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THE AVERAGE SPEED of LIGHT .00024

(REDSHIFT "RULER" REDUCED?)

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Introduction to:

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THE AVERAGE SPEED OF LIGHT.

How do we know what the stars are made of? Astronomers use a prism to make light from a star into a little rainbow ribbon. Dark lines called "absorption lines" are seen in this rainbow ribbon.

These absorption lines are caused by cooler gases around the star absorbing some of the light from the star. Different gases have different "finger-prints" of absorption lines. No two finger-prints are alike! Astronomers can tell the type of gas from these finger-prints.

But there is something different in the finger-prints of the same gases from more-distant stars! The further the starlight has travelled, the more the finger-print of each gas moves towards the red end of the rainbow ribbon. This is called "redshift".

Astronomers know that light from more-distant stars is longer in wavelength. When the wavelength gets longer, we can't see so far into the red end of the rainbow ribbon. So the absorption lines move over. But instead of a smooth increase in redshift, the redshift is "quantized". It moves in jumps or steps (quantii) of .00024 of a wavelength!

Longer wavelength is taken to mean "expanding universe". But why the jumps of .00024? Does slowing light speed (cdk for short) explain them? Because, "cdk-lollo modelling" gives the AVERAGE SPEED OF LIGHT as .00024 BILLION times faster than light speed today!

".00024"

This little number is a problem for conventional astronomy in two ways.

Firstly, that it cannot be <u>explained</u> by conventional astronomy. There is no reason available for the quantization of redshift in starlight.

Secondly, that cdk-lollo modelling <u>does</u> explain the value .00024, gives a reason for the quantization, and assigns a distance unit between quantii which FITS WITH OBSERVATIONS. Specifically, a distance unit which agrees with the observed redshift steps of .00024 <u>within</u> individual galaxies.

That is, stars <u>further within</u> a galaxy show greater quantized redshift than <u>nearer</u> stars within that galaxy.

This is a problem for conventional astronomy, because one Megaparsec, (3.26 million light - years), is the conventional distance between quantii.

Now, the first published observations of quantized redshifts were between different stars in the same galaxies. One of the galaxies observed, Andromeda, is only 60kpc across. (About 200,000 light-years.) Obviously, one Megaparsec per .00024 step is too great a distance for any quantization <u>at all</u> to be observed within Andromeda!

Post-1970's discussions on quantized redshifts have not involved <u>internal</u> redshifts within galaxies. Rather, quantized differences between <u>different galaxies</u> have been discussed. THIS IS A TELLING POINT OF THE WEAKNESS OF THE ONE MEGAPARSEC DISTANCE!

Before we look at the cdk-lollo distance between quantized redshifts, let us look at the 72km/sec which is calculated from each .00024 step.

The .00024 is the small <u>quantized</u> increase in wavelength, conventionally thought to be from the <u>stretching</u> of the light wave by Doppler effect or similar process. This is thought to represent a "recession velocity", and is calculated thus:

$$\frac{.00024 \text{ of a wave}}{1 \text{ wave}} \times 3 \times 10^5 \text{ km/sec}$$

$$= 72 \text{ km/sec.}$$

Now, at the conventional "limits of observation", 13.7×10^9 light-years out, the "recession velocity" is thought to be at light -speed. (Nearly!)

So, the <u>distance</u> between each quantized step of 72km/sec is calculated as:

$$\frac{72 \text{ km/sec}}{3 \times 10^5 \text{ km/sec}} \times 13.7 \times 10^9 \text{ light-years}$$

$$\doteq 3.26 \times 10^6 \text{ light-years}$$

$$= 1 \text{ Megaparsec.}$$

CDK- LOLLO MODELLING, however, assigns, on average, only 1.5 light-years between quantized redshifts.

Lollo modelling shows that the maximum travel-distance achieved by a "light-particle" since cdk began, is 1.5×10^9 light-years. (See "The Age of Light" and "The Shape of the Universe" at:

www.lollo.org.nz)

Lollo modelling also shows that cdk began some 6224 years ago.

Thus, the AVERAGE SPEED OF LIGHT is:

$$d/t = \frac{1.5 \times 10^9 \text{ light-years}}{6224 \text{ years}}$$

$$= .00024 \times 10^9 \text{ light-years/year}$$

Note that the average speed of light gives a "compression number" of.00024. This does not indicate a velocity as such, but a "crowding" of wavelengths into an "incompressible unit".

The little increase in wavelength adds up step-by-step, depending on how much the light has decelerated. That is, how far it has travelled!

THE UNIVERSE IS NOT SHOWN TO BE EXPANDING!

Note that there are 10^9 of the little .00024's. And that there are 1.5×10^9 light-years of travel, maximum, since cdk began. Therefore, each little .00024 has 1.5 light-years (average?) between.

That is:

1.5×10^9 light-years / $.00024 \times 10^9$

OR 1.5 light-years / .00024

The 1.5 light-years distance (average?) per .00024 step ALLOWS FOR QUANTIZATION WITHIN GALAXIES.

Further, and finally;
the speed of light today is:

ONE light -year / year.

So the ratio of average speed to today's speed is:

$.00024 \times 10^9$ l.y./y : 1 l.y./y

OR $.00024 \times 10^9 \times 3 \times 10^5$ km/sec

: 3×10^5 km/sec

OR 72×10^9 km/sec : 3×10^5 km/sec

So that each .00024 represents a 72 km/sec "lump".
BOTH THE CHANGE IN WAVELENGTH OF .00024, AND THE 72 km/sec, ARE DERIVED FROM CDK CALCULATIONS.

And the 72km/sec

1.5 light-years, fits with observations of quantized starlight from within galaxies.