

Space - Time Relativity

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Abstract

Einstein postulated that the curvature of space would cause even light to bend through it- an electromagnetic wave length that traditionally follows a straight line. So, it seems space indeed was curving around masses in Space. If this was gravity of the result of gravity, no one is still sure. But if light was affected it seem to that other or all energy wave lengths might be affected. If light was curving then it was slowing. Might be the same be true of Space? Then if time and space were continuous, might it then also be true of that greatest mystery/Time? Could we slow time by bending space?

The corner stone of Einstein's Relativity was of course $E=mc^2$, That is , energy equals mass times the speed of light squared. It is actually a simple equation, but its manifestations are universal and monumental. It means that there is an uncreditable amount of energy in any object, if we could just get it as in the nucleus of its atoms. Relativity's basic tenants of space time and energy being continuous one step closure to the fact.

Key Words: Space and Time, speeding cars, Albert Einstein, Spinning of the Earth, Four-dimensional world

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I. Introduction

Disappearances have confounded and entranced people for thousands of years, from Enoch's sudden disappearance to Ambrose Bierce's popular 1880's articles of people disappearing while simply walking in a field. For one thing is consistent with in the stories, whether true or false – a vortex or funnel are often written in. For Bierce, these were funnels within a prairie of anywhere, into which an unsuspecting person walked and held in a different time or space, though certainly Space-Time warps were not even a part of scientific or popular vernacular in 1880s. For Elijah, he was taken away in a "fiery whirlwind"– a vortex. For Ezekiel's vision whirlwinds turned within whirlwinds

With the twentieth century there came mankind's ability to support a thriving scientific culture. This allowed men of science to start contemplating such things as Space- Time Warps.

The most famous to give rational body to the idea of Space- Time Warps was undoubtedly by Dr. Albert Einstein. One of his own quotes is "Science is merely the refinement of everybody thinking".

He imagined himself speeding in space and came up with Relativity. He postulated that time was continuous with space.

PROBLEM DEFINITION AND APPROACH

An example may help us to understand this. Two speeding cars pacing each other seem not to be moving at all to those inside each car. But to a person standing on the side of the road, the cars zoom past at fantastic speed and are gone. But to those inside, life would remain the same. They would see the next car pacing them. It would be the same because they are propelled at the same speed as the cars. Our planet is like one of these cars. It is propelled in space and us along with it.

The car can be considered in a progression of time as well. Move anywhere in the car you are fine or jump to the next car. It is alright as long as you move to anything moving at the same progression. But try and step out of the car while it is moving and you are left in the dust. The car speeds out of sight. Your world has gone. You are now in a different progression. You can't get back until you accelerate fast enough to overtake that car. Now in the above examples of speeding cars obviously they can't go fast enough to truly bend space and lock one into a different progression of time. But would it require huge mass and speed to do it? The planet was indeed doing it slightly.

As the space age dawned further proof came of Einstein's concept of continuity of time and space. Atomic clocks placed at orbital heights recorded time passing just slightly faster than those at sea level. Where gravity and hence the curvature of space was greatest, time moved more slowly, where it was not more quickly. The passage of time as we record an experience it here was actually slower in space. Mass such as planet did seem to bend space before it and with this it did seem to slow time fractionally. Theoretically it was proposed the greater the curvature of space, the greater would-be time slowed.

The atom is often linked to a mini solar system most of its space. It is always surprising to realize that the structure of the atom is energy in a confined space between revolving charged particles. The electrons, protons and the neutrons are only a small part of the atom. It is the space between them that is ionically the substance. Space in this case is filled with electromagnetic energy. Therefore, all matter is not only mostly energy but it is mostly space.

All atoms are in vortex kinesis as it was stated at the beginning. Therefore, all matter is the same level of vortex kinesis. We already know that the great spinning orbit of the earth and its great mass affects time fractionally. At the surface as compared to orbital heights time is slowed slightly. But what if you would increase the speed at which the earth spun fast enough to even bend more before it? Could we then not slow time even more? It would seem so. But it is impossible to do that. Earth is too great a mass for us to manipulate.

II. Conclusion

In physics space time is a mathematical model that combines the three dimensions of space and one dimension of time into a single four-dimensional manifold. Until the twentieth century it was assumed that the three-dimensional geometry of the universe (spatial expression in terms of coordinates, distances, and directions) was independent of one-dimensional time. the Physicist Albert Einstein helped the development of the idea of space time as part of his theory of relativity. In physics space time is a mathematical model that combines the three dimensions of space and one dimension of time into a single four-dimensional manifold. Space – Time diagrams can be used to visualize relativistic effects, such as why different observers perceive differently where and when events occur.

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