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Time Map

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Abstract**—**The interaction of mass will determine the curvature of space-time, may determine that events proceed at different rates of time at each point in space, so each has a corresponding gravitational potential time. So we can find different values of gravity (g), corresponding to different times (t), thus making a "map of time in space." The space-time is curved by present mass, causing a force of attraction towards the body, but if you invest the curvature of space-time, we find that this field is repulsive: Obtaining negative gravitational forces and positive gravitational forces respectively.

Keywords**—**Space-time, time, positive gravitation, negative gravitation.

I. Introduction

THE events that are part of our existence can be ordered sequentially, using time as a parameter. We can then define a series of past events and others that will occur in the future. When talking about events that are happening in classical physics easily defined as the present, however in relativistic concepts, the differences appear to define these simultaneous events depend on the observer [4].

When we talk about gravitational time dilation given in General Relativity Theory of Albert Einstein, we refer to that time passes at different rates in different gravitational fields: Set a flat space-time and the dough is responsible of said curvature, and a gravity field sensing. These different rates of time can be detected by the use of atomic clocks located at different heights, thus different potentials to gravitational different observing times. Considering this, the space is curved according to the presence of mass and at each point thereof can find different gravitational potential, also determining a time at each of these points and thus different times in space. In the Earth's surface have the course of time between each event is higher compared to the measured time at another point located outside the land where time would be less [5].

The interaction of mass will determine the curvature of space-time, may determine that events proceed at different rates of time at each point in space, so each has a corresponding gravitational potential time.

This time is defined by a position in space, the observer on the Earth's surface observed that his clock moves slower than the observer is more height, which can be corroborated by a third observer participating in the events.

The following table shows the values of the gravitational acceleration versus distance from the center of the Sun and Earth.

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TABLE I
Gravity Acceleration According to the Distance

EARTH		SUN	
Distance from the center (km)	Gravity (m/s2)	Distance from the center (km)	Gravity (m/s2)
6371	9,8219	696000	274,0372
6450	9,5828	750000	235,99,64
7871	6,4419	850000	183,7342
9871	4,0959	1100000	109,7090
12371|	2,6077	1500000	58,9991
13871	2,0742	1950000	34,9107
15000	1,7737	2100000	30,1015
20000	0,9977	2400000	23,0465
50000	0,1596	2883680	0,1596

As one move away from each body, the gravitational pull decreases, noting that at different distances, different gravitational acceleration values obtained can reach to coincide. A distance of 2,883,680 km Sol determines a g = 0.159638 m/s2, g is the same body would experience a 50000 km from the earth.

In curved space-time due to the presence of gravitational masses find different values that correspond to different times.

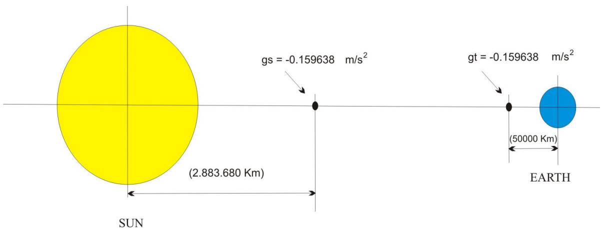

Fig. 1 At different distances, gravitational acceleration v can reach to coincide

II. Time by the Gravity

The events occur consecutively. S1, S2, S3...Sn and each of these S, corresponds to a time t1, t2, t3...tn respectively. The time measured in one place, we will call t1, which corresponds to g1, the latter representing the point and gravity do the same for a 2. The S1 event occurs with a time t1 greater than t2 in the event S2. So we can find different values of gravity (g), corresponding to different times (t), thus making a "map of time in space."

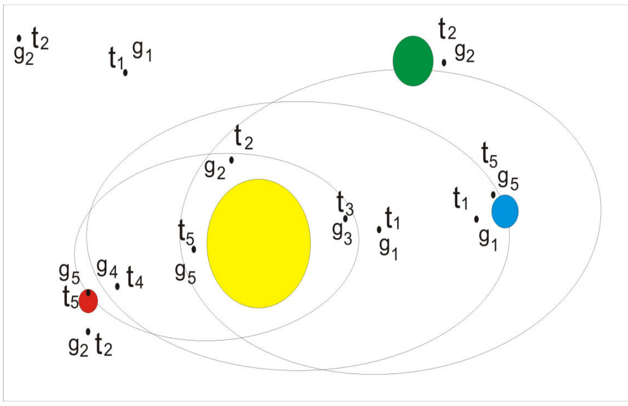

Fig. 2 Schematic representation of gravitational fields and times by the curvature of space-time in presence of bodies [3]

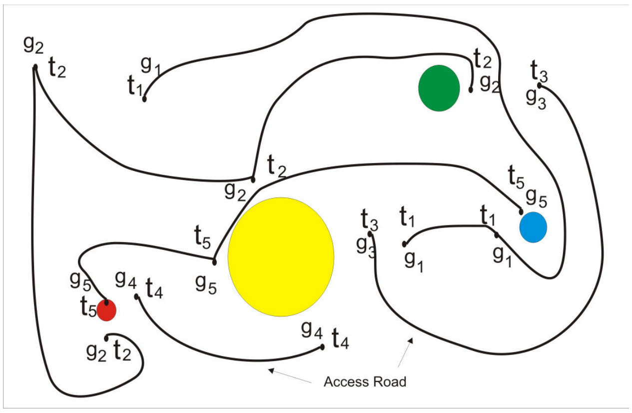

Fig. 3 "Time Map". Schematic representation of the connection between time in space-time

The relationship between events in space-time can occur in different ways:

- The event S2 affects the occurrence of the event S1, whereby one would anticipate that the S are related. A space ship going from one place to another and to go through the place 1 with a t1, must first pass through the place 2 in t2, t1 is being greater than t2.
- The occurrence S2 of the incident would not affect S1, which one would anticipate that the S are not related. A space ship passes through the site 1 and is directed to another distant location, while in the place 2 other event occurs in any t2.

III. Inverse Deformation of Space-Time

A space ship using the gravitational effect for travel, need counteract gravity, causing a repulsive effect. This reverse gravitational force must be equal or greater than the gravity of the place. If this space ship is found in the earth's surface, gravity causes the mass of the earth, is g1 = -9.82 m/s2, here S1 occurs at a time t1. The antigravity effect to the craft occurring on the earth's surface is an event that will call it antigravity Sa.

The product gravitational by field curvature of space-time in the presence of a mass causes an attractive force on the body mass [2], but if you invest the curvature of space-time, we find that this field is repulsive. It is an inversion of the curvature of space-time that changes the direction of the gravitational force.

That space-time is inversely curve creates a gravitational force in the opposite direction (repulsion), but time does not change direction, not supported a negative time.

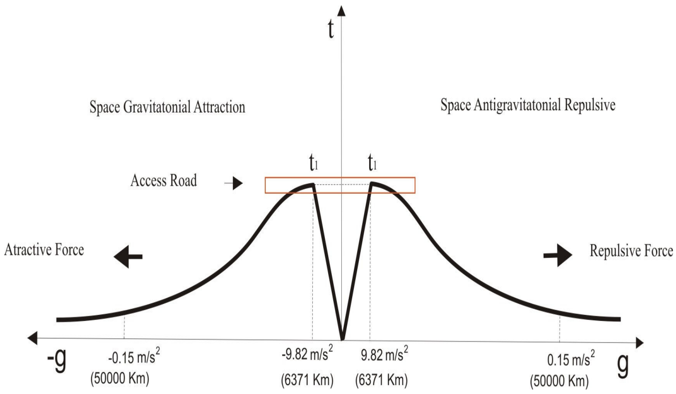

Fig. 4 Representation of the space-time terrestrial gravity

It represents the time, terrestrial gravitational repulsions and attractions gravitational in the space respectively positive and negative. On the left negative space with gravitational forces and right space-time with positive gravitational forces the connection between them is the massive body, however in order to pass from one to another space must go through the timeline. This is a time to share and belongs to both spaces, where the gravitational force either attractive or repulsive product of the curvature of space is connected by "the Access road".

This way does not depend on the direction of curvature, but depend on the gravitational field strength at each point of the curvature of space-time times find paths that are connection between the two spaces.

IV. Antigravity

If a ship wants to escape from the Earth's surface (g1 = -9.82 m/s2) must reverse the curvature of space and go through the "passageway t1" antigravity space which acquires a repulsive gravitational acceleration (g1 = 9.82 m / s2). If the ship wants to increase its output of planet antigravity effect will increase and move to another way of time allowed [1].

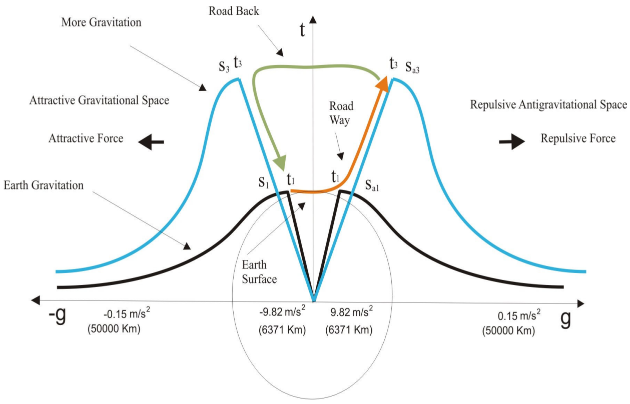

Fig. 5 The steps with gravity and antigravity in space-time between Earth and another body

Fig. 5 shows that the space ship on land with a gravitational field has an S1 with t1 and then passes a field with t1 Sa1 antigravity, but spends a greater Sa1(Sa3) antigravity field.

The observer on the space ship observed that his clock moves slower than the observer is in the earth's surface. When you want to get away from the earth's surface, the spacecraft inversely deformed space-time and repulsion effect appears when the space ship decides to return to earth again negatively change the warping of space-time and shows the effect of attraction, but should take road reverse step.

In the universe coexist the two space-times and massive bodies are originating these curvatures:

- The negative gravitational attraction causes that makes bodies are attracted
- The other produces a repulsive gravitational energy that produces the expansion of the universe.

Both space-times do not touch; you cannot go from one to the other how we know. If we made a trip from earth to the moon, we are experiencing physically the two space-times, which uses the propulsion currently known, however if the space ship would have the technology to change the curvature of space, traveling over the same using repulsive gravitational force.

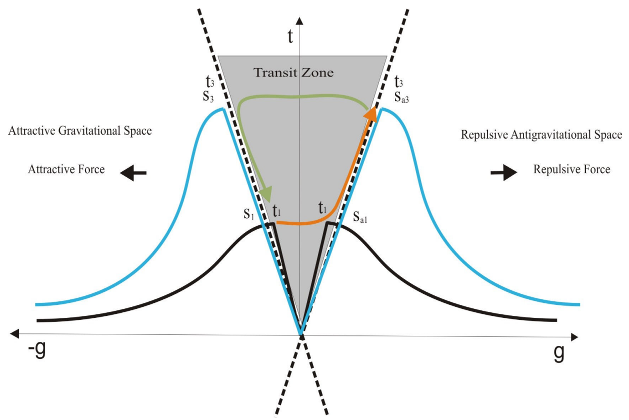

Fig. 6 The “Transit Zone” with gravity and antigravity in space-time between Earth and another body

The time that is associated with an event, is a channel to move from one space to another. These channels must be the same in order to connect each space, if we start from the space with attractive gravitational forces time to, we can go through this "passage way" or weather channel, reaching into space with repulsive gravitational forces at the same time to. Move between one or other space, means using attractive or repulsive forces, but the effect of attraction should take the road to reverse step.

If we consider that an observer is moving or not, the events occurring in any case, what unites the events is not the observer, but time. This time is the connection between each event

In Fig. 6 we can see areas. A space gravitational attractive forces and other antigravity space with repulsive forces. The intermediate zone we call "transit zone", here the time is not deformed.

V. Conclusion

That space-time is inversely curve creates a gravitational force in the opposite direction (repulsion), but time does not change direction.

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