

### Rotating universe data from temperature

António Saraiva – 2010-05-13

[ajps2@hotmail.com](mailto:ajps2@hotmail.com)

See Unified Absolute Relativity Theory at:

[www.wbabin.net/saraiva/saraiva305.pdf](http://www.wbabin.net/saraiva/saraiva305.pdf)

[www.wbabin.net/saraiva/saraiva306.pdf](http://www.wbabin.net/saraiva/saraiva306.pdf)

[www.wbabin.net/saraiva/saraiva307.pdf](http://www.wbabin.net/saraiva/saraiva307.pdf)

[www.wbabin.net/saraiva/saraiva328.pdf](http://www.wbabin.net/saraiva/saraiva328.pdf)

All the correct values of our universe can be calculated from the temperature of the cosmic microwave radiation.

$$T = 2.725 \text{ K} \quad \Leftrightarrow \quad f = \frac{k_B T}{h} = 5.6753 \times 10^{10} \text{ Hz}$$

Angular speed:

$$\omega_U = 2\pi f_U = 2\pi \frac{dw}{dx} = \frac{c}{R_U} ; \quad \frac{dw}{dx} = \frac{Sf^3}{c^2}$$

Period (age) and radius of the universe:

$$T_U = \frac{c^2}{Sf^3} = 2.5852 \times 10^{18} \text{ s} ; \quad R_U = \frac{cT_U}{2\pi} = 1.2335 \times 10^{26} \text{ m}$$

Frequency of the universe:

$$f_U = \frac{1}{T_U} = 3.8682 \times 10^{-19} \text{ Hz}$$

Gravitational acceleration:

$$g_U = \frac{c^2}{R_U} = 2\pi \frac{Sf^3}{c} = 7.28622 \times 10^{-10} \text{ m/s}^2$$

Mass of the universe:

$$M_U = \frac{g_U R_U^2}{G} = \frac{c^5}{2\pi G S f^3} = 1.661 \times 10^{53} \text{ kg}$$

Hubble constant:

$$H_0 = \omega_U = 2.43042 \times 10^{-18} \text{ Hz}$$

We live at the surface of a black hole:

$$\frac{GM_U}{R_U} = c^2$$

Wavelength of the cosmic microwave radiation:

$$x = \frac{c}{f} \quad \Leftrightarrow \quad x^3 = 2\pi R_U S \quad ; \quad S = \frac{\epsilon_0^2 \alpha^4}{12\pi^4}$$

Interaction parameter of the proton:

$$\beta_P = x_P^2 q_e = 3.2 \times 10^{-49} \text{ m}^2 C$$

Interaction parameter of the neutron:

$$\beta_N = S q_m = 3.8 \times 10^{-49} \text{ m}^2 \text{ Weber}$$

The neutron has one magnetic charge:

$$q_m = 2 \times 10^{-15} \text{ Weber} \quad ; \quad q_m = \frac{h}{2q_e}$$

The neutrino has also a magnetic charge. It is the magnetic monopole.

Wavelength of the proton and the neutron:

$$x_P = 1.321 \times 10^{-15} \text{ m} \quad ; \quad x_N = i\sqrt{S} = i1.3791 \times 10^{-17} \text{ m}$$

There are no fractionary charges.

Our universe can be a subatomic particle in another superuniverse.