

This document refers to <http://henk-reints.nl/astro/HR-on-the-universe.php>

Erratum

On page 21 the electron's *Compton wavelenth* is being compared to its *classical radius*, but on pp. 19+20 it was considered a *diameter*. I should of course also have done this on p.21, so their *ratio* would not be $\frac{2\pi}{\alpha} = 861$, but half of it, i.e. 430. This would increase *linear atomic voidness* (based on the *Compton wavelength*) from 21.6 to 43 and the *volumetric voidness* to $43^3 \approx 80\,000$. Both values are of course intra-atomic.

Cosmological redshift

Another argument against cosmological *redshift* is as follows. A photon always travels at the *speed of light*, so it "sees" the space it traverses passing by at this very same *velocity*. The travelled *distance* is then Lorentz contracted to:

$$d = d_0 \cdot \sqrt{1 - \frac{(v = c)^2}{c^2}} = 0.000\,000\,000\,000\,000\,000\,000\,000\,000 \dots \text{ (ad inf.)}$$

so from the photon's perspective it travels a *distance* that is as zero as zero can be. The *time* required for that journey then equals nought as well:

$$t = \frac{d}{c} = 0.000\,000\,000\,000\,000\,000\,000\,000\,000 \dots \text{ (ad inf.)}$$

In fact, a photon is nothing more than an *energy* transfer, and from its own perspective this takes no *time* at all, so it's instantaneous, and it occurs over no *distance* at all (so apart from its *energy*, a photon is a physical nought). Then the *energy* absorbed by the destination cannot differ from the *energy* emitted by the source, and neither can the photon's *frequency* according to $E = hv$. Where would any *energy* difference go to or come from? So a photon cannot ever redshift once emitted.

Therefore *cosmological (expansional) redshift* cannot and does not exist, full stop.

This leaves *relativistic Doppler redshift* only, which can only take place at the very moment of emission, since the photon does not yet exist before emission and does not change after emission. In fact *relativistic Doppler redshift* is just the relativistic difference between the two points of view from emitter and receptor.

The above implies the corresponding *wavelength* does also not change during the photon's journey, be there extension/expansion of the universe or not. And, as explained in the main document, *wavelength* is NOT a property of the photon, but it is an *equiphase distance* of the wave, which itself is just an emerging phenomenon when an oscillation (having a *frequency*) and a medium (having a *wave velocity*) come together.

Gravitation

In a 3-spherical universe gravitation would be like a 3-dimensional *surface tension*.

Multiverse

Although adhering to Newton's "hypotheses non fingo" as ever, I'll do some philosophising once again. First of all, the "inside out" idea I described in the final paragraphs seems on second thoughts not so very plausible. But given the fact that the universe is 3-spherical, I can now think of no other concept than a multiverse consisting of concentric universes. Each would be an infinitesimally thin 3-sphere shell

and all would grow at the very same *hyperradial velocity* of c/π , thus making the *speed of light* identical throughout this concentric multiverse and then it seems plausible to me that *all* laws of nature are multiversal. The entire concentric multiverse would then be continuously expanding at the ever constant *velocity* of c/π and each universe would evolve from a big bang at $t = 0$ to a big rip for $t \rightarrow \infty$. This concentric multiverse would have one very special point: its very centre, where a continuous genesis of universes would take place. It could get its input only via yet another dimension, in which this "paradise" could be one end of a dipole. The other end could then be the source of a similar antimultiverse consisting of antiuniverses containing antimatter. Hey, did I solve the matter/antimatter problem? This dipole would require no more input than some inward *energy* flow (via yet another dimension which to me does not need to be spatial).

Maybe the result of each universe's big rip could via some dimension flow back into the "paradise" dipole, which then in fact would be a quadrupole, making the whole multiverse-antimultiverse pair an independent closed entity. I'll call it a *Henkyverse*... (Dutch: Henkiversum). Then my next thought is that there must be infinitely many of those. The *Hyperhenkyverse*.



<https://www.worthpoint.com/worthopedia/orginal-art-absrtact-painting-violin-1864200616>

"Violin music notes" by Khanh Ha

Liefde maakt niet blind. Je verdomt 't gewoon om te kijken.

Love doesn't make blind. You just stubbornly refuse to look.

Opoë Toos Heerkens - Verweij