light:**
As an electromagnetic wave passes from one medium to another, it changes speed and bends.

2. **Reflection of light:**
Electromagnetic wave reflects when it hit a surface, changes direction of the electromagnetic wave

3. **Doppler Effect** (Christian Doppler: Austrian physicist who proposed Doppler Efect in 1842) [10].

4.With a computer simulation of light refraction and reflection, easily observable caused by movement in two dimensions. If we note that, when speed of light decreases or increases, consists refraction event. this means that, closeness or moves away from something.

Results

1. All masses have minimum motion in two dimensions.

The main component of motion in two dimensions is "speed of c" and fixed.

2. Speed of light is not fixed in vacuum.

3.Speed of light is direct proportional with the frequency.

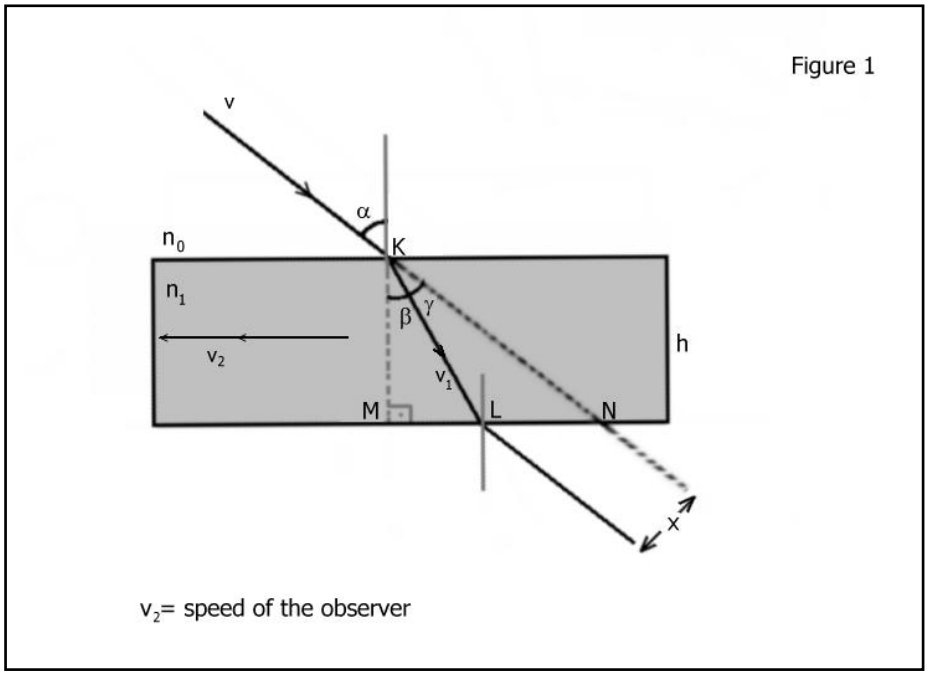
4. Wavelength of light is constant in vacuum.

5. Motion in Two Dimensions, brings appear two different concepts of time.

6. In different frequency systems, the time flows different.

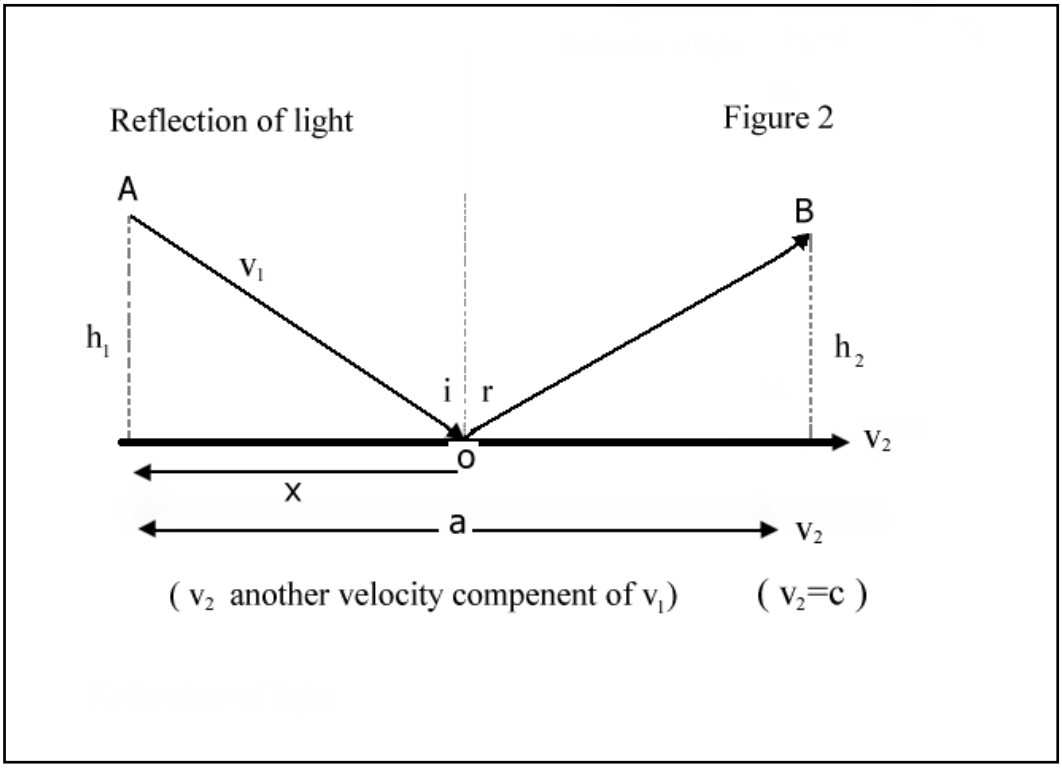
Refraction of light:

Actually, light continues way without refract . However, in the water light up to ''$(\boldsymbol{v}_1-\boldsymbol{v}_2)$t'' is behind of observer. The wavelength of the light entering the water, shortened according to the wavelength in vacuum (such as a compressed spring). Observed by the observer's motion a relative movement. According to $v > v_2$. $(v_2 = c)$. In water do not refracted light only according to the observer, up to $(\Delta v)t$ been remains behind in time. So, speed of the observer is greater than speed of light in the water (7,8). Electromagnetic waves loses speed while passing inside matter. Shorter wavelengths of electromagnetic waves, which move in the material, so the speed per unit time reduces up to $\Delta\lambda$, ($\lambda_1 > \lambda_2$). $v = f\lambda$ distance of light in unit time $\Rightarrow$ speed of the observer's wavelength is greater than the wavelength of light in the water. Frequency of the light does not change in the matter (Figure 1).



Reflection of light:

The light reflects when it hit a surface, changes direction of the light. That is why, Minimum two-dimensional movements of all bodies, the cause of the incident the same way we call reflection (6 , 7). One of the components of incoming light velocity is c" and speed of the other component is v and v>c (Figure 2)



According to figure 2, rays come from point A to a plane mirror and reflect from point O to point B. ($\boldsymbol{v}$ is speed of light and c is speed of observer)

$$|AO| + |OB| = vt \quad and \quad a = ct$$

then

$$vt > ct \quad \Rightarrow \quad v > c$$

The universe, think of it like a river flowing at the speed of c (This movement is three-dimensional spherical wave) and a submarine swimming in the river. We can imagine this movement as the light moving within the material.

1. Motion in Two Dimensions,

Galilean Transformation Equations [11 , 12].

under constant acceleration (x and y) :

x components	*and*	*y components*	
$v_x = v_{0x} + a_x t$		$v_y = v_{0y} + a_y t$	(1)
$x - x_0 = \frac{1}{2}(v_{0x} + vv_x)\, t$		$y - y_0 = \frac{1}{2}(v_{0y} + v_y)\, t$	(2)
$x - x_0 = v_{0x}\, t + \frac{1}{2} a_x t^2$		$y - y_0 = v_{0y}\, t + \frac{1}{2} a_y t^2$	(3)
$v_x^2 = v_{0x}^2 + 2\, ax\, (x - x_0)$		$v_y^2 = v_{0y}^2 + 2\, a_y\, (y - y_0)$	(4)

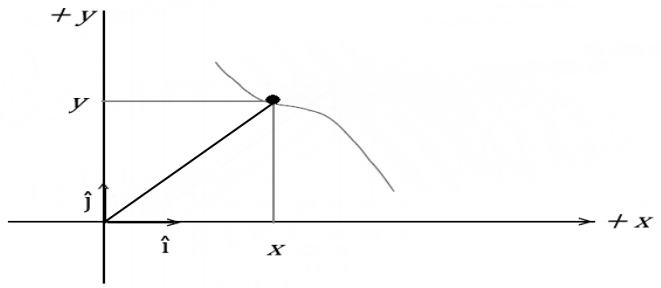
$x - x_0$ = displacement along x-axis (from origin)
a_x = x-component of acceleration
v_x = final x-component of velocity
v_{0x} = initial x-component of velocity
t = time that has passed (from t = 0)

$$\overrightarrow{\Delta r} = (v_{0x} t + \frac{1}{2} a_x t^2)\, \hat{x} + (v_{0y} t + \frac{1}{2} a_y t^2)\, \hat{y} \qquad (5)$$

$$\overrightarrow{v} = (v_{0x} + a_x t)\, \hat{x} + (v_{0y} + a_y t) \qquad (6)$$

As we will see, light has motion in two dimensions and relative movement. (Figure 3)

Figure 3



Motion On Two Dimention

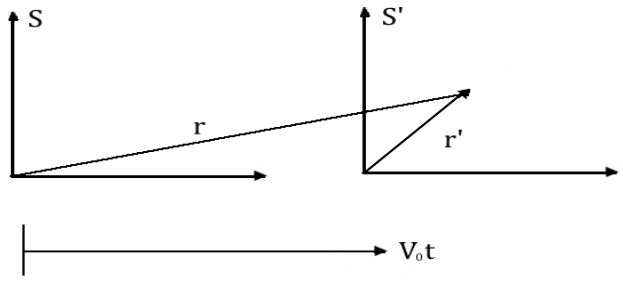
1.a Relative motion

$$r = x\hat{i} + y\hat{j} \tag{7}$$

$$v = v_x\hat{i} + v_y\hat{j} \tag{8}$$

S is static observation framework - S' is moving observation framework. S' observation framework, according to the static frame let accelerating movement with speed v_0. (Figure 4)

Figure 4



Relative Motion

r : Particle's location relative to system S
r ' : Particle's location relative to system S'
$\boldsymbol{v_0}$: Velocity of the reference system S', according to reference system S (Figure 4)

frame of observation relative to S:

$$r = r' + v_o t \tag{9}$$

frame of observation relative to S':

$$r' = r - v_o t \tag{10}$$

Connection between observed speeds of observation frames of moving object:

$$v = \frac{dr'}{dt} = \frac{dr}{dt} - v_0 \tag{11}$$

or

$$v' = v - v_0 \tag{12}$$

$$\vec{r}(t) = \int_0^t \vec{v}(t')dt' + \vec{r}(0). \tag{13}$$

Motion in two dimensions, brings appear two different concept of time. The main component of motion in two dimensions is ''c''. This is the speed of the universe. We can not perceive this speed. This speed creates Macro Time, that is our future. Other component of the speed is that we perceive. This speed creates Micro Time.

Movement in Micro Time and Macro Time:

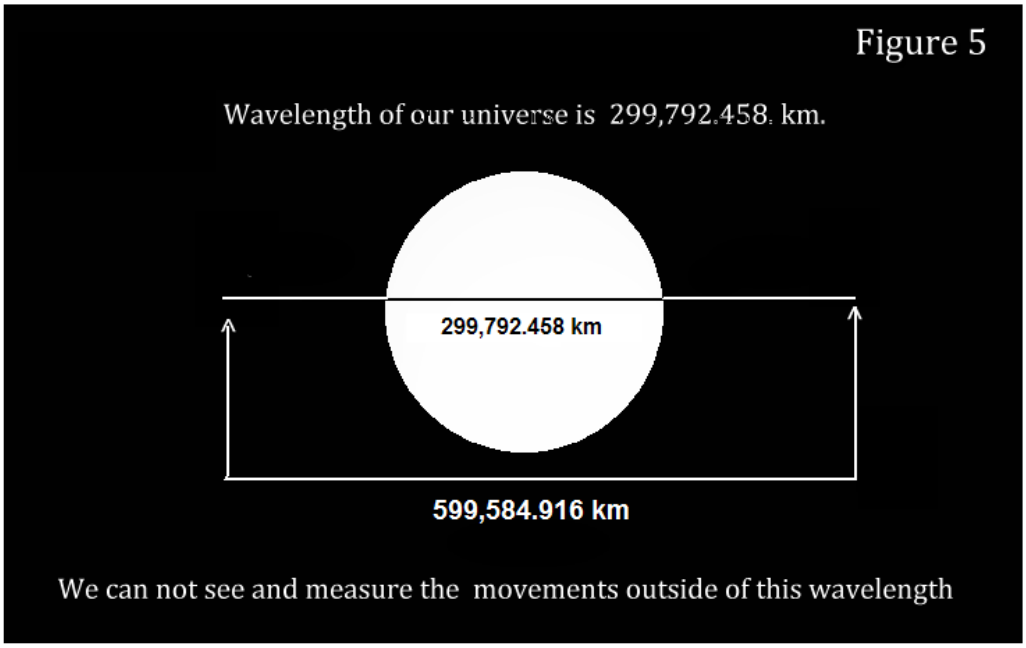
In Micro Time we can use Galilean transformation. At lower speeds, times flows same. Because, the other component (Macro Time) of the motion in two dimensions has same speed for all masses. The object in the same direction but at the same time, moving with the speed of the "c'' (7 , 8).

Doppler Effect:

If the speed of light is independent from the speed of the observer, we would not have been observing the Doppler Effect. If we have observes Doppler Effect , the speed of light is not fixed.

Tunnel Effect:

Wavelength of our universe is 299,792.458. km. This wavelength causes as a ''**tunnel Effect''**. We can not observe and measure the movements outside of this wavelength. We can measure the greatest values within this wavelength. This wavelength is our cosmic horizon field. For this reason, the speed of light is always measured fixed (Figure 5).



Discussion

If we pay attention, the laws of refraction looks like the laws of relative motion. With sine and cosine theories, refraction and relative motion can be explained in the same way. Also this gives us tips how the universe is expanding. By looking from different point, I searched this event. I believe that this subject is very important. I tried to distance the door. I worked Alone, aware that deficiencies. But, to write is better from waiting. This study will give to interpretation of other studies. The important thing is the opening of the door. After entered inside, we will see very different signs waiting for us. First of all things, may be seen simple. First aircraft, first phone, first computer. To date we remember with respect to scientists who have contributed. Now we call unreachable, inter-galactic journey will take place one day.

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