

Origin of gravity

"Reason of curved space-time around the earth"

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Abstract:-The goal of this article is to present the Origin of gravity and why space time curved around the massive bodies like earth, sun? We know that energy always flow's from high level to low level Empty space have an Energy (vacuum Energy) which is every where in the universe , an atom's also have vacuum Energy due to its Empty space so earth also have a vacuum Energy but earth's vacuum Energy is less than space due to it's mass, as we know that Energy always flow from high to low level so vacuum Energy (space-time) flow's from space to Earth that's why space push's us down on Earth.

Keywords: Vacuum Energy, Energy Difference, low of thermo dynamic, Energy flow, Curvature of space – time, Density of Earth, Black holes, theory of General relativity, volume of Earth.

Introduction:-

(i) Vacuum Energy of space:-

According to the general theory of relativity Space is the form of Energy that Exit's throughout the Entire Universe.

Vacuum Energy of space

$$E_{\text{vac}} = KV \quad \text{----- (1)}$$

E_{vac} is the vacuum energy of space

K is the Constant

V is the Volume of Space

(ii) Vacuum Energy of Earth :-

Everithing in this incredible , vast universe Are almost Entirely 99.999% Empty space so Earth almost have Empty space But

Earth's Vaccum Energy is less than outer space.

Vacuum Energy of Earth

$$E'_{\text{vac}} = KV'/\square_e m \quad \text{----- (2)}$$

\square_e is the Density of Earth

K is the Constant

V' is the Volume of Earth

m is the mass of Earth

We know that Energy diffrence coused work and potential Energy , we called this potential Energy and work is '**gravity**'.

According to eq. (2) volume of Earth gets higher with lower density and mass. This is Causing the Energy diffrence between Earth and space.

Method's:-

Energy of space (vacuum Energy) :- E_{vac}

Vuum Energy of Earth : E'_{vac}

So Energy diffrence,

- $E_{vac} - E'_{vac} = F$, □ □ □Energy diffrence Cause

- from equetion (1) the force and potential Energy
 $Kv - Kv'/\rho_e m = F$ ($E_{vac} = KV, E'_{vac} = Kv'/\rho_e m$)

- $K(v - v') = F\rho_e m$

This Equation's show that,

$k_v(E_{vac})$ is Alway's bigger than $k_v'(E'_{vac})$ Density of Earth cause this

Energy diffrenec.

for black hole's ,

$$E'_{vac} = 0$$

And , $E_{vac} \gg E'_{vac}$

So , $E_{vac} - 0 = F$

$$E_{vac} = F$$

Results:-

Gravity is force wich caused by Energy diffrence of vacuum that's why everything fall on Earth,

This is the "Origin of gravity"

Conclusion:-Gravity is not pullngus down but space is pushing us down by potential Energy that caused by Energy difference of vacuum. This article explained the Movements of planets and satellites not only in our solar system but also in other systems as well. it explained why the Earth and other planets where spherical or nearly spherical in shape.