New value for the Higgs mass.

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Abstract.

The Higgs mass is approximately 0.5 TeV/c^2 . This is a new predicted value. This mass value for Higgs is calculated with a new dark energy force formula, which is performing in the hypothesis of the Double Torus, a new cosmological 'model' for the universe. This 'model' embeds the Big Bang framework. The new Higgs mass is theoretically disclosed by implementing the dimensional features of relativistic spacetime into the dimensions of the dark energy force formula and an equalization to the lowest limit for acceleration in Newton force, being a transition where Newton breaks down and the dark energy force takes over. The dark energy force generates gravitational movement and thus mass. This enables to calculate a Higgs mass differently than in currently used theories.

Introduction.

In this paper a much higher Higgs mass is calculated for approximately 0.5 TeV/c^2. This value is much higher than predicted by any other physicist, or group of physicists. Even Peter Higgs (and others) did not predict such a in 1960's. This is in brewing contrast of the conclusions made on August 22 2011, at the Biennial International Symposium on Lepton-Photon Interactions at the Tata Institute of Fundamental Research in Mumbai, India, CERN, where scientists declared that over the entire range of energy the Collider had explored - from 145 to 466 GeV/c^2 - the Higgs boson is excluded as a possibility with a 95% probability. This was also stated in several other news-releases! The only range left for finding the Higgs-particle still lies in the 'Giga-range' of 114-158 GeV/c2 . Particle-scientists, however, are very pessimistic about finding it there, although no good alternative is at hand. This paper, however, changes that unpleasant expectation. The mass-value for the Higgs particle here presented is calculated with a new dark energy force formula, which is a performing new force in the hypothetical new cosmological 'model' of the Double Torus, which considers the Big Bang to be a part of it. Contraction or expansion of space in this hypothesis is a recalcalculation mechanism in the Double Torus for spacetime and quantummechanics which make use of two extra time dimensions below the Planckscale. This generates gravitational movement and thus mass. From this hypothetical new perspective a New Higgs mass is calculated. It pleads for further research in the Tetra range of the LHC energy collissions to find a 0.5 TeV/c^2 Higgs mass particle.

Reference to the calculation.

Firstly I recall the original dark energy force formula and its transformation to dimensions without the gravitational Newton constant (G) as described in vixra paper: **http://vixra.org/abs/1107.0017** ; July 10 2011; Author Dan Visser, titled: "Recalculation-mechanism of the Big Bang in a Double Torus Universe".

Then I repeat the end-formula as formula (0.1) in order to show how it can be used for calculating the Higgs mass from an other perspective than is predicted in a Big bang framework . Here it will be calculated from the perspective of the Double Torus geometry, which is a hypothesis for a new cosmological model for the universe. It is based on a dark energy torus enclosing a dark matter torus, where within a dark energy force is performing a recalculation process. The formula used for the Higgs mass value calculation is:

$$F_{de} = \frac{1}{2} c^5 O_e m^3 \left[\frac{m^3 m^2 m^3}{s^3} N^2 \right] \tag{0.1}$$

In formula (0.1) c is the lightspeed in meters per second; O_e is the squared Plancklength in squared meters; and m is a variable mass value in kilogramm.

Formula (0.1) represents the 'recalculation-mechanism for for the universe' based on the Double Torus geometry, which is also described in the afore mentioned vixra paper.

This means that relativistic spacetime and quantumgravity are subject to a recalculation-process, which is performed by formula (0.1).

The dimensions of formula (0.1) implicitly represent that the connection between two spaces m^3 through a surface m^2 is dependent on how many parameters are used for an interval of m *in meters.* If this interval is an interval in relativistic spacetime , than the existence of 10 parameters must be used to determine space, which is necessary conform the Einsteins field equations. In that case time in s^3 is determined by 1 parameter time.

The (new) calculation of the Higgs mass.

The calculation of the Higgs mass with the dark energy force formula is a new calculation based on a new perception on the universe: Double Torus geometry. It exists of substitution of numbers in formula (0.1) and equalization to the lowest limit available for the acceleraton of a Newton force (5.10^{-14} m/s). In the following sequence is explained why this is done.

$$F_{de} = \frac{1}{2} 3^5 . \left(10^8\right)^5 . (2.6).10^{-70} m^3 \left[\frac{m^3 m^2 m^3}{s^3} N^2 \right] \tag{0.2}$$

$$F_{de} = (315.9).10^{-30} m^3 \left[\frac{m^3 m^2 m^3}{s^3} N^2 \right] \tag{0.3}$$

$$F_{de} = \pm(17.774).10^{-15} m^3 [N] \left[\frac{m^3 m^2 m^3}{s^3} \right] \tag{0.4}$$

$$F_{de} = \pm(1.7774).10^{-14} m^3 [N] \left[\frac{m^3 m^2 m^3}{s^3} \right] \tag{0.5}$$

Here is the argument shows up for why the equalisation with the lowest limit of acceleration is performed: The value $(1.7774). 10^{-14}$ seems to be an acceleration just a factor 2.8 smaller

than the lowest limit for the Newton acceleration of $5.\,10^{-14}$. This implies that where the Newton force breaks down the dark energy force takes over, with the mass m to the exponent 3. Although a small difference of a factor 2.8 is the case, it enables me to calculate a mass value m to substitute in formula (0.5) as follows:

$$F_{de} = F_N \rightarrow \pm(1.7774).10^{-14} m^3 = m.\left(5.10^{-14}\right) \tag{0.6}$$

$$m = \pm 1.667[kg] \tag{0.7}$$

Substitution in formula (0.5) gives:

$$F_{de} = \pm(1.7774).10^{-14}(1.667)^3[N]\left[\frac{m^3 m^2 m^3}{s^3}\right] \tag{0.8}$$

Dimensional transformation of the force to its energy in Joule becomes as follows:

$$F_{de} = \pm(1.7774).10^{-14}(1.667)^3[Nm]\left[\frac{m^3 m^3}{s^3}\right] \tag{0.9}$$

$$F_{de} = \pm(1.7774).10^{-14}(1.667)^3[J]\left[\frac{m^3 m^3}{s^3}\right] \tag{0.10}$$

$$F_{de} = \pm(8.2).10^{-14}[J]\left[\frac{m^3 m^3}{s^3}\right] \tag{0.11}$$

If the interval m *in meters* in the dimension of formula (0.11) is an interval in relativistic spacetime , than the existence of 10 parameters must be used to determine space necessary as in Einsteins field equations is formulated. In that case time in s^3 is determined by 1 parameter time. This gives the force an energy as follows:

$$F_{de} = \pm(8.2).10^{-14}[J]\left[\frac{10^3.10^3}{1^3}\right] \tag{0.12}$$

$$F_{de} = \pm(8.2).10^{-8}[J] \tag{0.13}$$

Now we have got the energy of the dark energy force, which can be compared to the way a Higgs field in the Big Bang framework should give rise to mass for particles, while Einsteins field equations are performing continuously. However, only the "+" sign is allowed to use in this maifestation, because the Big Bang framework presently only shows an expanding spacetime. This is what the "+" sign does in the Double Torus: It expands the inner dark matter Torus, giving the impression of space expansion.

I prefer to transform this force energy into kilograms, because with 1 GeV/$c^2 = 1.783 . 10^{-27}$ kg, the Higgs particle can be expressed in electronVolts.

Furthermore I already implemented Einstein's dimensional features in the afore mentioned energy in formula (0.13), thus dividing through c^2 will give an expression in kilogramms:

$$F_{de} = \frac{(8.2).10^{-8}}{9.10^{16}} = (0.9).10^{-24}[kg] \tag{0.14}$$

From this follows:

$$F_{de} = \frac{(0.9).10^{-24}}{1.783.10^{-27}} = (0.5).10^3[GeV/c^2] \tag{0.15}$$

Thus:

$$Higgsmass = 0.5[TeV/c^2] \tag{0.16}$$

Conclusion.

The Higgs mass is approximately 0.5 TeV/c^2 . This is a new predicted value. This mass value for Higgs is calculated with a new dark energy force formula, which is performing in the hypothesis of the Double Torus, a new cosmological 'model' for the universe. This 'model' embeds the Big Bang framework. The new Higgs mass is a theoretically disclosed by implementing the dimensional features of relativistic spacetime into the dimensions of the dark energy force formula and an equalization to the lowest limit for acceleration in Newton force, being a transition where Newton breaks down and the dark energy force takes over. The dark energy force generates gravitational movement and thus mass. This enables to calculate a Higgs mass differently than in currently used theories.

This mass value for a Higgs particle is much higher than predicted by any othe physicist. It stand in brewing contrast with the conlusions made on August 22 2011, at the Biennial International Symposium on Lepton-Photon Interactions at the Tata Institute of Fundamental Research in Mumbai, India, CERN scientists declared that over the entire range of energy the Collider had explored - from 145 to 466 GeV/c^2 - the Higgs boson is excluded as a possibility with a 95% probability. This was also stated in several other news-releases! The only range left for finding the Higgs-particle is in the 'Giga-range' of 114-158 GeV/c^2 . Particle-scientists, however, are very pessimistic about finding it there.

Note: In this paper the Higgs particle is predicted being found in the Tetra range of LHC CERN collisions. In this respect my conclusion is a 0.5 TeV/c^2 , however, Christopher Forbes - one of the other authors mentioned in the papers of the vixra and also involved in the Double Torus hypothesis - predicts the Higgs mass in the range of aproximately 12 to 14 TeV/c^2 (to be more precise: 12.097 - 13.8674 TeV/c^2), which is based on his personal notes of which I have had never access to. He emailed me that range. Just for the record.