

Content of DM & DE in the Universe

To calculate the content of Dark Matter and Dark Energy in the Universe, we have to know about it's density content in universe. We have to define about density parameter [1].

For calculating the Dark Energy, we have degree parameter:

$$\Omega_{\Lambda} = \frac{\rho_{\Lambda}}{\rho_c} \quad (1)$$

where $\rho_c = 9.47 \times 10^{-27} \text{ kg/m}^3$ and $\rho_{\Lambda} = 6.91 \times 10^{-27} \text{ kg/m}^3$ [2], after substitute the values in Eq (1).

Now, Dark Matter content in the Universe is $\Omega_{\Lambda} = 72.97\%$. For calculating the Dark Matter, we have degree parameter:

$$\Omega_m = \frac{\rho_m}{\rho_c} \quad (2)$$

where $\rho_c = 9.47 \times 10^{-27} \text{ kg/m}^3$ [4] and $\rho_m = 2.241 \times 10^{-27} \text{ kg/m}^3$ [3], after substitute the values in Eq (2).

Now, Dark Matter content in the Universe is $\Omega_m = 23.66\%$.

Bibliography

- [1] Density Parameter.,From the encyclopedia of Astronomy, **Density Parameter** .
- [2] Dark Energy.,From Physics Forum, **Dark Energy** .
- [3] Dark matter.,From Wikipedia, the free encyclopedia, **Dark Matter** .
- [4] Density Parameter.,From Wikipedia, the free encyclopedia, **Density Parameter** .