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The Hubble constant

A note from Dr. Manfred Pohl

In many articles and publications, scientists from various branches express their surprise at the inability to determine an exact value of the Hubble constant. Why do you think it keeps failing to determine the Hubble constant? There have been many attempts, but none have been successful so far. Other natural constants can be determined precisely to many decimal places, but with the Hubble constant it simply doesn't work.

Martin Holland from the Heise.de portal said on May 16, 2023:
"The debate that has been going on for years about the mysterious discrepancy in the so-called Hubble constant has now enriched by another entry. Using a completely novel approach, a value has now been determined that is closer to one of the contradictory results but does not represent a solution. The research group led by Patrick Kelly from the University of Minnesota determined the expansion speed of the universe using a stellar explosion that have first observed in 2014 and then again in 2015 thanks to a gravitational lens."

However, the solution to the misery is remarkably simple: To Edwin Hubble (American astronomer, 1889 to 1953) is given an explanation that he rejected in 1929 after an initial assumption about the red shift of the spectra of distant cosmic objects that he has observed in 1928. That is the assumption the cause of the redshift is a Doppler effect due to the escape velocity of distant objects. But because the red shift increases with increasing distance, one concludes that the escape velocity of the objects must also increase with increasing distance. In this way one concludes that there is an accelerated expansion of the universe. Incomprehensibly, people still cling to this thesis. The Hubble constant has to intend to state how large the escape velocity *v* of an object is (in *km/s*) at a distance *r* (in *Mpc*). However: There is no legal connection between the escape velocity and the distance of the objects that would lead to a constant value. This is why the failures in determining a Hubble constant may to be explained in an elementary way: the so-called Hubble constant is not a constant. It is zero when an object is not moving away from the observer, or it has a sporadic value for various cosmic objects moving at different speeds relative to the observer.

But if one were to look at the red shift as it really occurs, namely as a loss of energy that must occur according to law for any radiation passing through interstellar space, at all these problems would not exist.

This energy loss we can calculate using the Lambert-Beer absorption law. The absorption law states that in a homogeneous medium the amount *dI* of photons absorbed in a layer of thickness *dr* at a distance *r* is proportional to the particle current density *I(r)* of the radiation existing there:

$$\frac{dI}{dr} = -\mu \cdot I(r)$$

Here *μ* is the absorption coefficient of the medium. The solution to this differential equation is

$$I(r) = I(0) \cdot e^{-\mu r}$$

I(0) is the radiation intensity at the emission point.

$I(r)$ is the radiation intensity at the distance r from the radiation point.

This distance-dependent reduction in radiation intensity is a measure of the energy loss ΔE that must occur when crossing space. Even if μ is exceedingly small in this equation because of the almost empty space, the exponent $-\mu \cdot r$ is not negligibly small because of the large distances r. The loss of energy leads to a reduction in the frequency of radiation as a result of

$$\Delta E = h \cdot \Delta f$$

Here h is Planck's constant (action quantum). Δf is the frequency reduction equivalent to the energy loss ΔE, which shifts the spectrum towards red.

With this approach, there are no problems with a constant that needs to show a connection between escape velocity and distance. It creates a more plausible connection between the size of the red shift with the distance of the objects and not with the escape velocity.

Ultimately, all of these erroneous postulates surrounding the Doppler effect explanation only serve the purpose of proving the accelerated expansion of the universe. However, this thesis cannot be maintained. The cosmic matter moves sporadically due to its internal gravitational vector sets; a general expansion of the universe, which is even declared to be accelerated, has never been observed.

But the Lambert-Beer radiation law one has knowingly left out when considering it. Why? Because then the expansion of the universe, which is supposed to be shown with the Doppler explanation of the red shift, would be refuted and with it the cosmological standard model of a big bang. But they don't want to give up on that because it fits so nicely with the Catholic doctrine of creation: God created the matter. According to the official reading of the clergy, the Big Bang is the act of creation. How much religion do you need in physics? Don't we want to finally separate them from science and move on to the dialectical method? For example, when the physicist Günther Dissertori - he is a research associate at CERN - at the end of an interview with Gian Signorell affirms the thesis that *religion and science are not mutually exclusive*, and further *that there are two methods of explaining the world*, then this suggests that religious ideas still dominate science. But science and religion are **not** *two methods of explaining the world*, because religion lacks an essential approach: matter is not viewed as an objective reality independent of consciousness. So, we have still an apparently irrefutable act of creation, with which matter was “created” or “came into existence”. But that is the elementary error, because matter can neither arise nor disappear, which means it exists eternally. This emerges from the law of conservation of energy and from the mass-energy equivalence. Both have been proven as well as theoretically as experimentally, and there is no doubt about it among serious scientists.

With the numberless unsuccessful attempts to find a Hubble constant, you can clearly see where this misinterpretation leads. You will not be able to find a Hubble constant because the connection on which it is based does not exist.