

# Importance of Siva's Constant 'K' in Redefining Law of Gravitation as an Affect of Consciousness

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**Abstract** Velocity in Siva's gravity equation has been explained as acceleration within the duration of film change of the universe. The duration of film change has been considered as plank time. Siva's equation for gravity is expressed in terms of acceleration and equalized with Newton's gravitational formula. Thus derived a new equation connecting Newton's Gravitational constant 'G', Mass of the body 'M', distance between two points in the space time associated to that mass 'd', Siva's constant 'K' and plank time 't<sub>p</sub>'. It is explained that the Siva's constant 'K' is a constant for a quantum of space time associated to a mass having a specific space time density and will vary with mass of the body. It emphasized the significance of Siva's constant in the calculation of fundamental entities like mass and distance when we consider the Gravitational constant 'G', plank length, plank time and plank mass are constants. The entire concept elaborates and emphasizes the concepts of 'film theory of Universe', 'theory of absolute velocities' and the 'affect of consciousness on laws of physics'. Physical interpretation of this equation explains that 'K' value will describe the quantum of space time and its density at a distance 'd' for a mass 'M'. This is an important parameters in 'Grand Unification' calculations to justify the coupling constants of fundamental forces. This space time quanta follows geometry of 'General relativity' when applied to 'Film theory of Universe'. Thus it concludes that gravity originates due to the affect of consciousness.

**Keywords** Film theory of Universe, Relativity, Absolute velocities, Gravity equation, Newton's Gravitational constant, Classical equation of space time, Plank scale

## 1. Introduction

Double theory of relativity [1] and 'Super theory of Relativity' [2] emphasized the concept of consciousness in physics and modified the concept of relativity as 'concept of absolute velocities' [3]. This concluded that the term 'relativity' can be replaced by 'absolute'. The analysis claims for an experimental verification for kinetic energy in support of modification in 'Special Theory of Relativity' [4]. 'Absolute velocities' and 'observed velocities' related by an equation  $v_o = v_a \gamma$ . Concept of absolute velocities explained the 'Film theory of Universe' in terms of 'Inertial frames of reference'. It is concluded that 'special theory of relativity' which is based on 'Inertial frames of references' is valid for a single film of universe and the universe is not an outcome of single film. Change of films of the 'Film theory of Universe' follows general theory of relativity. It is explained that consciousness is the main constituent of living things and differs with non living things or materialistic world. In other words the whole universe is a manifestation of consciousness which a characteristic of living things. But it also explained that 'consciousness' or 'life' combines two

films of the universe to create materialistic world consisting of space time continuum and follows General theory of Relativity. The physics of these concepts explains the gravitation is an outcome of change of two consecutive films. Thus the Siva's gravitational equation elaborated and compared with Newton's law of gravitation. The conclusions are demanding for the change of basic thinking on most basic concepts such as mass, time and length or the change of 'Newts universal Gravitational concept' i.e. 'G' with mass of object. Siva's gravity Equation  $Vd = K$  [5] can be written in terms of accelerated frames. The equation can be written as ' $ad = \frac{K}{t}$ ' where 'a' is acceleration due to change of velocity with change of films for a duration of time 't'. This 't' has been calculated as  $7.68130 \times 10^{-44}$  sec. For appropriate results, it is considered that the duration of film change in 'Film theory of Universe' [1-2] is nothing but plank time 't<sub>p</sub>'. The force exerted by the acceleration of this equation must be equivalent to Newton's law of Gravitation. When we solve both equations, we concluded that the Newton's Universal Gravitational Constant 'G' and plank time 't<sub>p</sub>' are considered as constants, the Siva's constant 'K' is a constant for a particular space time density. Space time density cannot be constant and will vary with mass of the body and also with distance measured from centre of the body. Interpreted by equation  $G t_p \left(\frac{M}{d}\right) = K$  Where 'K' is Siva's constant and 't<sub>p</sub>' is plank time.

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## 2. Theory & Derivations

Brief introduction to Siva's constant 'K' -

It is explained in 'Double Relativity Effect' that universe is made up of films which are changing at the rate equal to  $7.68130 \times 10^{-44}$  sec [1]. Let us call it as ' $t_f$ ' the time duration for film change as per film theory of the universe. Let us consider  $t_f = t_p = 5.39116 \times 10^{-44}$  sec. Where plank time  $t_p = 5.39116 \times 10^{-44}$  sec. The back word calculation will revise the quantities involved in the calculation of ' $t_f$ '.

As per 'film theory of the universe', each film contains two forces one is cause for expansion of universe and follows 'Hubble's formula for expanding universe' i.e  $V=Hd$  and another is cause for attractive force and follows Universal law of gravitation i.e  $Vd=K$ .

In both the equations ' $d$ ' is distance. ' $V$ ' is velocity of the object due to these forces exerted on it. Film theory says that these forces are the consequence of film change from one film to another film. Thus the observer experiences these forces due to change of velocities associated to that film and the acceleration can be calculated as the change of velocity during film change. Thus the attractive force can be interpreted in terms of gravitational force exert on anybody. Let us analyze it.

We have

Siva's equation for Gravitation is  $Vd = K$  [5]

$V$  is velocity of a body towards center of another body.

$d$  is distance between two bodies.

$K$  is Siva's constant [5]. Here the velocity ' $V$ ' is absolute velocity. As per 'theory of absolute velocities' [3], every velocity is absolute velocity associated to a film of universe and is an absolute inertial frame of reference. But it will convert in to observed velocity when the film changes to the next consecutive film. Thus the velocity will become acceleration as the film changes from one to another within the duration of plank time ' $t_p$ ' i.e  $5.39116 \times 10^{-44}$  sec.

Therefore

$$Vd = K \quad (1)$$

$\Rightarrow$

$$a t_p d = K \quad (2)$$

$$\therefore a = \frac{K}{d t_p}$$

We have Newton's Gravity equation is

$$F = \frac{GMm}{d^2} \quad (3)$$

We have

$$F = ma \quad (4)$$

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

$$\therefore a = \frac{GM}{d^2} \quad (5)$$

Substitute (2) in (5)

$$\frac{K}{d t_p} = \frac{GM}{d^2} \quad (6)$$

$$GM = \frac{Kd}{t_p} \quad (7)$$

$$G = \left(\frac{K}{t_p}\right) \left(\frac{d}{M}\right) \quad (8)$$

Where

$$t_p = 5.39116 \times 10^{-44} \text{ sec}$$

Here Plank time ' $t_p$ ' is constant. ' $G$ ' can also vary with  $\left(\frac{d}{M}\right)$  if ' $K$ ' is constant. But ' $K$ ' is a part of the equation  $Vd = K$ . This equation is valid for a one film of the universe associated to an absolute velocity ' $V$ '. Duration of the film change is Plank time ' $t_p$ '. A film is nothing but a momentary space time within the duration of Plank Time. Thus Siva's constant ' $K$ ' is a constant for that momentary space time density. Space time density depends on Mass of the body. So we can keep ' $G$ ' as constant and can find out the values of ' $K$ ' for different values of mass ' $M$ ' and distance ' $d$ '.

Then (8) can be written as

$$K = Gt_p \left(\frac{M}{d}\right) \quad (9)$$

### 2.1. Let Us Apply It to a Photon with Minimal Energy

Let us apply (8) to a photon of maximum wave length in this universe.

As per the 'Heart of God model' [7] the maximum wave length is diameter of Hubble universe i.e.

$$\lambda = \frac{c}{H} \quad (10)$$

We know

$$E = hv \quad (11)$$

$$E = \frac{hc}{\lambda} \quad (12)$$

Substitute (10) in (12)

$$E = hH \quad (13)$$

As per super theory of relativity [2] the rest mass of photon is

$$m_p = \frac{m}{\sqrt{2}} \quad (14)$$

Where  $mc^2$  is total Energy of photon.

$$\therefore mc^2 = hH \quad (15)$$

$$\therefore m_p = \frac{hH}{c^2\sqrt{2}} \quad (16)$$

This rest mass will be used for calculation for mass in (8)

This photon is a tiny black hole with radius ' $r$ '

As per Schwarzschild radius equation

$$r = \frac{2Gm}{c^2} \quad (17)$$

For  $r = d$  and  $m = m_p$  (17) can be written as

$$d = \frac{2Gm_p}{c^2} \quad (18)$$

$$\therefore m_p = \frac{dc^2}{2G} \quad (19)$$

$m_p$  is rest mass of photon.

Substitute (19) in (8)

$$G = \left(\frac{K}{t_p}\right) \left(\frac{d}{M}\right)$$

$$\therefore t_p c^2 = 2K \quad (20)$$

Substitute  $cd = K$  in (20)

$$\therefore ct_p = 2d \quad (21)$$

Where 'd' is radius of photon as per (17).

Its physical meaning is that the photon is a black hole with dia 'ct<sub>p</sub>'. That is nothing but plank length 'l<sub>p</sub>' whatever may be its energy or mass.

$$\therefore ct_p = l_p = d_p \quad (22)$$

Where d<sub>p</sub> is diameter of photon.

This length is the least length in gravity space time.

Rest mass of photon with minimal energy i.e m<sub>p</sub> can be calculated by (16)

There fore

$$m_p = \frac{hH}{c^2 \sqrt{2}}$$

Substitute the values [8-10]

$$h = 6.626\,070\,040 \times 10^{-34} \text{ J.s}$$

$$c = 2.99\,792\,458 \times 10^8 \text{ m/sec}$$

$$H = 2.255582386 \times 10^{-18} / \text{sec}$$

$$(H = 69.6 \pm 0.7 \text{ Kms}^{-1} \text{Mpc}^{-1} [9])$$

The length of one parsec [10] is

$$3.085677581491 \times 10^{16} \text{ m})$$

Therefore

$$m_p = 1.1758673 \times 10^{-68} \text{ Kgs} \quad (23)$$

Substitute the values of G, K, and m<sub>p</sub> in (8) we can get the corresponding 'd' for the rest mass of this least photon say d<sub>p</sub>

$$d_p = \frac{G m_p}{K} \times t_p$$

Thus as per (22), for a of photon

$$d_p = l_p$$

$$\text{We have } l_p = 1.616229 \times 10^{-35} \text{ mts [8]}$$

$$m_p = 1.1758673 \times 10^{-68} \text{ Kgs}$$

$$G = 6.67408 \times 10^{-11} \text{ m}^3 \text{ kg}^{-1} \text{ sec}^{-2}$$

Then the 'K' value will be

$$K = \frac{G m_p}{d_p} \times t_p$$

$$K = \frac{G m_p}{c} \text{ Since } d_p = l_p \text{ and } \frac{l_p}{t_p} = c$$

$$\therefore K = 3.91521667 \times 10^{-87} \text{ m}^2 \text{ sec}^{-1}$$

In these calculations, 'K' plays an important role to understand the concept of film theory and how it is connected to gravity and 'Newton's Universal gravitational concept' as a consequence of film change. Thus it is supporting the concept of consciousness and super theory of relativity.

Further if we analyze-

For a photon with minimal energy, the value of 'K' is  $3.91521667 \times 10^{-87} \text{ m}^2 \text{ sec}^{-1}$ . The value of 'K' is an index of the space time density. The distance between two points in that space time depends on its density.

As per Siva's classical equation for space time, the relation between mass and space time associated to it is explained by the equation

$$M = 7.065 \times 10^{12} \times d^{1/3} \quad (24)$$

For a photon d must be equal to plank length i.e.  $1.616229 \times 10^{-35} \text{ mts}$ . So as per (24), mass is  $3.848396 \times 10^2 \text{ Kgs}$  and as per (23), mass is  $1.1758673 \times 10^{-68} \text{ Kgs}$ .

So the mass of photon with minimal energy is  $1.1758673 \times 10^{-68} \text{ Kgs}$ . Means, it is increased in side plank diameter to  $3.848396 \times 10^2 \text{ Kgs}$ . It can be viewed as the reduction in the space time density with respect to gravity space time. Since its space time density is reduced, it will be emerged as increment in density of mass i.e increment in mass since the volume is same.

This change in space time inside plank diameter affects lot of factors such as signal velocity 'c', distance between two points 'd', Siva's constant 'K' and even plank Constant 'h'. It will affect the calculation of 'Grand Unification Parameters' introduced for the calculation of 'coupling constants' of fundamental forces [11]. Concerned calculations elaborated in the paper 'Grand Unification concept with Bio-force as the fifth fundamental force' [11].

Thus the explanations furnished in this paper supported the 'analysis on an integrated new concept of space time', interpretation of 'Siva's gravity equation  $Vd = K$ ' with 'Newton's classical equation for Gravitation' and found a relation between Newton's Universal Gravitation Constant 'G' and Siva's Constant 'K'. This interpretation is based on the film Theory of the Universe and its relation with plank time. As 'G' is considered as 'Universal constant', 'K' has been explained as a constant specifically related to mass of any body and space time associated to it. With the application of Siva's classical equation for space time, it is explained that a body of mass 'M' will have a different magnitude in plank scale. Surprisingly it is supporting the notion of space time density variations in the universe and interpreted as fundamental space times related to fundamental forces of nature. With reference to coupling constants of fundamental forces, various factors affecting space time densities such as signal velocity c, distance between two points 'd', Siva's constant 'K', plank constant 'h' associated to that space time have been worked out for unification of all the four fundamental forces and also the unification of 'Bio-Force' with these fundamental forces [11]. Specifically this paper emphasized the necessity and importance of Grand unification constants mentioned in paper [11] and their affect on space time parameters which are based on the value of 'K' associated to that particular space time density. Thus this paper is very important to integrate all the Siva's Concepts and interpreting in terms of already established concepts of gravitation and plank units.

### 3. Conclusions

1. A new equation of gravity has been introduced

$$G t_p \left( \frac{M}{d} \right) = K$$

Where 'G' is New tons gravitational constant

'K' is Siva's constant

' $t_p$ ' is plank time

'M' is mass of the body

'd' is the distance between two points in the space time associated to mass 'M'.

2. The Value of 'K' is an index for space time densities associated to fundamental forces. 'Introduction of new parameters' is necessary to explain the space time densities with coupling constants in Grand Unification Concept [11].
3. This paper emphasizes the 'Film theory of Universe', 'physics of consciousness based on film theory and super relativity' [2] and 'Grand Unification Concept' defined by space time densities [11].

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