

The age and radius of the Universe

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After studying the curvature of the time under the action of a local gravitational field in an expanding universe and the variation of atomic radius of the matter with the density variation of potential energy on local, we are able to study the size of the universe.

The age of the universe

Has:

- Distance from Earth to the Moon: 384,467,001.03 meters.
- The radius of the Earth, where is measured the time it takes the laser ray to go and back from the Moon: 6.369.323 m.
- Radius of the Moon: 1.738.000 m
- Virtual removal between the Earth and Moon: D_o - 0.038 m

D_1 – Real removal between the Earth and the Moon

I – Actual age of the Universe.

Actual velocity of the light C_o - 299.792.458 m/s

Given the homogeneity of the universe, the growth of the local universe is proportional to the growth of the Universe.

R_u - Radius of the universe

$$R_u = \frac{1 \text{ Year light}}{D_1} * 384.467.001,03 \text{ m}$$

Once it has been able to determine the annual removal of the Moon relative to Earth, we can easily calculate the radius of the universe.

Correction of the correlation coefficient of the distance between the Earth and the Moon

Considering the removal between the centers of mass in proportion to the age of the universe, and the radius shrinking of the matter in inverse proportion to this growth and even the curvature of time due to the expansion of the universe, we have:-

The removal between the Earth center of mass, and the Moon center mass:

$$\frac{L_0 + D_1}{L_0} = \frac{I + 1}{I}$$

The radius of the Earth:

$$R_{Tt} = R_T \frac{I}{I + 1} = R_T \frac{L_0}{L_0 + D_1}$$

$$R_{Tt} = R_T \frac{L_0}{L_0 + D_1}$$

The radius of the Moon:

$$R_{Lt} = R_L \frac{L_0}{L_0 + D_1}$$

The velocity of light at next year:

$$C_{t=1} = C_0 \sqrt{\frac{L_0}{L_0 + D_1}}$$

The real removal between Earth and Moon D_1 :

$$\frac{L_0 + D_0 - (R_{T0} + R_{L0})}{C_0} = \frac{L_0 + D_1 - (R_{Tt} + R_{Lt})}{C_{t=1}}$$

$$\frac{L_0 + D_0 - (R_{T0} + R_{L0})}{C_0} = \frac{L_0 + D_1 - (R_T + R_L) \frac{L_0}{L_0 + D_1}}{C_0 \sqrt{\frac{L_0}{L_0 + D_1}}}$$

$$D_1 = 0,0251564 \text{ m}$$

This is therefore the real removal between the centers of mass of the Earth and Moon.

The Moon don't moves away from the 0038 m per year but 0.0251564 m per year, due to increased time local derivative of the increased value of the local gravitational variable.

$$L_O = 384.467.001,7 \text{ m}$$

Annual shrinking of the Earth:

$$\partial R_{T_O} = -4,16757E-04 \text{ m}$$

Annual shrinking of the equator of the Earth:

$$\partial R_{T_O} \text{ (Equator)} -4,17333E-04 \text{ m}$$

Annual shrinking of the Moon:

$$\partial R_{L_O} = -1,13721E-04 \text{ m}$$

Age of the Universe

$$K_c = \frac{384.467.001,7}{0,0251564}$$

$$K_c = 15.283.069.185,35 \text{ Years light Earth}$$

$$R_u = 15.283.069.185,35 \text{ a.l}$$

$$R_u = 1,44589E+26 \text{ m}$$

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