What does tell us the width of the hydrogen line about the cosmos?

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According the standard theory of cosmology, the redshift of the spectral lines in the galaxy is an indication of the expansion of the cosmos. A uniform exodus acts identically on all the photons in the direction of the observer, so that this movement cause indeed a redshift but avoid any broadening of the spectral lines. This means that the relationship between redshift would remain constant for the line width for all galaxies, if acceptance of the expansion of the cosmos would be correct. A widening of the lines caused by the so-called Doppler broadening due to the rotation of the galaxy. When representing in a diagram, the galaxies would reproduce as points in a band parallel to the abscissa because you can not expect that all galaxies rotate at the same speed. Here it is shown that this hypothesis of cosmos' expansion is incorrect.

To test the hypothesis of the expansion of the cosmos, we will select a spectral line, which we will find in all the galaxies. This is the H_α line at 656,5nm. Hydrogen is the fuel of all galaxies and in its ionized form, he is responsible for the electric fields in the cosmos. Hydrogen is one of the most transparent gases at all and is very difficult to detect in its molecular form, which is why you hardly notice its existence. Nevertheless, it is the starting point for all nuclear fusion processes up to iron. Galaxies as glowing objects thus have a lifespan that is dependent on the availability of hydrogen.
In order to exclude the very young and old galaxies, we have to introduce two criteria. For this, the thermal background radiation is considered. Very young galaxies have produced hardly any heavy elements, which is why there are hardly any thermal background radiation from the core. To determine this in range, we still need the H_β line at 486,3nm. The criterion is that the intensity of the thermal background in H_α is greater than that in H_β. To exclude the very young galaxies, the criterion must therefore be: The intensity of the thermal background in H_α must be greater than in H_β. To rule out the old galaxies, the thermal background must be smaller as the intensity of the H_α line. Otherwise, the H_α line would appear in absorption. Since the line width also changes with the intensity, you have to use the relative line width for display.

The necessary spectra we find by the Sloan Digital Sky Survey-Project (SDSS). It is the largest project to map the northern sky segment. It is mainly sponsored by the Sloan Foundation, based in New York. The to be examined spectra were taken from the database Release 7. Under the above criteria were found 260,000 spectra, which were used for the illustrated graphic (see down). The result is a unique wedge shape, which can only be interpreted as that the line width with redshift increases. However, it is not plausible why distant galaxies should rotate tend faster than closer ones.
It only remains the possibility that a loss of energy occurs to the photons en route to the observer. This energy can not be easy to get lost. It has to stay somewhere. A candidate for is the Compton effect. However, to date they had prove only in γ-rays Bremsstrahlung due to interaction with matter, not in the optical domain. However, this is not proof that it does not exist in the optical domain. It might also be the effects may be too low in order to prove with previous measurement technology. The interaction of optical radiation with matter was investigated and declared by P. Marmet [1] in 1988.

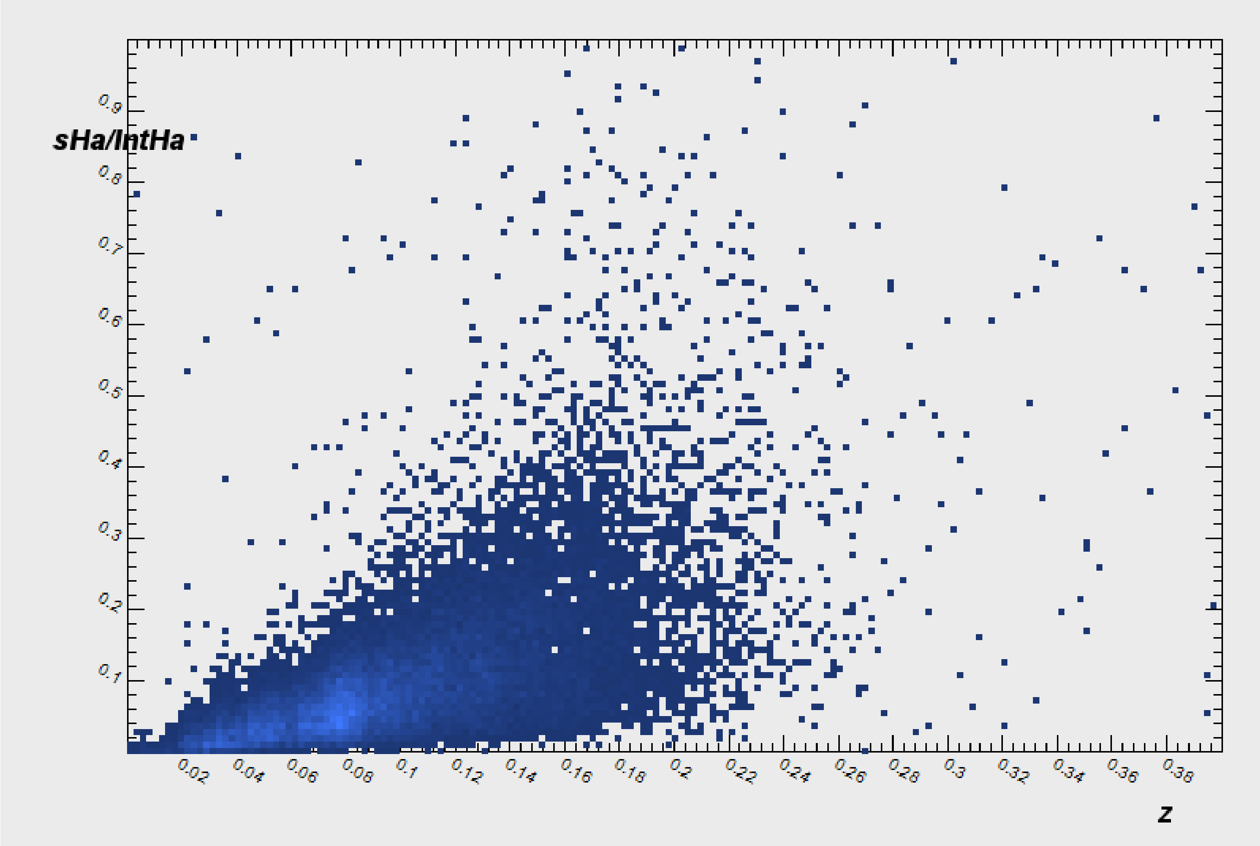

Abbildung 1: The linewidth of Ha as a function of redshift [2]

Thus, the Doppler effect is not significantly involved in the redshift and thus refutes the thesis of the expansion of the cosmos.

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[1] P. Marmet **Discovery of H_2 in Space Explains Dark Matter and Redshift** and **Cosmic Matter and the Nonexpanding Universe**

[2] M. Hüfner About Magicians, E=mc² and the Cosmos Notes 2 http://mugglebibliothek.de/english/huefner.htm