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Simplification of the unified field theory

Abstract

It is important to simplify theory, the simplest way to get a theory is not always the easiest to find, here I not affirm to have found the easiest way to simplify the unified field theory, it's just that I see its simplicity.

It is important to have a good idea of the foundations of a theory, here I show a relationship between the gravitational field and the fields of electric and magnetic forces, for the fields of nuclear force or other, some may see it be a link with the force of Planck or force fields can be seen indirectly in one of my three small main equations.

Albert Einstein made the connection between the gravitational force fields and relativity, this relativity which fondement is simple to understand if only we imagine a vector velocity of light that deflects passing near a planet, vector addition does can not exceed the speed of light according to the second postulate of Einstein, it is invariable speed of light, so it takes a contraction of distances theorem Pytagore thus demonstrates that the distances of the shrinkage factor is a ordinary cosine.

Let's start with the Gauss theorem

I am obliged to note that the simple analysis of a bar electrically charged uniformly falling on a planet provides, the equation of the linear lightning and the equation that unifies gravity and electromagnetism and serves has basic understanding of phenomena.

One can use the Gaussian theorem to find the constant electrical field E to a positive electric charge Q uniformly distributed over a length L bar, where R is a distance perpendicular to the bar, it has been;

$$Q = (e0)\ E\ (area)$$

the surface being a radius R of the imaginary cylinder surrounding the bar, this

surface is; area = (2pi) RL

e0 is the permittivity constant of the vacuum and is $(8.85)\ (10^{-12})$ F / m, then;

$E = Q / [(e0) (2pi) RL]$

This bar falls on a planet and if it gets near the surface of the planet, it approaches the absolute rate of release v.

The electric field may be defined in volts (V) divided by the distance R, writing V / R, then;

$E = V / R = Q / [(e0) (2pi) RL]$

$V / R = Q / [(e0) (2pi) RL]$ equation 1

Consider that the release rate v is equal to the length L divided by the time t,; $v = L / t$

Mutiplions the left side of equation 1 by v and its member right by L / t, if Q / t = the current I, then the equation 1becomes ;

$(V / R) (v) = I / [(e0) (2pi) R]$

Multiply the numerator and denominator of the right side of this equation by u0 is the constant magnetic permeability of vacuum and is $(4pi) (10^{-7})$ vs / am, were then;

$(V / R) (v) = (u0) I / [(u0) (e0) (2pi) R]$

We compared the expression of an electric field has a magnetic field at a distance R from the bar because;

(U0) I / [(2pi) R] is a magnetic field, then as the speed of light is squared; $(C^2) = 1 / [(u0) (e0)]$, then this equation becomes;

$(V / R)(v) = (u0) I (C^2) / [(2pi) R]$

this equation can represent the approximation of the linear equation lightning, eliminating R and dividing each member of this equation by v, was then;

$V = (u0)\ I\ (C^2) / [(2pi)v]$ Equation 2 (the linear equation lightning)

the constant $(u0)\ (C^2) / (2pi)$ is about $(18)\ (10^9)$ (Volt) [(m / s) / (amp)]

Reset R in the denominator of each member of this equation, for a comparison of the fields, was;

$V / R = (u0)\ I\ (C^2) / [(2pi)\ Rv]$ Equation 3 (comparison equation between the electric and magnetic fields)

To compare also with the gravitational field of the planet, simply multiply the numerator and denominator of the right side by v, we then;

$V / R = \{(u0)\ Iv / [(2pi)\ R]\}\ [(C2) / (v2)]$ Equation 3 (Equation unifying gravity and electromagnetism)

Here V / R is the electrical force field, and $(u0)\ Iv / [(2pi)\ R]$ is the magnetic force field,

$(C^2) / (v^2)$ is the square root of the ratio of the Gravitationnlle Force Planck the planet gravity

because the Plank Gravitational Force is;

Gravitational Force Planck = (C4) / G ,

between two mass stars M identical;

(force of gravity between two identical planets of mass M) = (v4) / G

G is the gravitational constant and v is the escape velocity for the Earth v to a small mass on its surface is 11.2 km / s, the gravitational force ratio between two identical masses is equal to the gravitational force field report;

Evidence for two identical masses and a center distance equal to D center;

$GMM / (D^2) = GGMM / [G (D^2)] = (1 / G) [(2 (1/2) (GM / D))]^2 = (1 / G) [(1/2) (v^2) + (1/2) (v^2)]^2 = (1 / G) [(v^2)]^2 = (1 / G) (v^4)$

v is the rate of release of two identical masses separated by a distance equal to D center center and here our bar loaded v reaches this release rate, it is not necessarily made on the surface of the planet, when it falls, but it can reach this velocity v and it is this speed to remember, for example if two identical planets Earth touch, the center-center distance equal to the diameter of the Earth, in which case the speed of liberation is equal to about 5595 meters per second, or about half the rate of release of a small mass on the surface of the Earth is about 11.19 km per second,

for the gravitational force field simply divide by the mass M and reporting are not changing.

In the case of the gravitational force of Planck, the center-center distance between two identical masses M of the stars could be much smaller and the density of mass planets could be much larger, this so that the release rate is equal is the speed of light C is the main difference between these two gravitational forces, the ratio eliminates the masses M and G gravitational constant.

Also note that the report $(V^2) / (C^2)$ is found in the shrinkage factor distances in special relativity, this report may be replaced by the following ratio (magnetic force field) / (electric force field).

Example to explain the basis of relativity;

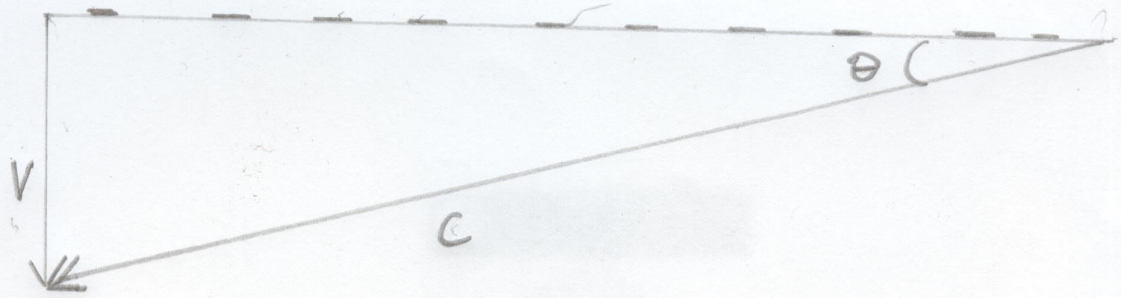
When light passes close to a planet it is deflected, the velocity vector V can represent this deviation as represented by the below scheme, as the vector addition does not exceed the speed of light, then it must be a lenght contraction which is represented by the cosine of the angle of deviation as show in the diagram. The speed V is simply the escape speed near the planet or passes the ray of light.

For the introduction and simplification of the unified field theory simply consider that:

$(V^2)/(C^2)$ = (magnetic field strenght)/(electric field strenght)

This ratio is also equal to the square root of gravitation force report.

This equation can be obtained by simply analyzing a bar charge that falls on a planet.



$$\frac{V}{c} = \sin\theta \qquad \sin^2\theta = \frac{V^2}{c^2}$$

$$\sin^2\theta + \cos^2\theta = 1$$

$$\cos^2\theta = 1 - \sin^2\theta$$

$$\cos^2\theta = 1 - \frac{V^2}{c^2}$$

$$\cos\theta = \sqrt{1 - \left(\frac{V}{c}\right)^2}$$

Reference;

Gauss theorem of Pythagoras

Gravitational Force Planck

Special Relativity and General Relativity of Albert Einstein

Thanks

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