

The Right Mass Equation

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Abstract: This article attempts to describe how the equation of mass should be denoted for the fundamental particles with a different approach. It argues on the basis of mass energy equivalence.

Keywords: Mass Equation, Gravitation.

I. INTRODUCTION

Among the physicist community right from the beginning of Copernicus, Galileo and Kepler the Gravity is considered to be a vital important focal point but poorly understood, and it seems to be a strange entity. Its existence is unquestionable but where and how its presence could be detected in what form is an endless stupendous task for ever. Without the presence of Gravity the total universe would not have been evolved. For centuries together numerous efforts have been taken to discover its identity with Newtonian mechanics and the powerful tools of Einstein's General theory of Relativity and the Quantum Mechanics. And this article too is one of the efforts in this respect.

II. MAIN ARTICLE

Gravitation→Mass→Gravitation

From the following equations we find a surprising phenomenon which is the Mass- Gravity relations.

$F = -GMm/r^2$ (Force of gravity between two massive objects)

$U = -GM/r$ (Gravitational potential)

The Gravity notation bears the negative sign which means the gravity behaves in contracting order. Generally it is known as Mass and Energy are the same. But unless the energy is contracted to the extent of velocity of light squared (c^2) which is intended to be $(-c) (-c) = c^2$ it cannot become mass. The ' c ' indicates the divergence but the ' $-c$ ' indicates the convergence, the negative divergence. So instead of ' $-c$ ' directly the convergence notation ' G ' shall be used for all contracting orders. The correct symbolic expression describes the right precision meaning.

Let us explain it as follows. If a mass object is made out of energy only it will fly off instantly. But it is not, because some other phenomenon contracts the energy into mass which is the intrinsic contracting nature of Gravity. That is why the identity of Mass and Energy is maintained independently.

The mass representation of subatomic particles is being calculated by using GeV/c^2 in terms of $E=mc^2$. For 'energy derivation' and 'mass energy equivalence' using the equation $E=mc^2$ is perfectly right. But for mass derivation $m=E/c^2$ is not right. Because the light velocity ' c ' is not a numerical constant but a proportionality constant this depends on the permittivity of free space and permeability of free space. Maxwell's equation predicts that $c = 1/\sqrt{\epsilon_0 \mu_0}$. So it represents the property of propagation. As per the Einstein's general theory of relativity, gravity is the equilibrium counter state of electromagnetic radiating energy. So the speed of light ' c ' is exactly equal to the speed of gravity ' G ' which is on the contracting part. Thus $m=E/G^2$ is precisely right. So using $m=E/c^2$ represents only the Relativistic mass.

The propagation property notation ' c ' does not have deserved to express a mass derivation.

$$E = mc^2$$

$$E = hf$$

$$mc^2 = hf$$

$$m = hf/c^2$$

'f' the frequency is related to relativistic. So the corresponding mass is also associated to relativistic.

But we want the Gravitational, Inertial or Rest mass. Contracting form of energy is matter and the expanded form of matter is energy. The Energy must be contracted, and then only it is able to become mass. Gravity is the contracting phenomenon. So let us replace the 'c' to 'G' and follow $m = E/G^2$ for right precision mass derivation. Always precision is required in all respect to improve our understanding. It describes the Energy is contracted by Gravity and the right mass is obtained. This gives us the simplest, more accurate and comfortable representation and logically indicating the mass of subatomic particles. This does not break up the basic mass concept and fits well. For example the mass of Top quark is $175 \text{ GeV}/G^2$ and the mass of Higgs is $125 \text{ GeV}/G^2$ and so on.

III. CONCLUSION

When considering, the Gravity has the contracting property let us use the correct notation of 'G' for all mass derivations in feature which make sense.

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