

# RED SHIFT INTO RADIAL VELOCITY 

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## ARTICLE INFO

## Article History:

Received $17^{\text {th }}$ July, 2023
Received in revised form
$29^{\text {th }}$ August, 2023
Accepted $02^{\text {nd }}$ September, 2023
Published online $28^{\text {th }}$ October, 2023

## KeyWords:

Radial, Velocity, Wavelength, Redshift.
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#### Abstract

This Utilizing Hubble's constant will come to a radial velocity many times greater than what the factual shift in wavelength indicates. And evidence has shown that longer waves require a greater expansion for a radial velocity in speed to those of shorter lengths. We therefore have as yet to acquire an insight into the mathematics by which radial velocities are to be calculated.


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Citation: Leonard Van Zanten, 2023. "Red shift into radial velocity". International Journal of Development Research, 13, (10), 63972-63976.

## INTRODUCTION

There is a discrepancy in man's interpretation and calculations of red shifts. And to take those for comparison allow me to explain what the conventional way is whereby to calculate light's velocity by any wavelength thereof. By figure 1 , from zero to near 5 is a wavelength of $4861^{\text {A }}$, to pass by a circumference of $4.84^{\mathrm{A}}$. The total length therefore comes to $4865.84^{\mathrm{A}}$, that it at the speed of $300.000 \mathrm{~km} / \mathrm{sec}$ must pass the nominal $4861^{\mathrm{A}}$ length of the wave. When therefore we divide its full angular length of 4865.84 by its speed at 300.000 $\mathrm{km} / \mathrm{sec}$, and multiply it by the nominal length, it gives us the true and correct velocity of that wave for distance in time.


Figure 1. illustrating a wavelength of $4861^{\text {A }}$ red shifted to $4923^{\mathrm{A}}$, a marginal difference of $\mathbf{6 2}^{\mathbf{A}}$

Below is a quotation in the calculation of the radial velocity of a distant galaxy. Absorption lines of hydrogen, normally measured to be at $4861 \AA$ and $6563 \AA$, are measured in the spectrum of a particular galaxy to be at $4923 \AA$ and $6647 \AA$. The speed of light, c, has a constant value of $300,000 \mathrm{~km} / \mathrm{sec}$. Therefore this galaxy has a red shift of
$\mathrm{z}=[(4923-4861) / 4861]$ and $\mathrm{z}=[(6647-6563) / 6563] \quad \mathrm{z}=[62 /$ 4861] and $\mathrm{z}=[84 / 6563] \mathrm{z}=0.01275$

It thus is moving away from us with a velocity, $v=c * z=300,000$ $\mathrm{km} / \mathrm{sec} * 0.01275=3826 \mathrm{~km} / \mathrm{sec}$ (Ref-2)

And so let us re-calculate this the conventional way, or the proper way rather than Hubble's way, and utilize the waves circumference at $4.84^{\mathrm{A}}$ as a standard for it. For this is absolute that for the velocity of any wave both its length and amplitude must enter into the calculation.

## Laboratory velocities as noted

| $4861+4.84=4865.84$ | $: 300.000 \times 4861=299.701 \mathrm{~km} / \mathrm{sec}$ |
| :--- | :--- |
| $6563+4.84=6567.84$ | $: 300.000 \times 6563=299.779 \mathrm{~km} / \mathrm{sec}$ |

Radial velocities as noted

| $4923+4.84$ | $: 300.000 \times 4923=$ | $(299.705$ minus 299.701 $=$ |
| :--- | :--- | :--- |
| $=4927.84$ | $299.705 \mathrm{~km} / \mathrm{sec}$ | $4 / \mathrm{km} / \mathrm{sec})$ |
| $6647+4.84$ | $: 300.000 \times 6647=$ | $(299.782$ minus $299.778=$ |
| $=6651.84$ | $299.782 \mathrm{~km} / \mathrm{sec}$ | $4 / \mathrm{km} / \mathrm{sec})$ |

And so it shows that we need not take both of the lines of hydrogen to enter into any computations since any one will do, both of them coming to $4 \mathrm{~km} / \mathrm{sec}$. It should be obvious that when anyone wavelength is expanded by a radial velocity - all of them will be expanded equally. For a fact, this galaxy is receding at a velocity of no more than $4-\mathrm{km} / \mathrm{sec}$, while science has it at $3826 \mathrm{~km} / \mathrm{sec}$. No small difference is it?

How therefore can Hubble be so much in error, since we - as we know - in this case we cannot be in error? If anyone insists that we should be using a different amplitude, it is by man's own science to have furnished me with that space velocity at $299.792-\mathrm{km} / \mathrm{s}$, that as such calls for an amplitude of $1.5415^{\mathrm{A}}$. ( $4.84^{\mathrm{A}}$ in circumference) Just look at illustration figure 1 , how that wave was expanded by but a marginal amount, a mere $62^{\mathrm{A}}$, that for its new velocity - for distance in time - cannot come to anything more than $4 \mathrm{~km} / \mathrm{sec}$. So what is wrong with their calculations, and how did they manage to come to such an erroneous conclusion? And yes we do know how, - since 0.01275 into 300.000 comes to $3826-\mathrm{km} / \mathrm{sec}$. The $62^{\mathrm{A}}$ in expansion comes to 1.28 percent in the length of the wave. Did then the $299.701-\mathrm{km} / \mathrm{sec}$ speed of the wave increase by $1.28 \%$ ?

The answer is NO, since velocity is not exclusively linked to just the length of a wave but to its amplitude and the magnetic constant as well. A percentage in expansion of mere angstroms does not warrant to multiply the same directly into kilometers, instead, we are to use proper mathematics with the proper relevant factors. The light as it was traveling away from that galaxy (at the given wavelength) was moving at a clip of $299.701-\mathrm{km} / \mathrm{sec}$. If then the galaxy receded from it by $3826-\mathrm{km} / \mathrm{sec}$, that adds up to $300.027-\mathrm{km} / \mathrm{sec}$, a velocity faster than the constant of all magnetic when it is a straight line. The question thus becomes, how something that moves at a speed of $299.701-\mathrm{km} / \mathrm{sec}$ can tear itself away from a moving object at $3826-$ $\mathrm{km} / \mathrm{sec}$ in the opposite direction? It of course must go by the sum of those velocities - must it not?

If we take a 550 nm wavelength, and expand it to 600 nm , an increase of 11 percent, and we find 11 percent of 300.000 , to be 33.000 , with that added to the $299.736-\mathrm{km} / \mathrm{sec}$ by which the 550 nm wave normally travels, it would come to a velocity at $332.736-\mathrm{km} / \mathrm{sec}$. That mind you is $32.736-\mathrm{km} / \mathrm{sec}$ faster than the constant, while we know no wave can exceed its constant, but that at all times the relative velocity of light must of necessity be less than the constant. I said, of necessity since a wave is a wave, a line into the linear with an angular deviation upon it. I now might congratulate man in setting $300.000-\mathrm{km} / \mathrm{sec}$ as the constant in velocity whereby to calculate light's particulars, but it is yet for man to learn that there are always two velocities of light to reckon with. And how imperative the amplitude of any wave is for its velocity in the calculations thereof, and that amplitude has nothing in common with intensity. (Ref-3) But let us be realistic in how with this wavelet of $4861^{\mathrm{A}}$ that normally travels at $299.701-\mathrm{km} / \mathrm{sec}$, and red shifted to $4923^{\mathrm{A}}$ comes to a new velocity of 299.705.3475$\mathrm{km} / \mathrm{sec}$. And how will that appear when it arrives at mother earth to enter upon the density of the air that we breathe?

According to our classroom science it must come to a compression by an index of 1.0003 . A reduction in velocity down by $90-\mathrm{km} / \mathrm{sec}$, to $299.615-\mathrm{km} / \mathrm{sec}$. And again by the same index a reduction in wavelength down from $4923^{\text {A }}$ to $4921^{\text {A }}$, a blue shift in wavelength of no more than 2 angstroms. This, for all its worth is a marginal amount, and that mind you is to make for $90-\mathrm{km} / \mathrm{sec}$ ?

The real velocity of the new blue shifted wave down to $4921^{\mathrm{A}}$, is $299.705 .2279-\mathrm{km} / \mathrm{s}$. The difference in velocity here does not even amount to a single kilometer, since $0.2279^{\mathrm{A}}$ from $0.3475^{\mathrm{A}}=0.1196^{\mathrm{A}}$ of a kilometer.

How therefore do we say that its velocity slowed by $90-\mathrm{km}$, when its factual reduction in wavelength amounts to not even a single kilometer?

Obviously there is something very wrong with the index when applied to wavelengths. The reason for it lies in the fact that this - is
not_- how the calculations are done, namely to draw a straight line between length and velocity, or as we say, - to rake them over the same comb, since we are omitting the amplitude of the wave, that by all means must enter into the calculations. It is after all a fact that a wave is a wave, and a wave is not a straight line. As therefore there must always be an angular moment in any wave - we are to account for it. A mere 2 Angstrom change cannot be held for $90-\mathrm{km}$, when the wave itself calls for a much greater reduction in length whereby to come to $90-\mathrm{km}$. We cannot go by percentages. Percentage in all respects is a straight line, a two dimensional computation, while all waves DEMAND a three dimensional calculation, a three point factor. Since then the index of air reduced the velocity of that wave to $299.615-\mathrm{km} / \mathrm{sec}$, by what wavelength shall that velocity come to bear? Our index shows it at $4921^{\mathrm{A}}$, but the index is a liar, a liar for length that is, since that velocity of $299.615-\mathrm{km} / \mathrm{s}$ - in utilizing all three of the factors required in the computation - is found with a wavelength of $3775^{\mathrm{A}}$. The true reduction in wavelength thus came to $1148^{\mathrm{A}}$, which for velocity came to its $90-\mathrm{km}$ reduction. Spectral readings should bear this out, how a $4921^{\mathrm{A}}$ wave in entering upon our atmosphere will be reduced to $3775^{\mathrm{A}}$, that then for its radial shift of $1148^{\mathrm{A}}$ comes to $90-\mathrm{km} / \mathrm{sec}$. And if not, either our index for velocity is in error, or we read our spectral shift in error. From our observatories everything that we read must show a blue shift, a negative radial velocity to the tune of $90-\mathrm{km} / \mathrm{sec}$, along with our radial velocity around the sun.

How thus, so anyone should question himself, can we possibly interpret a $62^{\mathrm{A}}$ shift into a $3826-\mathrm{km} / \mathrm{sec}$ radial velocity, when it takes a $1148^{\mathrm{A}}$ shift just to come to $90-\mathrm{km} / \mathrm{sec}$ in radial velocity?

And yes dwell upon that question since the facts are unassailable. Mathematics, so it is said, is the same for everyone. And true as that is, the method for any computation into a three dimensional format cannot be done by a two dimensional yardstick.

To be assured of ourselves that the index of 1.0003 is indeed the right figure it may require a physical reading of the velocities, that of space verses what it will come to in our air, if we have not already done so. And if so, as I believe we have, then that index of retardation pertains to velocity, and velocity only, with no relevance at all to wavelength.

The reason for it should by now be obvious in how radial velocity is never singularly by length, but that it must be incorporated with amplitude. And that amplitude again into circumference, since all waves as they are angularly produced by a rotational inducement, must and can only proceed angularly on a rotational basis.

Whatever is produced three dimensionally must of necessity proceed by a three dimensional concept. When one pulls on a straight line, the entire length will move, while pulling on a sine wave - one is decreasing the angular within it as it is being lengthened. If we wish to keep our waves at no more than length and amplitude - do not then give it a velocity as well, but keep it as a standing wave. If on the other hand we wish to have it moving, adding a third factor to it, let it be computed by these three factors., for at no time shall length alone equal velocity. When $62^{\mathrm{A}}$ came to $4-\mathrm{km}$, it's a division of 15.5 . If it were $4.86^{\mathrm{A}}$ instead, the division is 13.24 and that times 90 comes to 1148. This indicates that in order to have a radial velocity of 4.86$\mathrm{km} / \mathrm{sec}$ there must be a shift of roughly $62^{\mathrm{A}}$, and for $90-\mathrm{km} / \mathrm{sec}$ there must be a shift of $1148^{\mathrm{A}}$. In how many ways now must we explain this for us to see the light? How am I to show that moving away from a stationary point is indeed directly proportional to the speed of that moving object, while moving away from another but moving object in opposite - is the sum of their velocities?

That then by all means is a straight-line calculation, something on a two dimensional basis. But moving away from something that is not a straight line, but of a sine formation - the relevance in velocity comes to its angular moment as well as length. In simple English a three point measuring tape. When pulling on a spring to expand it, the degree of our pull matches the increase in length, but the velocity by which any discrete bundle of energy passes along that spring, is not only by any length in that spring, but by its diameter in the
circumference as well, wherefore in terms of velocity it comes to three factors instead of two. Now let us speak more in general. When a straight line passes by $300.000-\mathrm{km} / \mathrm{sec}$ as the maximum of the magnetic flow of movement, and we put a dent into it so that it must travel by a sine formation, the speed of that sine formation then comes to be proportionally less by the angular moment of that dent we put into it. That $300.000-\mathrm{km} / \mathrm{sec}$ has its relevance to the magnetic spectrum, the speed of the magnetic motion, the speed at which all magnetic lines of movement travel by any straight line of, as well as into the magnetic circle of eight. Here in the latter - I am speaking of that figure eight of force as it passes from south to north all through the earth and back around to start the sequence all over again. If thus the magnetic flow all around the earth does not exceed a velocity of $300.000-\mathrm{km} / \mathrm{sec}$, how shall any of its wave formation within that so well known spectrum thereof - travel any faster? This magnetic force, or movement, that I usually note by 3 M , as the second most fundamental force in nature - does indeed rate a constant in velocity of no more nor less than $300.000-\mathrm{km} / \mathrm{sec}$.

When therefore we agree on this that the figure of 300.000 is the constant, and that such is by a straight line of, it stands to reason that any line with an angular upon it - by consequence thereof - must travel at a decreased velocity. And that this by consequence furnishes us with two velocities, the first being the constant, with the second a speed as measured, or calculated for distance in time, that then as such should be known, and called our Relative Velocity. All such velocities then found or measured in any density are at all times Relative Velocities. But are we convinced? Is my way of teaching well enough by which we may be educated? Or should I emphasize upon the reality of our error, how when a wave is expanded by a marginal amount due to a velocity difference of no more than 4 $\mathrm{km} / \mathrm{sec}$, how that radial velocity can indeed never be more than 4 $\mathrm{km} / \mathrm{sec}$ ?

In how many other ways can I put it? Logic and common sense all in itself should have dawned on us that a mere 4 km change in velocity, cannot possibly be interpreted for a thousand times over. When there is a change in 1000 to 1001 which is but 1 , and never more than 1 , should it not be common practice to then render one's judgment by that 1 ?

Velocity is never relevant to wavelength alone, but to two additional factors, the magnetic constant, and wave's amplitude. It can never be based on a chance of any one without its other relevant factors.

And now for something new for us, - I must pronounce how it is the angular moment of any and all waves that enter in for reality, with the length of a wave as mere gingerbread, a factor of computation rather than reality. Nor therefore, so I must confess - do lengths exist; they are but mathematical entries, in conjunction with which we may establish velocities.

A mouthful is it not? And also very real of which we are to take due notice, with more of this in due detail under "Light's Velocity." (Separate essay) It is the angle in a wave that for its once around the circle (circumference) brings it to length. And it is the degree in the angle of the wave by which it will refract to that rainbow of colors.

It is also the angle in the wave that for its turn around the circle determines its velocity, presenting us with its three factors into any calculus. Frequency then is but for those who are placing dents into natures lines of movement, to make for an oratory, and is likewise born forth mathematically.

If then man stands ready to reprove me, intending to hold onto his theories regarding light that he learned from those before him, and he saw no reason to change since of course the wine that he has been drinking for all his days were excellent to his taste, and why should he drink from a glass of wine furnished by me that has an altogether different taste?

I am nonetheless a kind and generous person wherefore I will indulge man's scientists as it may be. By figure 2, we have that which man is
so fond of, namely his sine wave, and for our example let us take a radio wave of sort.


Figure 2. Typical sine wave
It's crest-to- crest (nominal) measure is 100 cm , with the diameter at 1 cm . And so we can look at that wave in two ways, either two dimensional as man has it, or three-dimensional as I have it. In the two dimensional format - from point X the wave-point goes down to C by a distance of 1 cm , and back up to Y for 1 cm , wherefore the real length, or angular length of that wave is twice the diameter plus the nominal length, a total of 102 cm . Our photon thus must travel a distance of 102 cm in order to advance itself by 100 cm into the linear. Whereas with me in its three dimensional concept the angular will come to 103.14 cm by which it must advance itself by 100 cm . If thus we were to red shift this wave to increase its nominal length by 2 cm , (or 3.14 cm ) it would come to be a straight line.

A straight line then is never a wave is it? Wherefore this sine wave cannot be stretched any further than $2 \%$ at which time the angular shall no longer exist. And the same is true for my wave in its threedimensional concept coming to a maximum of 3.14 cm . (This all in itself proves that waves are never in lengths - since of course they are in fact expanding by greater lengths,)

The velocity then of this sine wave by length and physical diameter comes to $294.117-\mathrm{km} / \mathrm{sec}$, whereas three dimensionally the velocity would come to $290.886-\mathrm{km} / \mathrm{sec}$. And so what is the difference in wave-to-wave when it is simply not possible for a sine formation to travel by a two dimensional concept as I have sufficiently detailed elsewhere? (Ref-3) And now let us take those $4-\mathrm{km} / \mathrm{sec}$ radial velocity that we found to exist between ourselves and that distant galaxy. Shall that galaxy be receding from us, or are we receding from it? For all practical purposes the light that we are receiving from that distant galaxy is from the whole of it, wherefore as such we may consider it from center. We however find ourselves upon the outer arm of a galaxy, and as such, we along with our whole solar system are moving in an orbital track around our galaxy. The red shift at 4$\mathrm{km} / \mathrm{sec}$ then may just be our solar system radial velocity within our own galaxy, while there is no radial movement between our galaxy, and that distant galaxy.

Or if that distant galaxy were coming towards us at a speed of 2$\mathrm{km} / \mathrm{sec}$, blue shifting the wavelengths, and we read them at a redshift of $4-\mathrm{km} / \mathrm{sec}$, then our galactic orbital velocity must be $6-\mathrm{km} / \mathrm{sec}$. If then we can factually establish that our galactic orbital velocity is no more, nor less than $4-\mathrm{km} / \mathrm{sec}$ vectored to the center of our galaxy, and none other, then that distant galaxy is not in any way receding from us.

Or, what if that galaxy is coming towards us at a speed of $11-\mathrm{km} / \mathrm{sec}$, its red shift of $4-\mathrm{km} / \mathrm{sec}$ should then be deducted from our own velocity - since we are moving at a velocity of $15-\mathrm{km} / \mathrm{sec}$ around our sun. But that red shift - as we received it, is in effect a blue shift to the tune of $11-\mathrm{km} / \mathrm{sec}$, and should not be in the red, should it?

Or, how do we even know if that blue shifted wave was from the two hydrogen lines, or from calcium, since a length is a length even as ten dollars is always ten dollars no matter where it came from. We may conclude that the normal $4861^{\text {A }}$ line in hydrogen has now been moved
over to a new length of $5061^{A}$, but what if it were from a $4700^{\text {A }}$ wave reduced to $5061^{\mathrm{A}}$ ?

To me a length is a length computed by the angle at which any wave proceeds. And if the angle that makes for a blue 400 nm wave comes to an expansion whereby it reaches the length of 700 nm , then that blue will now be red in color. For here again it is not in lengths whereby the colors are separated but by their angular deviations, that then 'computes' into lengths.

It appears obvious how our red shift readings are not anywhere near to reality. This however by me is not meant as any evidence that the universe is not expanding, since I do not have any evidence pro nor con. But I do not believe that the universe is expanding, even as I do not believe in black holes, or some other things that man has come up with. It is however imperative that we must at all times consider our own location and velocity in space. If for the example we take a midnight reading in the month of January towards the west horizon, and a distant star indicates a $15-\mathrm{km} / \mathrm{sec}$ radial velocity, and in the month of June we read that same star again but to the eastern horizon, and it shows a zero velocity, we have merely been reading our own velocity around our sun. Have we not?

And so our readings will depend on where upon the earth, and at what time of day, as well as in the year, and to what direction. For during any quarter of the year we may be traveling in one direction with a third quarter over - we will be traveling in an opposite direction. Or if we are taking a reading directly overhead our velocity would be zero. Then there is our atmosphere to be considered for its blue shifting, as well as anything within our equipment to cause compression or expansion. But more than anything we are to understand the nature of the waves that we are working with. It now is said that there are three causes to astronomical red shift. I however know of but one, namely the Doppler red-shift. The others I judge for error and ignorance. One of these is called the Gravitational red shift, for light to overcome a gravitational field. But since the phenomena of light by a prism, and the rainbow, as well as our sun still visible when it is below the horizon - is more than ample evidence to defeat that theory, why should I indulge myself any further in that - when - for a fact light for its movement has no effect nor any relevance to anything gravitational. Then for that Cosmological red shift, do not expect me to believe in fantasies. I was not educated in man's schools of physics, but by the wisest and greatest of all teachers, in whom there is no lie, nor error, nor fantasy, the very Maker of light and of all things. Light as it travels by the velocity, which we obtained as our space velocity, to wit $299.792-\mathrm{km} / \mathrm{sec}$ is of course but a relative velocity, with its magnetic constant at $300.000-\mathrm{km} / \mathrm{sec}$, This velocity in the calculations utilizing the 700 nm length showed that these waves travel by a circumference of 4.84 angstroms. If then we look at the many other waves within the spectrum, it shows that as wavelength increases so their diameter by which they travel in the circular increases. Herewith is a chart based on the multiples of 10 . For as we multiply the wavelengths by ten, it also comes to a multiplication of ten for their circumference in order to come to the same velocity that we established for a space velocity. Nor therefore can these diameters, or circumferences so listed change by any large degree since each of them is relevant to that factor in 10 . If per example we set our space velocity of $299.792-\mathrm{km} / \mathrm{s}$, by the average wavelength within the optic range, the 550 nm wavelength, then our diameter and consequent circumference changes somewhat, or if not our velocity would change.

The chart here shows how by a tenfold increase in wavelength its amplitude likewise increases tenfold.

AWL $=$ Angular Wave Length $* *$ NWL $=$ Nominal Wave Length. ** $\mathrm{Rv}=$ Relative Velocity Basis $=\mathrm{Vc} 300.000$ by c 299.972 , in $\mathrm{km} / \mathrm{sec}$

I now did not bother with frequencies as much as to discover the true amplitude of any wave, knowing that no wave can exceed 300.000$\mathrm{km} / \mathrm{sec}$, that by their angular moments comes to a lesser velocity. To find any frequency all one has to do is - divide length into the constant, into the 300.000 . And to find any relative velocity is to divide nominal length plus circumference into the constant, and that
multiplied by the nominal length again. A radio wave one meter long will travel by almost 5 millimeters in the circumference, which is a diameter equal to 1.54 millimeters. Narrow indeed for a wave of that length, and yet within its tubular circle at any cross section for no more than a millimeter it turns around millions of atoms and molecules. This is not anything like light wherein there are but single atoms within their tubular circle. The length of the wave then into its circumference depends on how and by what it was induced or instigated, which also means at what level or magnitude in nature that was procured. Figure 3 might serve as an illustration. At any time when resonance is procured, or oscillation, (basically an oscillating rotational movement), it is most always upon and into the circular, similar to the armature of an electrical generator turning within a stationary field producing circular movements upon a moving line of force or motion.


Figure 3
Figure 3 illustrates the angular moments of the various waves produced at different diameters at different levels. Light is found on the atomic level, with radio and long waves at the largest diameters. As diameters increase so do the lengths of the wave. There are three factors here, 1: The ever moving linear. 2: The rotating circular. 3: The variance in a pulse implemented upon the two existing movements. If then this is done on the atomic level, it will come to the optic range. If done in a molecular scheme it comes to greater formation, longer in length and greater in circumference. Then there is the overall, or greater-then means, implementing a pulse upon the more overall coordinates that exist by and of the molecules in their greater number of, whereby the angular becomes equally greater for circumference and in lengths. And of course there are the still greater ones like the magnetic coordinate that for its size passing through the earth from one end to the other. In other words, the figure eight of earth's magnetic force. And these come in nearly any size, from the atom on up to that of whole galaxies. Those of the sun pass outwards beyond all of its planets, while our earth with its figure eight of magnetic movement has a good hold onto our moon, so much so that by the elongation of these lines the waters upon the earth rise for a tide. All waves in the spectrum then are rider waves, with only magnetic and electric fixed to their source. Any wave when it is implemented on the atomic level, like C in Figure 3 in a rotation that comes to $2^{\mathrm{A}}$ in diameter, will retain that curvature as it moves forwards. And likewise when it is implemented at a larger circumference (A, and B) it retains that particular rotational diameter. And so it is that we have waves in all diameters and lengths. For I do believe that when we generate a radio wave by a turn that is 4 mm in diameter, that this wave will at all times travel by that dimension unless altered. And if indeed a change in density or radial movement is to alter its diameter - is yet to be established.

If now for the example we apply our three-dimensional calculations upon one of the most distant objects yet found, that was measured by the Lyman-alpha emission line at $1216^{A}$ shifted by $8300^{4}$, their calculations came to a radial velocity of $287.000-\mathrm{km} / \mathrm{sec}$. (Ref 5)

The $1216^{\text {A }}$ wave has a velocity of $298.910-\mathrm{km} / \mathrm{sec}$. Its expansion to $9516^{\mathrm{A}}$ brings it to a velocity of $299.847-\mathrm{km} / \mathrm{sec}$. The increase in velocity of that wave thus comes to $1037-\mathrm{km} / \mathrm{sec}$. That mind you is not anywhere near to 287.000 . It is about 276 times too much.

If thus we add the $287.000-\mathrm{km} / \mathrm{s}$ velocity to the existing $298.910-\mathrm{km} / \mathrm{s}$ velocity we arrive at a radial difference of $585.910-\mathrm{km} / \mathrm{sec}$. That mind you is nearly twice the speed of light, or twice over what could possible exist for any magnetic movement. If then we say that such is possible for two independent objects to be moving away from each other by nearly the speed of light, to wit $287.000-\mathrm{km} / \mathrm{sec}$, we are not thinking very well are we?

For in these cases here we are not speaking of two independent agents, but of something that is generated by, and attempting to get away from a moving object traveling at $287.000-\mathrm{km} / \mathrm{sec}$. Since then 2 plus 2 adds to 4 , the light in order to get away from it at its relative velocity of $298.910-\mathrm{km} / \mathrm{sec}$ - must of sheer necessity take on a velocity of no less than $585.910-\mathrm{km} / \mathrm{sec}$. Does not common sense show how in order for the light to come lose from that object that it must first of all travel that speed of $287.000 \mathrm{~km} / \mathrm{sec}$, at which time the wave is simply standing still in space, with no forward movement at all. Then in order to come to its own velocity in space - it must increase that velocity by $299.910-\mathrm{km} / \mathrm{sec}$, to a total of $585.910-$ $\mathrm{km} / \mathrm{sec}$ just so it may be moving and not at $287.000-\mathrm{km} / \mathrm{sec}$ be standing still in space. For it is a fact that the light at the time it was generated was upon that object riding along with it at the velocity of that object. And in its attempt to get away from that moving object it first had to come to a radial velocity equal to that of the object, at which instant it is still not receding from it. Then it is to assume its normal expanded velocity in order to be receding from it.

Or to put it still another way, a positive radial velocity is the speed at which an object is factually receding from another object. The light then has first of all its own velocity that must be lengthened so as to increase its velocity by the speed of the other object. To lengthen a wave then is consequent with an increase of its velocity. From space into our atmosphere a wave is shortened while is slows down by $90-$ $\mathrm{km} / \mathrm{sec}$, or when leaving into space, it, as it lengthens adds $90-\mathrm{km} / \mathrm{sec}$ to its velocity, wherefore the $1216^{\mathrm{A}}$ wave with its normal velocity at $298.910-\mathrm{km} / \mathrm{sec}$ by an expansion to the tune of $287.000-\mathrm{km} / \mathrm{sec}$, had to be forced into a velocity of $585.910-\mathrm{km} / \mathrm{sec}$. A sine formation at $9516^{\mathrm{A}}$ cannot travel any faster than $299.847-\mathrm{km} / \mathrm{sec}$, only $153-\mathrm{km} / \mathrm{sec}$ short of coming to the velocity of constant, or as we might say 153$\mathrm{km} / \mathrm{sec}$ short of becoming a straight line. Since thus that wavelength of $1216^{\mathrm{A}}$ was acted upon to be no more than 153 kilometers away from becoming a straight line, to come to $300.000-\mathrm{km} / \mathrm{sec}$, how is that to be found at some $586.000-\mathrm{km} / \mathrm{sec}$ ?

On a highway a car is heading east at $50-\mathrm{mph}$, and one heading west at $50-\mathrm{mph}$. What is the radial velocity between the two if not $100-$ mph? And by whom is that to be read? Then there is light heading towards earth at nearly $300.000-\mathrm{km} / \mathrm{s}$, and a galaxy heading away from earth at $287.000-\mathrm{km} / \mathrm{s}$. What is the radial velocity? And by whom is that to be read?

With the cars it was between them, but that galaxy is not coming to pay us a visit to inform us of its speed, wherefore it is only to be found upon the light. Need I say more?

Logical reasoning alone should have turned on a red warning light that something is very wrong here. Since then we did proceed with these errors, it is of no glory to science as a whole that it had to wait for me to correct it. In the above now, where a wave is able to be expanded by any length in its diameter till it reaches the straight line at 300.000 , I will be speaking of the transmission of light illustrated on separate essay entitled Light's Velocity.

## CONCLUSION

Will we now conclude that Edwin Hubble is right, or that my mathematics as well as insights are wrong? If I am wrong than our magnetic constant is also wrong, and we are all wrong in using that constant. Edwin Hubble however is no match for Him who taught me, and light as all waves will never be found to travel in excess of $300.000 \mathrm{~km} / \mathrm{sec}$. (This is the first part of the complete essay with the second part entitled; Light's Velocity, providing further evidence)

## REFERENCES

Ref 1: (http://www.space.com/25179-hubble-constant.html)
Ref 2: (http://astro.wku.edu/astr106/Hubble_intro.html)
Ref 3: leonardswebpage.info Page 79, "Frequency."
Ref 4: leonardswebpage.info Page 79, " Huygens Principle."
Ref 5: http://spiff.rit.edu/classes/phys240/lectures/expand/ expand.html

