

A test to Absolute Relativity Theory

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See Unified Absolute Relativity Theory at:

www.wbabin.net/saraiva/saraiva305.pdf

www.wbabin.net/saraiva/saraiva306.pdf

www.wbabin.net/saraiva/saraiva307.pdf

www.wbabin.net/saraiva/saraiva328.pdf

Using cosmic gamma rays of very high energy we can test our theory.

According to classical physics from a gamma photon with energy 500GeV:

$$\text{Frequency: } f = 1.2 \times 10^{26} \text{ Hz}$$

$$\text{Wavelength: } x = 2.5 \times 10^{-18} \text{ m}$$

According to UART:

$$f = 2.0 \times 10^{25} \text{ Hz}$$

$$x = 5.9 \times 10^{-18} \text{ m}$$

$$w = 1.2 \times 10^8 \text{ m/s} \text{ -- Local speed in earth gravitational field}$$

Formulas:

$$E = hf \frac{c^2}{w^2} \quad \Leftrightarrow \quad f = \frac{-hc^2 + \sqrt{h^2c^4 + 4E^2Sc^2}}{2ES}$$

$$c^2t^2 - x^2 = S \quad \Leftrightarrow \quad x = \frac{\sqrt{c^2 - Sf^2}}{f}$$

$$w = xf$$

Microwave background and universe frequency

Lorentz's invariance:

$$c^2 t^2 - x^2 = S \quad ; \quad t = \frac{1}{f} \quad ; \quad w = xf$$

$$\Leftrightarrow \quad w = \frac{cx}{\sqrt{S+x^2}} \quad ; \quad \frac{dw}{dx} = \frac{Sf^3}{c^2} \quad ; \quad S = \frac{\varepsilon_0^2 \alpha^4}{12\pi^4}$$

Frequency of the microwave radiation:

$$f = \frac{k_B T}{h} \quad ; \quad T = 2.725 \text{ K}$$

Angular speed of the universe:

$$\omega_U = 2\pi \frac{dw}{dx} = \frac{c}{R_U} \quad ; \quad R_U = 1.284 \times 10^{26} \text{ m}$$

c – Light speed; t – Period; x – Wavelength; f – Frequency; w – Wave speed;
 k_B - Boltzmann constant; h – Planck constant; T – Temperature;

R_U - Universe radius ; ε_0 - Vacuum permittivity ; α - Fine structure constant.

$$x = \frac{c}{f} \quad \Leftrightarrow \quad x^3 = 2\pi \cdot S R_U$$

Period of the universe (“age”):

$$T_U = \frac{c^2}{Sf^3}$$

The universe is not expanding. It's rotating locally at light speed.

The “age” of the universe is related to the frequency of the cosmic microwave radiation.

Gravitational acceleration of the universe:

$$g_U = \frac{c^2}{R_U} \quad ; \quad g = \frac{dw}{dt} = \frac{Sf^3}{c}$$

$$\Leftrightarrow \quad g_U = 2\pi g$$

The cosmic microwave background radiation is generated by the rotation of the universe.

We are not at the centre of the universe! We live at the surface of a black hole.

