# **Original Paper**

# Doppler and an End of Expansion

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### Abstract

The concept today is that our universe is in a state of expansion as everything is moving away from us, and away from everywhere. This idea is specifically a conclusion to the finding of the frequency of the waves of light from the source being distorted, theoretically by the motion of the source relative to the observer. The frequency variation is called Doppler which was originally assigned to distorted sound from arriving trains.

This is an analysis of Doppler theory that revels that a redshift of star light beams occur when the stars are "revolving" relative to an observer (such as us on earth). Everything in space does revolve around an observer. Think about this!

### Keywords

expansion, light wave frequency, doppler, revolution, rotation, Wikipedia, external gravity

## 1. Introduction

Astrophysics theory leading to expansion and the big bang is built around the original Doppler explaining that motion away causes frequency shifts. The theory is an extension of the Doppler theory developed in 1832 and 1851 from considering sound frequency changes as a train approaches an observer. Light might also produce a Doppler shift of light frequency as the source approaches an observer causing a redshift. When red shifting of light in galaxies was initially observed by Edwin Hubble in the 1920's, Hubble and associated ultimately proposed the redshift source was caused by motion apart/away. There is logic to that so such a model was adopted. Later on the motion away was noticed to be greater as the star/galaxy was further away. That implies the idea of the motion increasing with distance. Thus the expansion idea came to be and was sold to the Physics world. Over time that led to unnatural ideas including the Big Bang.

We can understand that initial thoughts about redshift implying motion away, logically. Motion away would stretch the wave within the beam as seen by the observer. It is now many years later that the additional Doppler concept found that revolution of sources would also redshift the light to a central observer. Seeking logic, the redshift from revolving sources causing redshift is the more sensible idea. If you have now "thought about that" and contemplated this, logic says light will redshift when the source moves away, but light will also redshift, when the source revolves relative to us. Thus a retaining of distance will also redshift star lights.

Understanding such things improves if you have a full model of the universe from a totally different perspective. There are a number of Physics concepts which have questionable grounds which are more easily seen such as my "Universe is Otherwise—External Gravitation" model of the universe.

#### 2. Wikipedia

Wikipedia is an original and the ultimate "on line encyclopedia" of Physics and other Sciences.

In The Wikipedia I found that Doppler redshift, originally known to be caused by motion toward or away, is also caused by revolving sources. The Wiki analysis is clear enough that one would expect it would have alerted Physics to the alternate redshift causes and led to debating the validity of the idea of expansion. Expansion and the conclusions that have resulted from it are one half of the standard model that leads all of physics. This is the Big Bang portion. The other half is the universe is-that all actions occur based on probability. The two pieces have been included together as they differ from each in understanding gravity.

The proper view should be on that of the destination/detector as that is where the frequency is of concern, i.e., where we see it. The solution for ending expansion lies with Doppler's logical option. This comes from Wikipedia. See under Doppler of light-Relativistic Doppler effect-Wikipedia. I have copied here the three situations that lead to red shift.

Beginning here, what I write will be in purple to segregate my ideas and comments from the specific Wiki writing. The rest in black is directly from Wikipedia.

#### 2.1 Moving Away Gives Redshift

Relativistic Doppler shift for the longitudinal case, with source and receiver moving directly towards or away from each other, is often derived as if it were the classical phenomenon, but modified by the addition of a <u>time dilation</u> term

2.2 Transverse, but not Directly Away Redshift

Receiver sees the source as being at its closest point

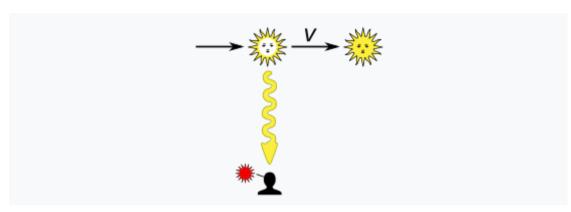


Figure 1. Transverse Doppler Shift for the Scenario Where the Receiver *Sees* the Source as Being at Its Closest Point

This scenario is equivalent to the receiver looking at a direct right angle to the path of the source. The analysis of this scenario is best conducted from the frame of the receiver. Figure 3 shows the receiver being illuminated by light from when the source was closest to the receiver, even though the source has moved on. Because the source's clock is time dilated as measured in the frame of the receiver, and because there is no longitudinal component of its motion, the light from the source, emitted from this closest point, is redshifted with frequency

In the literature, most reports of transverse Doppler shift analyze the effect in terms of the receiver pointed at direct right angles to the path of the source, thus *seeing* the source as being at its closest point and observing a redshift.

2.3 Circular Picture A Is not Relevant, B Is the Key. Note the Red Dots One object in circular motion around the other

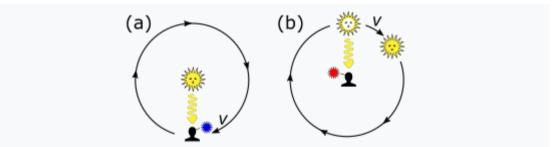


Figure 2. Transverse Doppler Effect for Two Scenarios: (a) Receiver Moving in a Circle around the Source; (b) Source Moving in a Circle around the Receiver

Figure 5 illustrates two variants of this scenario. Both variants can be analyzed using simple time dilation arguments. Figure 5a is essentially equivalent to the scenario described in Figure 2b, and the receiver observes light from the source as being blue shifted by a factor of.

Figure B here is the one that matters as it is what we see. Figure 5b is essentially equivalent to the scenario described in Figure 3, and the light is redshifted.

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#### **3. Important Analysis**

Astronomers know of three sources of <u>redshift/blueshift</u>: Doppler shifts; <u>gravitational redshifts</u> (due to light exiting a gravitational field); and <u>cosmological expansion</u> (where space itself stretches). This article concerns itself only with Doppler shifts.

Note that the third source by Wiki here is "cosmological expansion" which is the fantasy with no conformation beyond the early Doppler. Once the transfer in figure 5 B is understood, the redshift is much more likely to come from the rotation of the sky relative to us as observers. The picture in figure 3 is also redshift that does not signal motion away. The idea of motion away becomes "circular" reasoning and may have never existed.

The second source by Wiki, listed here, is the always ignored gravitational redshift. This cause agrees with the basis of my gravity theory as it overrides the idea of a constant speed c. The exit from a gravitational field results in a slowing of the speed of the light beam and thus thus red shift occurs.

The first source here by Wiki is Doppler shifts. As shown Doppler gives various impressions of the motion of the source that must be resolved. A Doppler redshift can arrive from various relative motions of stars. So we can choose to accept that 'the sky of all-stars' is in circular motion around earth. (or any other central body one chooses). That circular motion adds some redshift to the light sent by all stars.

Everything in space revolves around us over time and we see, detect, and measure that flow. But any motion away in galaxies is not visible to us. The whole concept of expansion is a figment of guessing that redshift proves motion away. It doesn't!

You may ask why revolving stars cause a redshift when we receive their light. The passage of light is never a straight line, neither for the source nor for the observer. Light emitted by a central body, the sun for earth or the earth for the moon must curve to arrive. Fortunately there is the rotation of the center body which helps cause the curve or bend. At the same time its rotation curves gravity beams that push the orbital body in its orbit path.

#### 4. Gravity

I mentioned that the big bang and probability share the standard model because of conflicting views of gravity. My "Universe is Otherwise" model is all about gravity and it is the best explanation of gravity. First of all gravity must exist since it causes motions. To do so it must push! A pull or attraction by itself moves nothing and isn't logical. Then the push must be everywhere, so it is component of the universe and space. Notice that we are trying to define gravity. Space can't be empty as argued between Newton and Einstein models. Thus space is full of EM radiation so radiation is related to gravity. The EM radiation does move as we know, and being something, it can push. Physics has created problems by limiting pressure to moving matter. Separating radiation from matter has removed it from calculations of pressure. They identify radiation as non-particle. Removing the separation is a simple answer to the dual wave or matter conflict. Reality is that anything that moves can cause pressure.

EM radiation and gravity are the components of space. They are **"one**" with multiple attributes. The flow of gravity is everywhere and essentially similar throughout.

From Newton's time gravity has been assumed to be caused by matter. Local gravity is focused at the center of earth. To correct that, consider the less specific statement that the push of gravity is "affected by" matter. That requires defining some more activity. Since gravity and EM radiation flow throughout the universe, therefore they can penetrate and flow through matter. The time of the flow of gravity flow thru matter causes a reduction of the push pressure as well as a modification of the EM radiation in some form. The lesser push of exiting gravity beams interacts with unaffected downward flowing gravity beams and the net is the apparent attraction force.

There are many different perspectives connected with this "pushing" gravity model identified throughout "The Universe is Otherwise". One I will touch on here is the major issue of the **infinite** nature of the universe.

Finity vs infinity are perhaps the principal forms of the universe that have been argued over the centuries. My Otherwise model requires an infinite universe. Radiation flows from everywhere and may carry light from stars. Refer to the Wiki statement above about redshift, <u>gravitational redshifts</u> (due to light exiting a gravitational field). So the stars net gravity affect upon its own light occurs, red shifting the beam, and continues as beams travel. The more distant, the more red shifting that occurs. At some very far distant from the star, its beam will have experienced redshift beyond red and into the microwave region. Thus we detect a microwave background approximately equal from all directions. The universe provides balance of light as the redshift that occurs over long distance travel is offset as beams of all frequency are upshifted to light as beams penetrate bodies.

The big bang finite universe is supported by the church as it provides a beginning as the bible promotes. Any loss of the beginning is not acceptable. But really, the infinite universe allows an infinite God and the gravity of space serves as the Holy Ghost. We then jointly serve as the Son. These analogies are lost in the finite universe.

### 5. Conclusion

For considering the Doppler applied to redshift, the bottom line is that the curve of the beam path from a star to us stretches the wave length and thus reduces the frequency of a star's light just as motion away by the star reduces the frequency of its light.

This alternate Doppler Effect is quite logical within the nature of gravity. Gravity is space throughout and makes up the nature of all space. Attraction is simply a push upon arrival by a flowing pressure. That pressure is the flow of all forms of EM radiation.

That EM radiation which serves as gravity for the transfer of a light beam jointly transfers the light beam. Any rotational motion of any star means you can't draw a straight line to earth for the beam. A beam starts toward earth and arrives after the star has moved some lateral distance relative to earth. Essentially the beam must offset that lateral distance as well as any direct line toward earth. Thus a longer path is assumed. It turns out that the rotation of the star itself can contribute to causing the long path.

If you have accepted the perspectives given here perhaps you can help mankind reach that acceptance.

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