The accelerating expansion of the Universe is an illusion

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Paper 8

Either the accelerating expansion of the Universe is an illusion or $T_0 = \frac{1}{H_0}$ the age of the Universe being the inverse of the Hubble constant is not valid any longer.

Abstract

Controversy will result in the Age of the Universe as $T_0 = \frac{1}{H_0}$, (T_0 is the age of the Universe at the present epoch and H_0 the Hubble constant at present) due to accelerating expansion of the Universe.

If at any time the universes expansion starts to accelerate then the age of the Universe as the inverse of the Hubble constant will start to go backward and the Universe will become younger. This implicates the idea that the time cannot travel backward or the Universal clock has only forward direction.

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Text

The age of the Universe being the inverse of the Hubble constant has been well stablished[1] throughout the evolution of the Universe as:

$$H_{0m} = \frac{V_{0m}}{CMD} = \frac{\frac{2Zc}{3(Z+1)}}{\frac{2ZT_0}{3(Z+1)}} = \frac{1}{T_0}$$

T_0

Where H_{0m} is the Hubble constant for matter in the Universe at the present epoch.

V_{0m} is the velocity of the recession of the galaxies.

CMD is the comoving or the proper distant of the galaxies.

T_0 is the present age of the Universe and Z the red-shift.

The accelerating expansion of the Universe (*Riess et al)*[2] will increase the value of the Hubble constant and causes the decrease in the age of the Universe rather than Universe getting older.

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The table 1 is the values of the Hubble constant at different epoch of the universes evolution verses the age of the Universe and the plots in figs 1&2.

	X	Y
1	1	978
2	2	480
3	3	320
4	4	240
5	5	192
6	6	160
7	7	137
8	8	120
9	9	107
10	10	96
11	11	87.2
12	12	79.9
13	13	73.8
14	14	68.5
15	15	64
16	16	60
17	17	56.4
18	18	53.3
19	19	50.5
20	20	48
21	21	45.7
22	22	43.6
23	23	41.7
24	24	40
25	25	38.37
26	25.3425	38.565
27	26	36.9
28	27	35.53
29	28	34.26
30	29	33.08
31	30	32

Table 1

The accelerating expansion of the Universe is an illusion

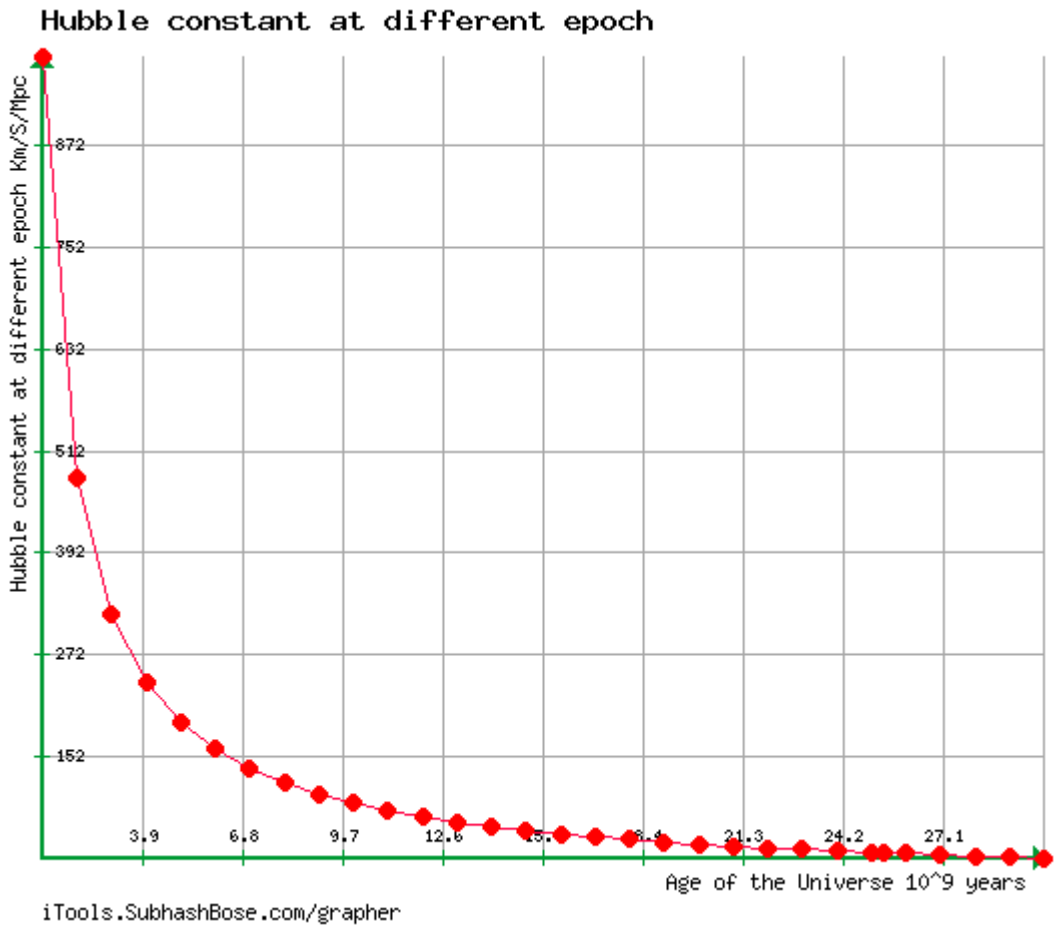
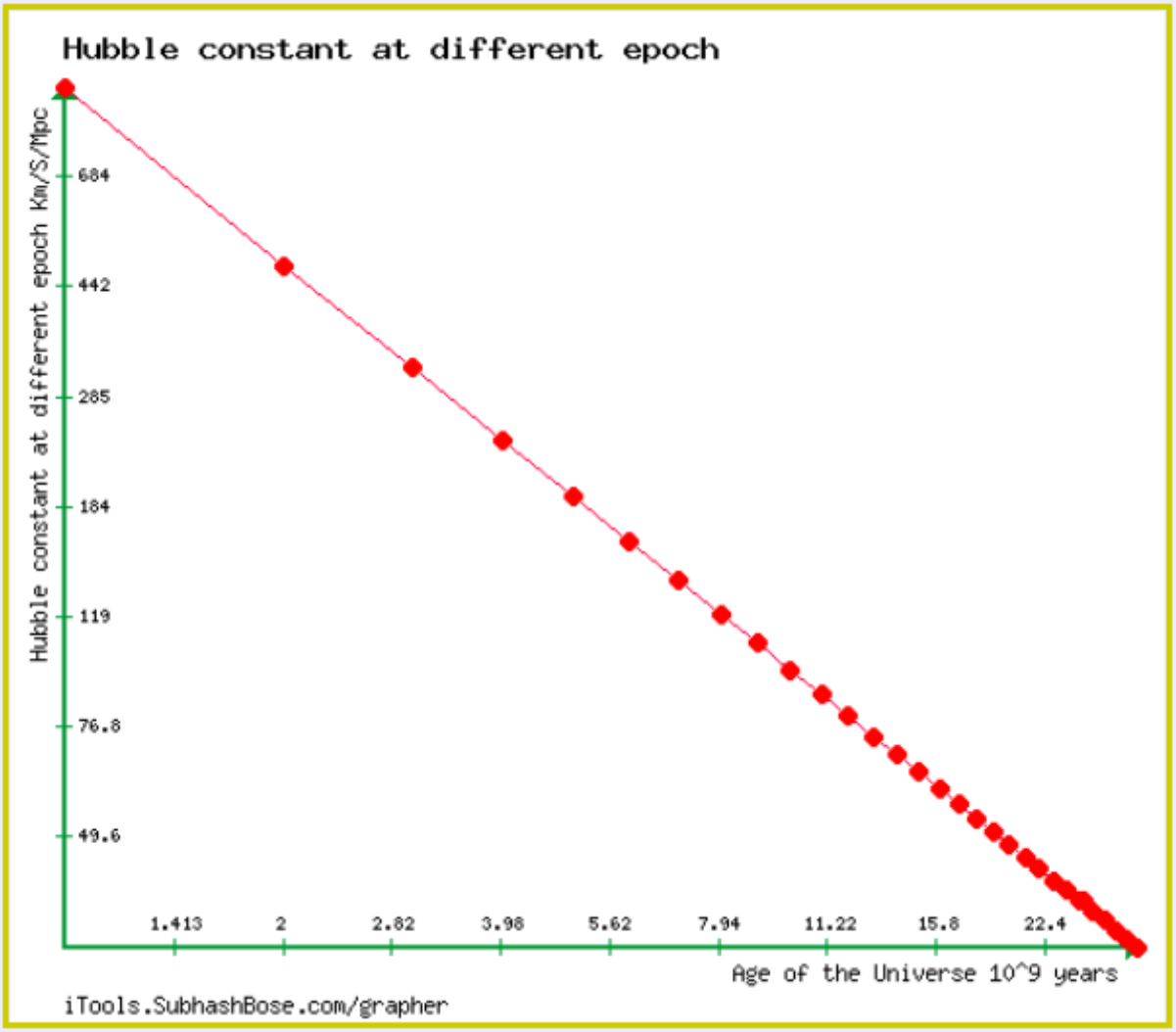


Fig 1

The accelerating expansion of the Universe is an illusion



Logarithmic X scale ☑

Logarithmic Y scale ☑

Fig 2

The accelerating expansion of the Universe is an illusion

To see how the values for accelerating expansion would affect the age of the Universe.

We will consider a galaxy a distant of about 1 MPC away moving away with the velocity of $V = 60KmS^{-1}$ will result in a Hubble constant of. $H_0 = 60KmS^{-1}Mpc^{-1}$

If after a time period of 1 billon years (1×10^9 Years), the expansion of the Universe accelerate to a velocity of $V = 70KmS^{-1}$, the galaxy would have moved a further distance of $d = 0.06646216769Mpc$ taking the average velocity at $v = 65KmS^{-1}$.

This would make the Hubble constant from

$H_0 = 60KmS^{-1}Mpc^{-1}$ to $H_0 = 65.63758KmS^{-1}Mpc^{-1}$

The inverse of the Hubble constant will give the age of the Universe and at the start prior to the acceleration $T_0 = 16.3\times10^9 Years$ to $T_0 = 14.9\times10^9 Years$ in which by adding 1 billon years the age of the Universe after the acceleration should be about $T_0 = 17.3\times10^9 Years$. This implies that the Universe is 2.4 billon years younger than it should be.

Conclusion

The calculation and the argument above shows that the expansion of the Universe cannot be accelerating and as the Hubble constant is the inverse of the age of the Universe throughout the evolution of the Universe which has been well stablished, proofs the inconsistency of the accelerating expansion.

References

1. http://viXra.org/abs/1704.0041?ref=9321691 (Hubble Constant and the Age of the Universe)
2. *Riess, Adam G.; Filippenko, Alexei V.; Challis, Peter; Clocchiatti, Alejandro; Diercks, Alan; Garnavich, Peter M.; Gilliland, Ron L.; Hogan, Craig J.; Jha, Saurabh; Kirshner, Robert P.; Leibundgut, B.; Phillips, M. M.; Reiss, David; Schmidt, Brian P.; Schommer, Robert A.; Smith, R. Chris; Spyromilio, J.; Stubbs, Christopher; Suntzeff, Nicholas B.; Tonry, John (Sep 1998). "Observational Evidence from Supernovae for an Accelerating Universe and a Cosmological Constant". The Astronomical Journal.* ***116*** *(3): 1009–1038. arXiv:astro-ph/9805201. Bibcode:1998AJ....116.1009R. doi:10.1086/300499.*