

# PIL Theory

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**Abstract**—The curvature space-time by the presence of material, this deformation must present a pattern of deformation, not random. Space is uniform, elastic and any modification that occurs in one part, causes a change in another.

This deformation exists, must be a constant value and is independent of the observer, and relates the amount of matter, the force caused by the curvature of space and surface space. This unit of space is defined in this study as PIL and represents a constant area of space, deformable in the direction and sense of the center of mass of the body. The PIL is curved and connected to the center of mass of the Earth, to get to that point, through all matter, thus forming part of any place between particles at atomic and subatomic levels. At these levels the space between each particle is flat, unlike the macro where the space curves.

**Keywords**—Space flat, Space curved, Unit of space, Deformation.

## I. INTRODUCTION

THE Space is a container of matter and energy, is something, but it is neither matter nor energy, this is where we can state that does not consist of any of the properties of bodies we know today. A star or planet cause a curvature of this space in proportion to its mass, not being a random deformation [3].

Our question appears: "the matter produces a deformation the something that we call space empty and that is something that is deformed and therefore is somewhat deformable". Therefore, if something is deformable could be measured.

## II. UNIT OF SPACE

We consider a unit value of space, which we call PIL (Longitudinal infinite planes). This unit represents a value comparable to what would be the spaces of a network, where the bodies (matter) and are deformed spaces stretching between the network. This network is a unit value separation PIL. If matter such as deformation occurs by planet, this PIL is deformed and gravity is made.

In the next planet, then the PIL is stretched and curved, by the weight the planet, deforms the PIL, gravity is greater then. As we move away from the PIL planet will recover its original shape and therefore gravity decreases.

By the mass occurred space warp, the PIL stretches and bends, but maintaining constant area. The gravitational constant that appears in the law of gravitation and relativistic theory is a fact that does not have much in mind, but this time

is important because it defines a constant value within the space [1].

This reference that there is a value which is constant and not depends on the observer, and a proportionality relating the subject with the deformations that occur in the space. The gravitational constant values provide a relationship between force, mass and surface.

We have units:

$$PIL = G = 6,67384 \times 10^{-11} \text{ Nm}^2 \text{ Kg}^{-2}$$

$$PIL = G = 6,67384 \times 10^{-11} \text{ Force.lenght}^2 .\text{mass}^{-2}$$

If G is constant and if length x length refers to the area of PIL, which remains constant, we note that increasing the mass, you must increase strength.

Thus we see that increasing the mass of a body, increases strength i.e. increases the force of gravitational attraction.

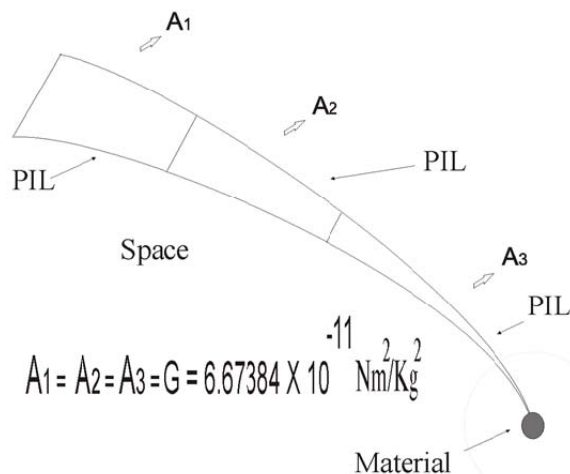


Fig. 1 Form that the PIL in the warping of space.

The deformation presents PIL area, by the presence of a mass, returns to its previous state by changing the body position in space. PIL is stretched so that its area remains constant, reducing its width as it approaches the body.

## III. FEATURE SPACE INSIDE AND OUTSIDE OF INSIDE THE MASS

The PIL reaches the inside of the body, but has different curvature as it nears the body, the body surface and in the interior.

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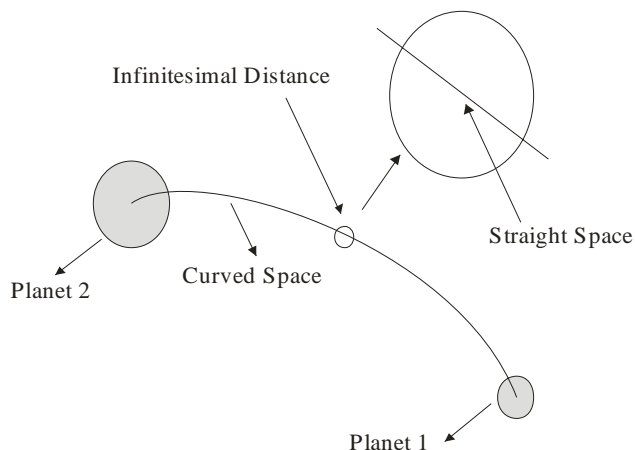


Fig. 2 Representation of curves in space and straight space between distances infinitesimal

Through space and all matter is the same that is between two planets that we found between atomic particles that forms the subject of such bodies.

The space between two planets is curved, but by making infinitesimal distances, the curve is observed as a straight portion. So we can define that scale space is curved, but between atomic particles the same space is straight.

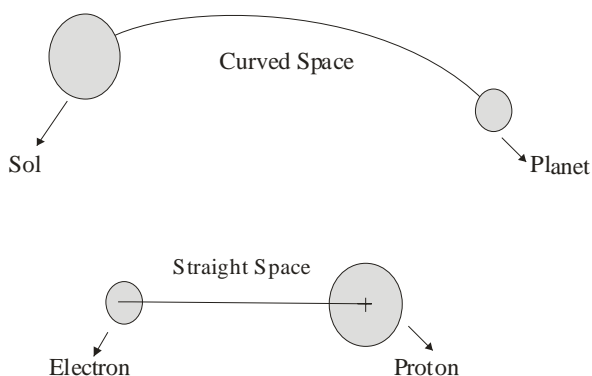


Fig. 3 Curved Space and Plane Space

#### IV. THE DISCONNECT WITH THE PIL PRODUCED BLACK HOLES

By increasing the density of the body can cause a black hole. The PIL areas remain constant, but are tending to stretching a line (already presented area where the length is very large with respect to the width) and the space have tend a shrinks.

Considering the gravitational force formula [5];

$$F = G \frac{M_1 \cdot M_2}{R^2} \Rightarrow K_g \cdot \frac{m}{s^2} = G \frac{K_g \cdot K_g}{m^2}$$

$$G = \frac{m^3}{s^2 \cdot Kg} = Length^3 \cdot \frac{1}{time^2 mass}$$

We assign a value to the exponents n

$$G = \frac{X^{n+1}}{S^n \cdot m^{n-1}}$$

Now we give values for n, obtaining only for n = 0 the value of G is not time dependent.

$$G = \frac{X}{m^{-1}}$$

The value of the PIL when n = 0 is not time dependent.

If we divide both sides by Volume (V), we get equation which relates the effect of density on the deformation of the PIL.

$$\frac{G}{V} = \frac{X \cdot m}{V} = \frac{X}{\partial}$$

$$G = \frac{V \cdot X}{\partial}$$

$$G = \frac{V(\text{Volume}) \cdot X(\text{Length})}{\partial(\text{Density})}$$

This indicates that if the density increases, the volume of the product by the distance must also increase to maintain constant G. Then we find that:

- Growing the distance (X), volume (V) increases
- Decreasing the distance (X), volume (V) increases
- Decreasing the distance (X), volume (V) decreases
- Grows the distance (X), volume (V) decreases

In cases (a) and (b) the volume does not grow near a black hole, (c) indicates that the distance decreases, so it is not valid for the PIL stretches. Therefore the black hole the large increase in the density of matter produced in the space to reduce the volume and increases distance. Black hole in the body where the density is very large, the value of n = 0, hence the density of the body is very large, the space covered is very large, the volume occupied by the PIL increasingly decreases, depending not time [2];

$$\frac{m}{s^2} = \frac{G \cdot Kg}{m^2}$$

Therefore we have

$$\partial = \frac{Kg}{m^3}$$

$$G = \frac{1}{\partial \cdot S^2}$$

As density increases and a constant  $G$ , the time decreases. In case of extreme density in the minimum time, but not zero. While there is a connection to the PIL this time is very small, in the black hole singularity, the PIL is offline and not time dependent.

To see how this disconnects arises we analyze how the space interacts mass:

As mentioned above the space, goes to the center of the body, so that the whole mass crosses the PIL, occupying the space between atomic particles that make up the body's mass. Since the density of the body is by the same mass and volume is composed of the sum of the volume occupied by all the particles and the volume of the body that occupies the space that separates all particles. The mass and therefore the density, warps space, but when their density increases to considerable values, PIL deformation becomes critical. The spaces between the particles are reduced such that the forming protons and neutrons interacting neutrons, which collapses and the volume occupied by the space between the particles becomes zero. The density of the body is formed by its mass and volume of the particles alone. There is no space between the particles; the PIL is disconnected from the body. We are in the presence of a singularity.

$$V = V_e + V_m$$

$V_e$ : Volume of space that lies between the particles

$V_m$ : Volume occupied by the mass of particles

$$\partial = \frac{\text{mass}}{\text{Volume}} = \frac{\text{mass}}{V_e + V_m}$$

A star collapses a form neutrons, the space between particles decreases disappears and everything is mass, at this time there is no longer occupied the space volume and density is greatest. [4]

$$V_e = 0$$

$$\partial = \frac{m}{V_m}$$

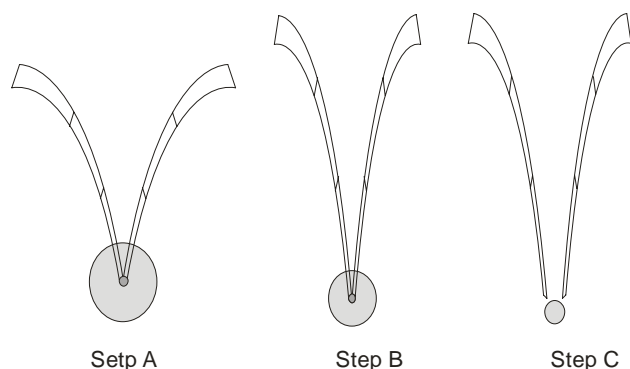


Fig. 4 Representation of the stages by density increases. In the star of deformation and rupture of the PIL

In Step (A) we can see the star producing large deformation the PIL, gravity lines here all target the center, there is continuity in space.

For Step (B) begins to modify the density of the star, the increase thereof leads to greater deformation PIL begins to stretch, but continues the connection with the body, we can find room within the star particles still move freely. Time is very small, but it exists

In Step (C) we find that the star collapsed, the electrons collided with protons and transformed into neutrons, which are together, while there is space possible, only matter exists.

Since no space between the particles, the PIL is cut off and the body is opened leaving a hollow space. In this area the value of  $n = 0$  which indicates that  $G$  is not time dependent. This is where we are in the presence of a singularity, a "black hole."

## V. CONCLUSION

Space passes through matter, is curved on a large scale, but between atomic articles, the same space is flat.

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