the general science journal

Black hole universe II

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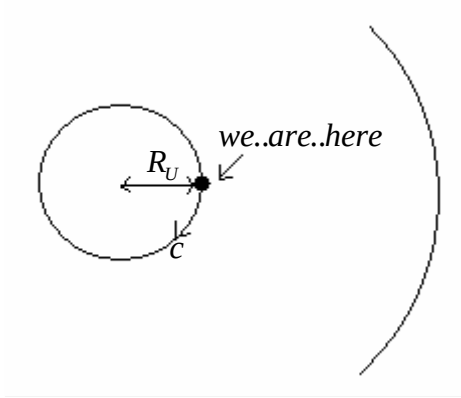
See the censored Unified Absolute Relativity Theory at:

www.wbabin.net/saraiva/saraiva305.pdf
www.wbabin.net/saraiva/saraiva306.pdf
www.wbabin.net/saraiva/saraiva307.pdf
www.wbabin.net/saraiva/saraiva328.pdf
www.wbabin.net/stham/saraiva347.pdf
www.wbabin.net/stham/saraiva366.pdf
www.wbabin.net/stham/saraiva395.pdf
www.wbabin.net/stham/saraiva416.pdf

The universe has a center and is rotating at light speed. We live at it surface.
The universe is eternal. Dark matter is dead stars and galaxies.

Local universe:



Orbital speed:

$$v = \sqrt{\frac{GM}{R}}$$

With constant density:

$$M = \rho \frac{4}{3} \pi . R^3 \qquad \Leftrightarrow \qquad v = \sqrt{\frac{4\pi . G\rho}{3}} R$$

Hubble law:

$$v = RH_0 \qquad \Leftrightarrow \qquad H_0 = \sqrt{\frac{4\pi.G\rho}{3}}$$

Density of the universe:

$$\rho_U = \frac{3H_0^{\ 2}}{4\pi.G} = 1.9\times10^{-26}\, kg/m^3$$

$$H_0 = 70.8 km/s/Mpc = 2.3\times10^{-18}\, Hz$$

Universe radius:

$$R_U = \frac{c}{H_0} = 1.3\times10^{26}\, m$$

There are 10^{23} universes.

Mass of the universe:

$$M_U = \frac{c^2 R_U}{G} = 1.76\times10^{53}\, kg \qquad \Leftrightarrow \qquad c = \sqrt{\frac{GM_U}{R_U}}$$

G – Gravitational constant; ρ -- Density; H_0 -- Hubble constant;
c – Light speed.

Locally, the universe is a black hole.

Universe gravitational acceleration:

$$g_U = \frac{c^2}{R_U} = 6.9\times10^{-10}\, ms^{-2}$$

Cooper pair energy

$$E_Y = \frac{q_e^{\ 2}}{4\pi\varepsilon_0 R}\ ; \qquad R = \frac{x_e}{\pi\alpha^2} = 1.45\times10^{-8}\, m$$

q_e -- Electric charge; ε_0 -- Vacuum permittivity; R – Distance;
x_e -- Electron Compton wavelength; α -- Fine structure constant.

$$E_Y = 0.1eV \qquad \Leftrightarrow \qquad \text{T} = 1153\text{K}$$

At normal pressure, superconductivity is possible at a temperature 1153K. At high pressure, temperature can be higher.

The center of the earth is superconductor. Dynamo theory is wrong.

All the red dwarf stars have metals, so some are older than the universe.

If gravity travels at light speed, how can it escape from a black hole?

SI units of the cosmological constant:

$$\Lambda = m^{-2} \qquad \text{(inverse surface or inverse entropy)}$$

There is no cosmological constant.

Known maximum mass of a black hole:

$$M = 4\times10^{39}\,kg = 2\times10^{9}\,M_S$$

Radius:

$$R = 19.8AU = 3\times10^{12}\,m$$

Black hole quantum:

$$M = 3.32\times10^{30}\,kg$$

If it is a super black hole – density stays constant and the orbital speed is greater than light speed:

Black hole quantum density:

$$\rho = 5.3\times10^{19}\,kg/m^3$$

Radius:

$$R = 2.62\times10^{6}\,m$$

Surface orbital speed:

$$v = 3.2\times10^{11}\,m/s = c\times10^{3}$$

Macroscopic matter can overtake light speed: