Gravitational Energy and Its Field

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Abstract

Gravitation is a force which binds all of us with this Earth. After two years of research, my friends and I came to a very interesting conclusion-"Gravity force (g) of the Earth is due to its revolution on its own axis".Reason – Since the Earth is revolving around the Sun, a force is being exerted by the Sun on the Earth. This means there has to be an energy which the Sun is providing to the Earth. We know that "energy can neither be created nor destroyed."Hence this energy has been changing its form to another.

Our earth is utilizing this energy in two ways-

1) By rotating around the Sun.
2) And revolving on its own axis.

This energy is producing a force known as gravitational force, which is binding us.
Recently we also noted that if a body is not doing any kind of motion then it is not capable of applying any force on the bodies nearby.In simple words "a body can exert a force on another body if and only if it is in motion".Thus a new concept of "gravitational induction" is introduced. Thus, if there is a body whose not doing any kind of motion and comes into a region of another body's gravitational effect then it is capable of generating its own field due to gravitational induction.

Keywords: Energy, force, gravitation, gravitation induction, graviton, motion, string theory.

1. Introduction

This paper is a research work on planetary motion of the Sun and Planets; their impact on each other's avitational forces and fields. Newton has explained the concept of gravitational force however he was unable to find the source of energy responsible for this gravitational pull. This paper attempts to understand the source of gravitation force.The theory of gravitation was first propounded by Newton. He devised in his search of reason for the apple that had fallen on his head. He said that there is force that the earth exerts on the objects and pulls them towards the Earth's centre. With the development of superior methods the force of gravitation could be calculated at different points of the Earth. Einstein too postulated his own theory of gravitation but neither of them pointed out the exact source of this energy.

2. Explanation

Graviton particle- In physics graviton is a hypothetical particle which mediates the force of gravitation in field theory. In physics graviton is expected to be mass less since the field of gravitation is infinity. Gravitons are postulated because of the great success of intermediate particles like photons in electromagnetism; strong interactions by gluons and weak interaction by W and Z bosons.Newton's theory of gravitation- According to Newton's theory of gravitation 'Gravitation force between any two bodies is inversely proportional to the square of distance between them'.

1) Many others theory like string theory came forward with their reasons but had limitations of their own. Such as according to string theory all the different manifestations are just one basic object known as a string.So if we take a small point which has no internal structure. A point cannot do anything but move. But, if string theory is correct then under extremely powerful microscope we would realize that the electron is nothing but a tiny loop of string.So if whole of the string theory is correct than whole of the world is made up of strings which isn't so. All the above explanations are based on hypothesis except Newton's. According to our theory "Earth's gravitation is due to its revolution on its own axis". Earth is revolving around the Sun in its elliptical orbit; the Sun is applying a force on the Earth. Since a force is being applied by the Sun on the Earth it means the Sun is also providing energy to the Earth. Now that energy is used by the Earth.

1) When it rotates around the Sun in its elliptical orbit.
2) And when it rotates on its own axis.

In the first case, as per the third law of Newton for every action there is an equal and opposite reaction. Hence when the Sun applies force on the Earth, there is bound to be force applied by the Earth on the Sun.The Earth rotates around the Sun in its elliptical orbit utilizing the energy from the Sun. Whenever energy is used force is produced. This force counters the attractive force from the Sun. Hence the Earth keeps on moving on its axis. When the Earth rotates on its axis a small force is produced by the energy of the Sun. This force is called gravity force (g).In the second case "a body can exert a force on another body if and only if they are in motion". For example a body which is not performing any kind of motion, it will not have any kind of energy for creating its own field. In this situation, this body cannot attract any other body. In contrast, if a body does some kind of simple motion, energy will be produced. A small part of this energy will be utilized for creating gravitational field around the particle's body.Hence we concluded that if all the objects in the space stop their motion, there will be no force of attraction between them.An important question has been raised here- how do stationary objects create an attractive force between them? For this we have introduced a new term 'Gravitation Induction'. According to Gravitation Induction " if any stationary body comes in the gravitational field of a moving body, then the stationary body gets induced by the field of the moving body and thus it is able to creates its own field".

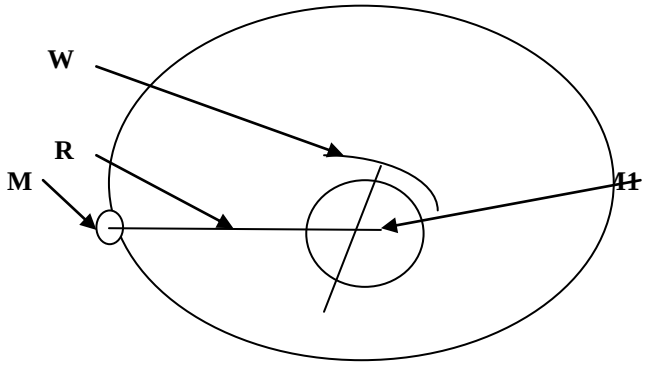

Figure (1)

In the above figure a body of mass M1 is placed at the centre of the circular orbit of radius R. The bigger body is rotating on its own axis at an angular speed of w rad./sec. Whereas the smaller body is rotating around the bigger body and has a mass of MMass of bodies is taken in kg. Radial distance between both the bodies is taken in meters. Whole of this system is taken in vacuum where no heat loss and no friction loss are counted. Hence, force between these two bodies will be directly proportional to the product of their masses with product of radial velocity of bigger body and linear velocity of smaller body divided by the square of distance between them.

F is directly proportional to (M x m x w x v)/ R x R

F = (GB x M x m x w x v)/ R x R

Where GB is my constant and its value is equal to 5.829 x (10) to the power (-14).

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