

The Universe is a Black Hole

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Abstract

With new cosmological equation's will be shown, that the Universe is a Black Hole.

1 The Cosmic Background Radiation

We could calculate the CBR (T_γ) as follows (see [1]):

$$E_\gamma = \frac{hc}{x} = 6.08088337383kT_\gamma \text{ with } T_\gamma = 2.725K$$

We could calculate $m_\gamma = 2.5444e^{-39}kg$ and $x = \lambda_\gamma = 8.6828e^{-4}m$, also a $t_\gamma = \frac{\lambda_\gamma}{c} = 2.8963e^{-12}s$.

For the Universe as a Black Hole we receive (Radius of Universe R):

$$E_{BH} = \frac{hc}{R} = 6.08088337383kT_{BH}$$

We receive for the Bekenstein-Hawking Temperature of the Universe (Planck Temperature $\Delta T = 5.8404e^{31}$, Entropy constant $\zeta = 2.1432e^{31}$):

$$T_{BH} = \frac{hc}{6.08088337383kR} = \frac{T_\gamma}{\zeta} = \frac{\Delta T}{\zeta^2} = 1.2715e^{-31}K$$

2 References

1. Peter H. Michalicka, General Relativity as Curvature of Space, <http://vixra.org/abs/1402.0004>
2. A.Einstein, Sitz. Preuss. Akad. d. Wiss., Kosmologische Betrachtungen zur allgemeinen Relativitätstheorie (1917)
3. V.Sahni, The Case for a Positive Cosmological Λ -Term, astro-ph/9904398
4. S.M.Carroll, The Cosmological Constant, astro-ph/0004075