

**New Discovery of Virtual Waves in the World
Or
A Revolution in the Manufacturing of Space Telescopes**

I. Explanation of how virtual waves are created and its negative effects

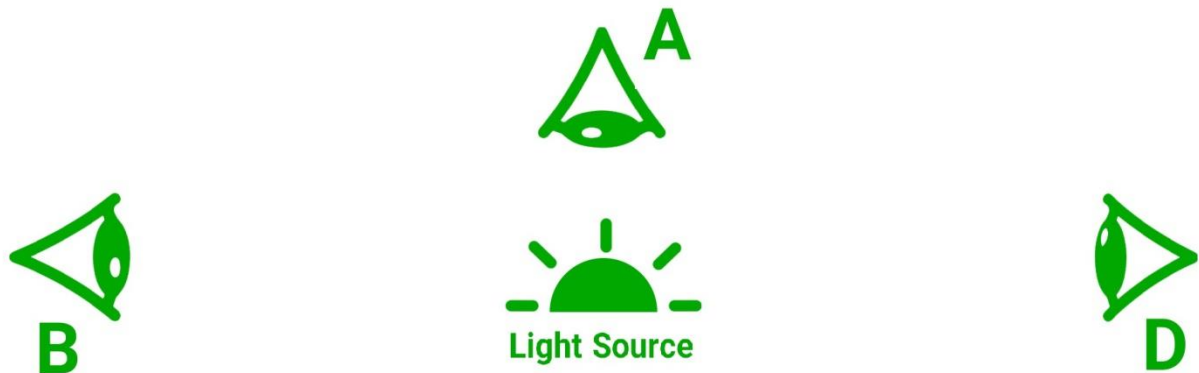
II. Design and manufacturing of low-defect telescopes based on wavelength

I. Explanation of how virtual waves are created and its negative effects

As an introduction, the following experiment can be used to express and explain the Redshift and Blueshift phenomenon.

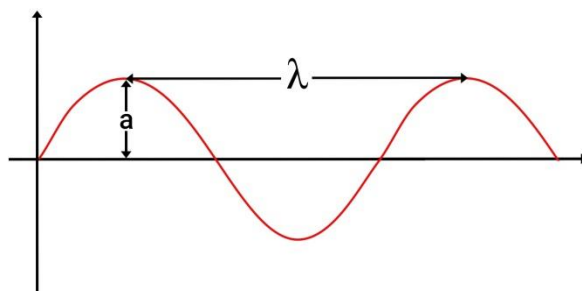
A) Experiment: Using the movement of green light source

First mode: Motionless light source



It is clear that the relation $C = \lambda f$ always holds true, because when the green light source be motionless, all three observers see the source as green. So the following relations can be written for all three observers:

$$\begin{array}{ccc} \text{B} & \text{A} & \text{D} \\ \hline C = \lambda_G f_G & C = \lambda_G f_G & C = \lambda_G f_G \end{array}$$

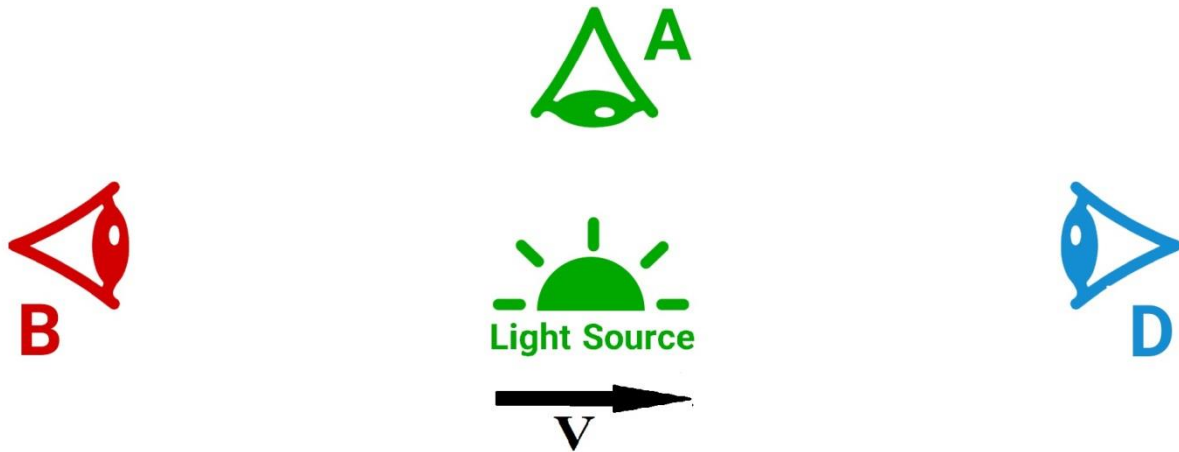


According to the figure, it can be said that an electromagnetic wave has the parameters of wavelength (λ) and amplitude (a), which are particular values for each light. In fact, the certificate of a wave is its wavelength and amplitude. It should be noted that the relation $\lambda \approx 4a$ always holds true. On the other

words, wavelength and amplitude are dependent on each other and the wavelength is a coefficient of the amplitude.

Considering that green light is between blue and red light, the wavelength and amplitude of green light is greater than the wavelength and amplitude of blue light and smaller than red light. It should be noted that wavelength and amplitude are the real and true nature of a light.

Second mode: Moving light source



According to the figure, the light source moves toward observer “D”. It is clear that observer “D” perceives the green light of the source as blue and observer “B” perceives the color of the same light as red. The variable parameter is speed, and as a researcher ignoring the color change is impossible. So, we explain it physically as follows:

The relation $C = \lambda f$ is valid for all observers. Since observer “A” moves along with the green light source, it always perceives the light as green and it will definitely not perceive a change in color. This shows that there has been no change in the nature of green light, because no variable parameter has changed the wavelength and amplitude. So it can be concluded that “ λ ” is the same for all three observers. As a result, whenever the speed is changed, it changes the frequency because the frequency is the number of photons which hit on the surface per unit of time. So it can be written like this:

$$\begin{array}{ccc}
 \text{B} & \text{A} & \text{D} \\
 \hline
 C'' = \lambda_G f'' & C = \lambda_G f_G & C' = \lambda_G f' \\
 C'' = C - V = \lambda_G (f_G - \Delta f) & & C' = C + V = \lambda_G (f_G + \Delta f)
 \end{array}$$

According to the contents, it can be concluded that the change in color is due to the change in speed. If the speed of the source is added to the speed of light, the color of perceived light changes to blue, and if it decreases, the color changes to red, while this light is always green. As a result, it can be said that the nature of green light is real, but observing blue and red lights is virtual. In other words, changing the speed, changes the frequency, and as a result, the observer perceives the frequency higher or lower than the real frequency.

Note: When the speed of an object is up to $0.2 C$ (where C is the speed of light), the Redshift and Blueshift phenomenon is still in the range of visible light. In other words, it can be said that whenever a moving object has a speed of about 0.2 to 0.3 times of the speed of light, we will have Redshift and Blueshift phenomena in the range of visible light, and whenever the speed exceeds these ranges, an object cannot be seen anymore and becomes invisible, and to see it some provisions should be considered. It should also be noted that Redshift and Blueshift phenomenon is a common phenomenon in the universe, like the phenomenon of mirage on Earth. Mirage is a phenomenon that can be seen but does not exist.

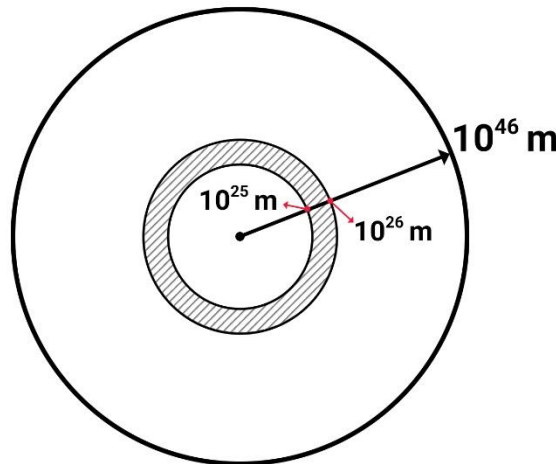
For example, we consider Hubble's law, $V_H=HD$, where " V_H " is the speed, " H " is Hubble's constant, and " D " is the distance, that it can be written:

$$H = \frac{V_H}{D}$$

Considering that the Blueshift and Redshift phenomenon is a simple and natural phenomenon, at high speeds when " V_H " would be close to the speed of light, this causes some changes in our perceived speed compared to the real speed. And due to the constant distance, changes in speed give changes in Hubble's constant. In fact, the change of Hubble's constant, which is about 70 ± 3 , is due to the changes in speed.

B) New explanation for virtual waves

Although the Redshift and Blueshift phenomenon cause deviation in our perceptions, it is a real phenomenon in the universe. It means that this phenomenon has an effect in the universe and it happens and has a real existence. Therefore, in order to find out the truth, we must pay attention to the following notes:



Considering the size of the universe, which has a radius of 10^{46} meters, the possibility of Redshift and Blueshift phenomena is very high. According to Hubble's law, it can be shown:

$$V_H = HD$$

$$V_H = 0.2 C \Rightarrow 0.2 C = 2.2 \times 10^{-18} \times D \Rightarrow D \approx 10^{25} m$$

Therefore, if the distance between the observer and the desired object would be 10^{25} to 10^{26} meters, the phenomenon of Redshift or Blueshift occurs, in which the frequency of visible lights are changed and as a result, their colors are changed. For example, green, blue or red light is seen. But if the

speed exceeds 0.3 times of the speed of light, there is a strong possibility that it cannot be seen in the visible light range. This means that the waves are emitted and reach the observer, but the observer does not perceive it.

If there is a special telescope that is designed for observing x-rays, it collects these specific wave ranges of space and probes them. The waves observed by this telescope, which made errors due to the redshift and blueshift phenomena, can be divided into the following 3 categories:

- 1) If the blueshift phenomenon has affected that wave, the observed waves have been actually in the range of visible light, but we perceive them as x-rays.
- 2) Sometimes the effect of the redshift phenomenon on the real gravity waves causes these waves to be observed in the x-ray range.
- 3) Real x-rays, which are really in the range of x-rays, can be seen in the other range (even infrared waves range). In fact, our x-rays have disappeared and we cannot observe them.

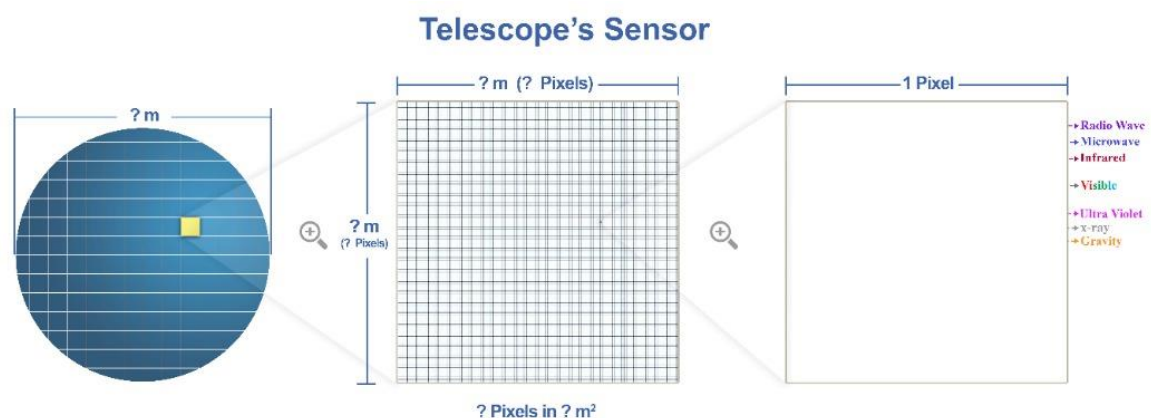
Result: According to these contents, it can be said that most of the waves that we perceive are affected by the Redshift and Blueshift phenomenon and the observers will definitely make an error. This error causes about 70% of the received waves to be different from their reality.

Suggestion: According to the relation “ $C=\lambda f$ ” where “ λ ” is always constant, if telescopes are built based on sensitivity to wavelength, it can be said that the accuracy will increase to 90% and the error will not exceed 10%.

In fact, a revolution should be made in the manufacturing of telescopes so that we can get closer to the real truth

C) Multifunctional receiver sensor (receiver of all electromagnetic waves including: radio , microwave, infrared, visible, ultraviolet, X-ray and gravity)

The receiver sensor should be sensitive to “ λ ” instead of frequency or the same counting the number of beats.



This type of receiver sensor gives us a real image that does not have the error of virtual waves, and also gives us radio waves, micro waves, infrared waves, visible waves, ultraviolet waves, X-rays, gravity waves in each image simultaneously, and there is no need for different telescopes. Therefore, you can get a versatile telescope at a reasonable price.

D) Advantages:

1. This telescope could receive original and real waves

2. The received waves do not include virtual waves or waves that have low shift or high shift due to the phenomenon of Redshift or Blueshift.
3. The accuracy of receipts and calculations increases to about 90% and the error is reduced to less than 10%.
4. Strong and huge telescopes can be built on the ground and the difficulty of sending telescopes into space is reduced.
5. All the waves in the universe can be received with this method without deficiency, and the universe can be observed with only one telescope.
6. The cost of producing telescopes will be reduced to less than 20% of the current cost
7. Maintenance of telescopes becomes convenient, easy and inexpensive due to their availability

II. Design and manufacturing of low-defect telescopes based on wavelength

The research stages of the construction of this telescope have been done. If you want to produce, please send an email

