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Siva's Classical Equation for Space Time and Matter

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ABSTRACT

There is a relation between mass 'm' of the body and its affect on space time defined for it at a radius'd' from the center of that body. It is assumed that the mass 'm' is inversely proportional to the square of radius'd'. The proportionality constant is not known. In the process of derivation of that constant, a new equation of space time and matter has been derived. Verification with Newton's law of gravitation, Newton's Gravitational Constant 'G' and Siva's Constant 'K' ,Classical Equation of space time and matter has been derived. An equation for space time density associated to a particular mass also has been derived. These equations will influence Black hole physics, Singularity problem of black holes, elementary particle physics and cosmology.

Keywords : *classical Equation, space time equivalence, Siva's Constant, space time density.*

1 Introduction

We have Equation for mass and distance in space time[1] i.e "md^2 = constant". The square of distance (d) of a point in space time from mass 'm' and is occupied by it is inversely proportional to the quantity of mass. The proportionality constant is not known. In the process of derivation of that constant a new equation of space time and matter has been derived. We have Space time equivalence Equation [3] i.e. $d = \sqrt{(4\pi t^3)}$. This equation explains that Space is a substance .Time is a substance. Space-time is a fluid with density. Space and time can be converted in to one another forms. Quantitatively't' seconds of time can be converted in to a space (spherical shape) with a radius of 'd' meters equivalent to $\sqrt{(4\pi t^3)}$.Verification with Newton's law of gravitation, Newton's Gravitational Constant 'G' , Siva's Constant 'K' and space time equivalence equation, Classical Equation of space time and matter has been derived. An equation for space time density associated to a particular mass also has been derived. The curvature of space time or gravity is due to the imbalance affect of this classical equation for space time.

2 Analysis and derivation

We have two equations.

1. Newton's equation for gravitation

$$F = \frac{G M m}{d^2}$$

2. Siva's equation for gravity[2][4]

$$Vd = K$$

Let us equate these two equations

Let us suppose a mass 'm' is at a distance'd' from a mass'M'. So mass 'M' will excerpt a pulling force on mass 'm'. Thus mass 'm' will get acceleration 'a' towards the center of mass 'M'. If we consider a fraction of the moment in which only velocity can be considered instead of acceleration. That velocity is final velocity of the mass 'm' and the initial velocity is zero. The final velocity arrived in't' seconds to define acceleration 'a'. Thus the time't' is the least quanta of time in which there will not be any velocity change. This is nothing but the time mentioned as the change of Universal Film as per 'Film Theory of the Universe'[1].

$$\frac{GMm}{d^2} = ma$$

$$\frac{GM}{d^2} = \frac{V}{t}$$

$$\frac{GM}{d^2} = \frac{K}{dt} \qquad \text{(since Vd =K)}$$

$$\frac{GM}{d} = \frac{K}{t}$$

$$M = Kd/Gt$$

$$= (K/G)(d/t)$$

Here

Siva's Constant 'K' $=2.0275338\times10^2$ sqmts/sec[2][4]

Newton's Gravitational Constant = 6.672×10^{-11} N-m^2/kg^2

As per space time equivalence equation [3], time 't' can be converted in to 'd'

We have $d = \sqrt{(4\pi t^3)}$ (As per space time equivalence equation).

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$M=(K/G)(d/t)$

$M=(K/G)[(d^{1/3})(4\pi)^{1/3}]$

$M=[(4\pi)^{1/3}(K/G)]d^{1/3}$

$M=\phi\ d^{1/3}$

Where $\phi = [(4\pi)^{1/3}(K/G)]$
$= 2.324894703\times(2.0275338\times10^{2}/6.672\times10^{-11})$
$= 2.324894703\times0.30388696\times10^{13}$
$= 0.706505184\times10^{13}$
$= 7.06505184\times10^{12}$

We have
Classical equation for space time i.e md^2 = constant.

Any mass (m) will exist with a space time fluid with in a radius 'd'from its center . This is the 'flat space time' [5][6] associated with that mass. Here mass is inversely proportional to square of 'd'. Proportionality of constant is not known. The curvature of space time or gravity is due to the imbalance affect of this classical equation for space time .

Thus as explained above, we have two equation for mass 'm' ,and distance 'd'

$$m=\phi d^{1/3} \quad \text{where } \phi=7.06505184\times10^{12} \tag{1}$$

$$md^2=\text{constant.} \tag{2}$$

Eqn.(1)/Eqn.(2) =>

$$\frac{\phi\ d^{1/3}}{\text{Constant}} \times d^2 = 1$$

$d^{7/3}$ =constant/ ϕ

Constant = $\phi\ d^{7/3}$

Thus classical equation for space time and matter can be written as

$md^2 = \phi\ d^{7/3}$

$$\frac{m}{d^{1/3}} = 7.06505184\times10^{12} \tag{3}$$

Thus if we know mass 'm' of any matter we can calculate the space 'd' of the space time associated with it and as per space time equivalence equation i.e $d = \sqrt{(4\pi\ t^3)}$ we can calculate time 't' of the space time associated with it.

Now as per the theory time forms in to space and space time will be formed. This space time will contract and form the matter.
Let us suppose the mass 'm' created by space time and space associated with it is 'd'.
So its space time density 'γ' will be $m/[(4\pi d^3/3)]$

Now the classical equation for space time in terms of density is

$\gamma\ (4\pi d^3/3) = d^{1/3} \times 7.06505184\times10^{12}$
$\gamma\ d^{8/3} = (7.06505184\times10^{12}\times3)/\ 4\pi$

$$\gamma d^{8/3}=1.686656885\times10^{12} \tag{4}$$

Physically, the density of the matter created shows the volume of space $(4\pi d^3/3)$ it contains in its space time volume. So 'γ' is the equivalent space time density of mass 'm'.

If we know mass 'm' of a particle and radius of the particle 'd_m' we can calculate the density'γ_m' of the particle. If we know mass 'm' ,we can find space time radius existed for that mass 'd'by the equation(3) and the space time density can be calculated by substituting the same 'd' in equation(4)

If $\gamma_m = \gamma$ It is flat space time defined by general relativity. It will be a neutral particle.

$\gamma_m > \gamma$ Its density is more than its space time density and the space time will have a curvature representing the presence of gravity.

$\gamma_m < \gamma$ Its density is less than its space time density thus its space is more and will be converted in to time . This will be represented by electromagnetic field associated to that mass. In other terms it will have a charge. Since time is nothing but electromagnetic field.

3 CONCLUSIONS

1. The distance (d) of a point in space time associated to a mass 'm' is related by an equation $m = 7.06505184\times10^{12}\ (d^{1/3})$. The curvature of space time or gravity is due to the imbalance affect of this classical equation for space time.

2. The classical equation in terms of density of space time 'γ' is $\gamma\ d^{8/3} = 1.686656885\times10^{12}$.

3. The Quantity of space and quantity of time can be calcu lated separately presented in a space time fluid,

4. If we know mass 'm' of a particle and radius of the particle 'd_m' we can calculate the density 'γ_m' of the particle. If we know mass 'm' ,we can find space time radius existed for that mass 'd 'by the equation(3) and the space time density can be calculated by substituting the same 'd' in equation(4)

   If $\gamma_m = \gamma$ It is flat space time defined by geeral relativity. It will be a nutral particle.

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