

To all astronomers/cosmologists in the world,

Who am I? Please see <http://henk-reints.nl/HR-About-me.pdf>. How do I come to my conclusions? Just like Albert Einstein I stick to what Newton and Lavoisier prescribed. Ex obfervatis phænomenis deduco & hypotheses non fingo. I deduce from observed phenomena and I contrive no concoctions: <http://henk-reints.nl/astro/HR-Newton-Regulae-Philosophandi-Scholium-Generale.pdf>.

There is a particularly strong *confirmation bias* in cosmology. One tries to prove fictions and, with blinders to beyond the horizon, cosmology has gone completely astray in many ways. The James Webb Space Telescope makes observations that no one understands, such as very large distant galaxies. It is called a crisis in cosmology.

**1)** Dark matter is a fiction. It is a *brainchild* based upon observed galaxy rotation not in agreement with a theoretical profile named Keplerian decline. The latter is however a *totally wrong* expectation! The shell theorem has been applied to a nearly flat disk, whilst it only applies to objects with a **SPHERICAL** symmetry. That is not to be called naive, since a child immediately understands it is completely invalid. This is not just a rather silly mistake, it is a capital blunder of the highest rank! A very serious and utterly blameworthy error, an extreme INEPTITUDE! Worthless!

The credibility of *all* science, even outside of cosmology, is seriously damaged by such sloppy mess. It's a disgrace! My dear cosmologists, *you* are the ones to blame and because of this screeching blunder I have lost all faith in your whole gamut of publications. SHAME ON YOU! You should be pilloried.

Please read <http://henk-reints.nl/astro/HR-Dark-matter-slideshow.pdf> and see how a correctly calculated theoretical profile nicely agrees with observed galaxy rotation without any need of dark matter or whatever concoction.

**2)** The size of the universe, the distance to galaxies and the corresponding light travel time are determined in standard cosmology by means of a monstrous formula created by Mr. Peebles (Nobel Prize 2019, congratulations!). However, this formula is based on cosmological redshift (i.e. Eq. 7 in <https://arxiv.org/pdf/astro-ph/0207347.pdf>) and that is an undetectable invention. It is similar to phlogiston. Not deduced from any ascertained truth (read: observed phenomenon = fact) according to the rules of logic, in other words: fabricated.

Newton and Lavoisier (who debunked phlogiston) wrote very clearly that science (which actually is the Latin word *scientia*, meaning **KNOW**ledge) can **just and only** be gathered via deduction from certainties = observed phenomena = facts. Einstein did so. *That* was his strength, he was not essentially more intelligent than whatever academically trained physicist. A paleontologist remains silent if he has no fossil and as long as no potsherd or spearhead is dug up, an archeologist shuts up, but cosmologists pick fabrications from ~~thin air~~ the intergalactic medium that are deduced from not a single ascertained truth (i.e. observed phenomenon = fact) according to the rules of logic. That is not to be called science, i.e. **KNOW**ledge.

Einstein got his Nobel Prize for his paper in which he described energy quanta (i.e. photons = particles of light) as IMMUTABLE entities. Photons do not change whilst propagating. Where would the energy go to or come from? Cosmological redshift is not a *hypothesis*, but a *concoction* sprung from a haphazard short-sighted reasoning. See space as a fabric being stretched? Based on which FACTS? And please think really good about next: wavelength is definitely **not** a property of a photon. It is the distance it travels during one full oscillation, measured in the observer's frame in which it has **THE** speed of light.

Cosmological redshift is not deduced from facts, hence it must *on beforehand* be put aside. Unsuitable as a fundamental premise. Peebles' equation that was not derived from certainties requires superluminality. Well, then we *invent* tachyons instead of applying proper logic. Einstein showed with

**conclusions from facts of experience** (his postulates) that nothing can go faster than light. This immediately follows from the simple fact that the speed of light is a fundamental constant of nature that, independent of the mutual state of motion, has the very same value to each and every observer. Einstein did not come up with this, but **concluded** from the adamant **fact** that despite the fairly great speed of the earth around the sun (one earth diameter in merely seven minutes), the exact same value is always measured in all directions, and there is no denying that. Peebles' monster formula bears no resemblance to reality and yields far too large values. The cosmos would have a diameter of 93 billion light years, whilst its age is merely 14 billion years. This is in stark contradiction to Einstein's 2<sup>nd</sup> postulate. And please don't try to straighten out something crooked with twisted reasoning.

Please read <http://henk-reints.nl/astro/HR-Hubble-Lemaitre-slideshow.pdf> and see that the universe cannot be larger than the Hubble distance (hence it isn't) and that the correctly calculated lookback time cannot ever be larger than *half* the Hubble time in our frame. It is fundamentally impossible to observe galaxies as they appeared in the first half of the age of the universe. That light has long passed us by and can no longer be traced.

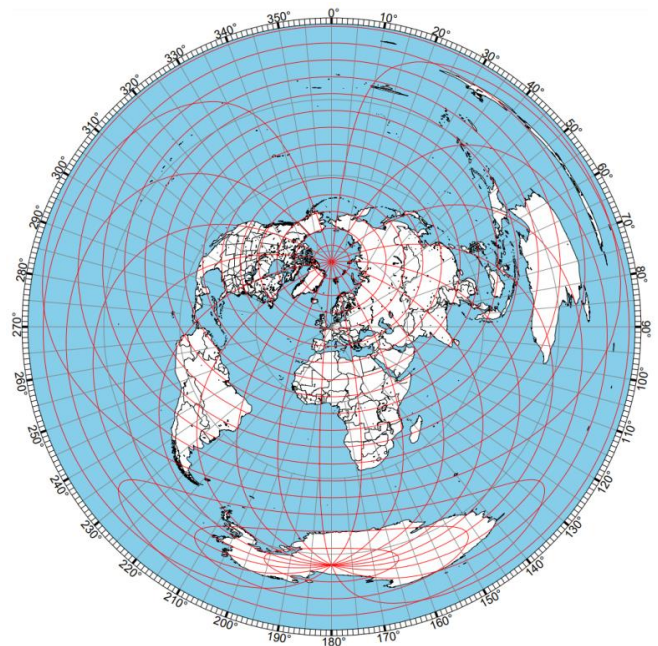
Moreover, (very) distant galaxies have a (very) high speed relative to us, so calculations must be made with relativistic kinematic time dilation/stretching and for that, the (relativistic) Doppler factor must be used (yes!) and not the Lorentz factor. To us, a distant object's proper age is dilated to a birth *very far before* the big bang (cf. the muons)! This renders: *maximum proper lookback time*  $\approx$  2.65 bln. years, *minimum proper age*  $\approx$  11 bln. years. A smaller perceived age is fundamentally impossible. This minimum/maximum is at exactly half the Hubble distance. Above that, the observed proper age increases with distance, asymptotically to the Hubble time!

**3)** Already in 2017/2018, I was able to determine from hard facts, namely the quasar database of the Sloan Digital Sky Survey (DR12Q,DR14Q,DR16Q) and the Subaru Deep Field with 1.4 mln. deep space objects, that the universe is guaranteed not to be "flat" (Euclidean), but 3-spherical. A 3-sphere (also called a glome) is a four-dimensional sphere. Yes, the fourth dimension exists!

For comparison: if you calculate beyond the equator on the surface of the earth, as seen from the north pole, using Euclidean geometry as if the earth were flat, you would miss out completely. Take a look at the world map to the right and see how much New Zealand (top right) is deformed and especially enlarged (in transversal direction, i.e. the observed size).

For exactly the same reason, the very distant galaxies observed by JWST also look much larger than they actually are. The solution is of course to apply 3-spherical geometry correctly.

I analysed 56 gravitational lenses 3-spherically and only three of them have a smaller specific luminosity (light emission per mass) than the Andromeda galaxy. This does not convincingly imply more mass than observed. Therefore, gravitational lenses are no substantiation for the brainchild called dark matter. Stay at the pillory!



*Flat Earth centered around The Netherlands  
(azimuthal equidistant projection).*

[http://henk-reints.nl/AzimuthalWorldMapAroundHelmond\(NL\).png](http://henk-reints.nl/AzimuthalWorldMapAroundHelmond(NL).png)  
(created at <https://ns6t.net/azimuth/azimuth.html>)

In <http://henk-reints.nl/astro/HR-Geometry-of-universe-slideshow.pdf> you can find the details of the geometry of the universe, as well as what the (far-reaching) consequences are.

The expansion of the universe demonstrably appears to be *completely linear* from the big bang to the present. Inflationary universe? Sheer nonsense that has been derived from *no certainty at all*, read its publication. In fact, it is blatantly contrary to Einstein's postulates concluded from facts of experience. Accelerated expansion? How is that possible? The Hubble distance grows at the speed of light, which is a fundamental constant of nature.

And  $\Lambda$ CDM (Lambda & Cold Dark Matter) can also be thrown into the wastepaper basket. *No* dark energy, *no* cosmological constant.  $\Lambda$  is Einstein's only invention, not concluded from facts of experience. It is plausible that he qualified  $\Lambda$  as his biggest blunder for that very reason. And CDM? I think you'll have to stay at least one more hour at the pillory.

The CMB (Cosmic Microwave Background) does definitely *not* come from the big bang or whatever entity in the very young cosmos. Isn't the latter unobservable, as explained above? The proper age of the CMB source is almost equal to the Hubble time. Yes! Read the document and see where it *does* come from (most probably, I do not claim more than that it is very plausible).

Another inevitable conclusion from the 3-sphericity of the cosmos: the gravitational constant ("big G") appears to be proportional to the Hubble time, the age of the universe. Have you never wondered/pondered how the big bang can have overcome gravitation when spitting out all mass in the cosmos? Well, in the beginning, gravity was equal to nought. Easy peasy lemon squeezy. **Furthermore, it appears VERY plausible that Planck's constant is also proportional to the Hubble time!** Nice! New physics!

4) In <http://henk-reints.nl/astro/HR-Twin-paradox-slides.pdf> you can find another (better) explanation of time dilation that what you are probably used to. It eliminates the ~~twin paradox~~ twin contradiction as well as the clock hypothesis, which is not a hypothesis at all, but a contradictory concoction. And please have a look at <http://henk-reints.nl/astro/HR-fall-into-black-hole-slides.pdf>.

Finally: science (i.e. *knowledge*) is not about what one can *think* or *excogitate*, but what is *known*. Each and every assumption arises from *nescience*, i.e. *not* knowing. Therefore assumptions have totally *nothing* to do with science = *knowledge*.

Sir Isaac Newton (Scholium Generale):

hypothefes feu metaphyficæ, feu phyficæ, feu qualitatum occultarum,  
feu mechanicæ, in *philofophia experimental*i locum non habent.

**Assumptions** be they metaphysical, be they physical, be they of hidden quality, be they mechanical, **have no place in** research-based **science**.

Kind regards,  
Henk Reints, MSc.  
Date: 2023-03-05.

🎻 *A violin should not be held under the chin, but between the brain and the heart.*

Original Dutch version: <http://henk-reints.nl/Open-brief-aan-alle-kosmologen.pdf>  
The Dutch version is leading.