SUMMARY OF COSMOLOGY FUNCTIONS OF MY BOOK AND PAPERS

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My book : Modified Hawking Field .Metrical analysis in cosmology ISBN 978-3-8433-6512-3
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COSMOLOGY FUNCTIONS

$$m=(2\pi)^{1/6} e \frac{T^{2/3}}{\pi *^{2/3} c^{4/3}}$$

$$\pi * is\ equal = 3.1598\, Cb^{3/2}\, Kelvin\, sec^2\, Kg^{-3/2}\, m^2$$

$$\pi * is\ equal = \frac{h^{1/2} c^{1/2} G^{1/4}}{Ke^{3/4} kb}$$

Ke = 1/4πε0 : Coulomb constant , h: Plank constant , c: speed of light , e : electric charge of positron >0 , G: gravitation constant , kb: Boltzman constant , ε0: electrical vaccum constant.

For T=2.73Kelvin CMBR temperature , m = mass of positron >0
for m = $m_{eg51.a}$ arises T = $2\pi T_{plank}$ temperature (the probmem of higher temperature fixed in an appropriate length , page 52 of book).

$$T = \frac{\pi * c^2}{e^{3/2} (2\pi)^{1/4}} m^{3/2}$$, For m = $m_{eg51.a}$ arises $T=2\pi T_{plank}$

$$Tplank = 1{,}416\, x10^{32}\, Kelvin$$

$$meg51.a = \frac{e}{\sqrt{4\pi\varepsilon 0 G}} = 4.66\text{x}10^{-9}\, kg$$

Surface emission of CMBR : $S = 64\pi^2 R^2$, units m^2

FUNCTIONS OF GREAT OBJECTS OF SPACE , STARS AND BLACK HOLES

$$m = \frac{4\pi\sqrt{2\pi} e0^2}{e\pi *^2 (\frac{10}{12})^{-3}} T^2 lc^2 = 8.925\text{x}10^{-4} T^2 R^2$$, units : kg

lc =R : radius of the star , m: mass of star , **T: temperature of core of star**
e : electric charge of positron >0 , ε0: electrical vaccum constant.

$$T=\sqrt{\frac{e\pi*^2(\frac{10}{12})^{-3}}{4\pi\sqrt{2\pi}e0^2}}\frac{\sqrt{m}}{lc}=33.47\frac{\sqrt{M}}{R}$$, units : Kelvin

T: temperature of core of star , M: mass of star , R=lc: radius of star

$$T=CR\frac{lc^{\frac{3}{2}}}{m^{\frac{3}{2}}}$$, units : second

T : period rotation of star , lc = R : Radius of star , m : mass of star

$$CR=4\pi\frac{\sqrt{8\pi^3.\varepsilon 0}}{k5.1a}=4\pi\sqrt{\frac{4\pi^3}{G}}=8\pi\sqrt{\frac{\pi^3}{G}}=1.713\text{x}10^7\,s\,m^{-2/3}\,kg^{1/2}$$

CR: constant of stellar's rotation , k5.1a =$k_{5.1a}$

$$k5.1a=\sqrt{2\text{G}\varepsilon 0}=\sqrt{G/2\pi\text{Ke}}=3.43745\times10^{-11}\,C/Kg$$

$$E=(4\pi\text{GkKe})\,\rho c\,m\,R$$, units: joule

E: Rotation energy ,
k = k_{51a} , e0: electrical constant of vaccum , Ke = K_e : Coulomb constant ,
ρc = ρ_c : density of mater of star , m : mass of star , R: radius of star

$$L=\frac{1}{2\pi\text{G}}\sqrt{\frac{2\pi}{kKe\rho c}}$$, units: Henry

L: self conduction of star
G : gravitation constant , k = k_{51a} , Ke = K_e : Coulomb constant , ρc = ρ_c : density of mater of star

$$I=\sqrt{2\frac{E}{L}}$$, units: Amper

I : intensity of currents of star , E: energy rotation

$$B=\frac{E}{2\pi\text{IRRcore}}$$, units: Tesla

B: intensity of magnetic field

For black holes R = R_{core} , R = radius of star , Rcore= R_{core}: radius of core of star

$$B = \frac{E}{I2\pi \frac{R^2}{n}}$$

$$n = \frac{R}{Rcore}$$

m: mass of star or black hole , I : intensity of current , R = radius of star , Rcore = radius of core of star , Rcore : radius of core of star , for black holes n=1 , for Sun n=5 and for Earth n=2

From that functions arise temperatures:Sgr A* black hole
($8.2 \text{x} 10^{36} kg$, $R = 1.1 \text{x} 10^{10} m$) the radiation is 0.75MeV or 750keV(by function that gives the temperature of core of stars) and 22.4KeV or $2.7 \text{x} 10^{8} Kelvin$ (by the function of temperature of core of stars , the Hawking-Bekenstein-Kerr function and Hawking radiation function)
Also magnetic field for Sagittarius (Sgr A*) Black hole is 200 Gauss ,(NASA , 2013)

END