

# Higgs-Limited Boson Surface (Higgs-LBS) is a Mass-Surface – thus not a singular Higgs-boson - and is related to Faster-Than-Light-Neutrinos.

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## Abstract.

In this paper I give a formulation for why a new Higgs-mass is considered otherwise than is usually done. This leads to an additional explanation of my earlier posted papers about neutrinos-faster-than-light-in-vacuum; I also refer to my earlier calculated new Higgs-mass. The addition is a deeper analysis, which does not change the result in the former paper. It is extending the Higgs-energy. The first prediction is the Higgs-particle is a Limited Boson-Surface, or Higgs-LBS. This means: It is not a singular Higgs-mass boson. The second prediction is: The occurrence of an Higgs-LBS may be about 60 nanoseconds before a proton-proton collision in an accelerator, such as the LHC in CERN. This is possible because the Higgs-energy is related to a new dark energy force squared. These predictions are supposed to fit in a new cosmological hypothesis, called the Double Torus of dark energy and dark matter, wherein a new dark energy force is defined as a force smaller than the smallest gravity, which could act beyond General Relativity.

## Introduction.

I challenge the predictions of the conventional Higgs-mass in the Standard Model. Firstly because CERN discovered faster-than-light-neutrinos, whereby neutrinos should be effected by the Higgs field too, because neutrinos have mass. And secondly, because propaganda has been sent into the news media for being closely at the experimental determination of a singular Higgs-mass. The Higgs-particle hunters observed events at  $119 \text{ GeV}/c^2$  (CMS),  $126 \text{ GeV}/c^2$  (ATLAS) and  $124 \text{ GeV}/c^2$ . But the LEP-results in 2000 showed the Higgs-significance was better than now in CERN December 2011, but far from accurate enough to claim having found the Higgs-mass. Remarkably both institutes stood before their moment to shut down their accelerator for a certain period. CERN plans to continue with collisions in the second half of 2012. So, I think the news-media have been manipulated in some way, in order to put save new budgets for further development, provided from EU-countries in crises. Thus related to a reliable Higgs-boson-value and a political trick for getting enough money, CERN-investigators are possibly too enthusiastic. This gives me the opportunity to highlight again my vision on finding the right Higgs-energy in a higher energy-range and why.

The right Higgs-mass is a new Higgs-mass related to a new cosmological hypothesis, called the Double Torus of dark energy and dark matter<sup>[1,2,3]</sup>, wherein a new dark energy is defined by time-extension from below the Planck scale. But because a Planck-hole evaporates in a flash extra time is part of our real world. This implies a refinement of quantum mechanics. However, this is against the fundamental rules of the Standard Model. But the evidence I have calculated theoretically, which is based on the faster-than-light-neutrinos, clearly points out in that way. Even astronomical indications, that triggered the discussion about whether the Big Bang is the right imagination for the universe, may show the first indications for a Double Torus universe: Think about the dark flow of

galaxies disappearing in a specific direction of space time, which gave the idea of a curved space time towards the beginning of the Big Bang. That is the first openly spoken hint that the curvature is a part of the Double Torus Universe; and think about the conformal cyclic cosmological hypothesis with its subjective interpretations of concentric circles in the CMB as being the cause of massive black hole collisions in former time-cycle of a Big Bang without inflation. Such examples of evidence scream for not only a new geometry for the universe, but also for a new dynamic. Now the discovery of neutrinos-faster-than-light have become additional. All these indications fit in the formulations of the Double Torus hypothesis. Thereby the philosophy is: Extending deeper down the Planck scale with two time dimensions demands a wider universe than the Big Bang, without the necessity of a multiverse. Several of my viXra-papers theoretically indicate, mathematically formulate and calculate, towards this concrete evidence. Consequently this means the Higgs-energy must be found in a different place of the energy-spectrum, wherein it will be no singular particle, but a limited boson-surface (Higgs-LBS). A Higgs-LBS might even occur before the creation of the decay mass-particles in proton-proton collisions of the LHC in CERN. This is directly related to the evidence of experimental detected earlier-than-light-neutrinos. This Higgs-analysis is written down in this paper. So, I am convinced already new physics is dawning at the horizon.

**Deeper analysis towards a new Higgs-energy.**

In figure 1 two neutrinos are shown . In my former paper <sup>[2]</sup> a figure related to this fig. 1 is also shown. In Fig. 1a the left-handed neutrino is having momentum p. The right-handed neutrino supposed to be non-existent; it is supposed to be its own anti-particle (Majorana).

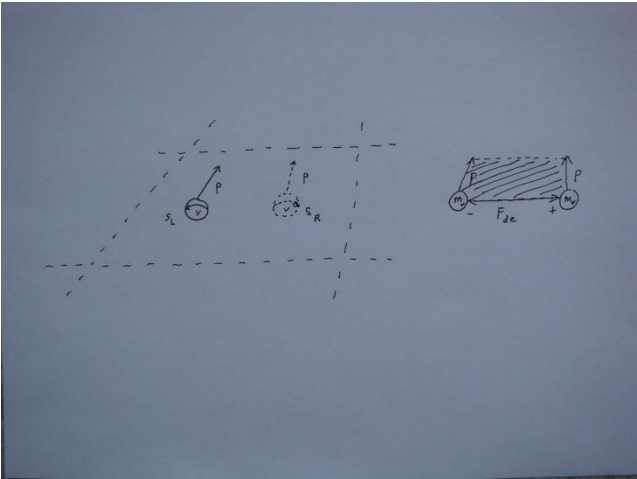


Fig. 1a

Fig. 1b

Fig. 1a : Only left-handed neutrinos are detected in physics-experiments (v =neutrino, p=momentum (mv), s<sub>L</sub>=Left-handed spin, s<sub>R</sub>=Right-handed spin). Etorre Majorana suggested the left-handed neutrino is its own anti-particle. Fig. 1b: The (new) dark energy force entangles the Left-handed and Right-handed neutrinos in exchange for their spins in the new cosmological hypothesis of a Double Torus Universe.

In fig. 1a the new dark energy force is drawn, being a force smaller than the smallest gravity. This new force creates a duo-state of neutrino-energy through repairing the symmetry of left-handed and right-handed neutrinos. This enables neutrinos to get a speed faster than light by the formation of a mass-surface. So, neutrinos obtain a superconductive surfing-behavior for leaving Relativity (faster than light speed and anti-gravitational).

The dark energy force is theoretically described in a rather small mathematical equation <sup>[2]</sup>. I also showed the new force is smaller than the smallest gravity. However, the imagination of the function of the new dark energy force, as shown in fig. 1b, is new. This enables me to write my idea in a ratio-formula, which offers a new perception for how a new Higgs mass would look like in the Double Torus hypothesis. As is shown in fig. 1b a (new) dark energy force, will speed-up after transformation of the spin-energy from the left- and right-handed neutrinos in favor of the dark energy force. This creates a momentum of a duo-state entangled-neutrino-pair, that moves faster than light in vacuum:

$$\frac{p^2}{s_L + s_R = 0} = \frac{(mv)^2}{F_{de} \leftarrow (s_L + s_R)} = \frac{(m_v)^2 (c + \Delta v)}{F_{de} \leftarrow (s_L + s_R)} \quad (1)$$

This triggers the idea the Higgs-mass represents a mass-surface, instead of what the Higgs-particle normally would supposed to be in Standard Physics, namely a boson-particle. So, the Higgs-mass will be not a singular particle, but a surface-particle moving faster than light-in-vacuum, which must act in the wider universe as (Higgs<sub>DT</sub> LBS), called the Double Torus hypothesis. This leads to the following formulation:

$$Higgs_{DT} LBS = \{m_v \cdot (-F_{de})\} \cdot \{m_v \cdot (+F_{de})\} = (m_v)^2 \cdot (F_{de})^2 \approx (F_{de})^2 \quad (2)$$

According to experiments generally the neutrino-rest mass is small compared to the energy of a faster than light going  $F_{de}$  force. Thus  $(m_v)$  can be neglected. This implies that the  $F_{de}$  force represents the Higgs-boson within and beyond Relativity, which is part of the Double Torus Hypothesis. The neutrino-mass transforms into dark matter mass for Relativity-viewers, after having got more speed than the light speed. This is already described in my former paper<sup>[2]</sup> by my formula that shows the dark energy force is a product of the smallest Newton force and dark matter squared ( $m_{dm}$ ), as follows:

$$F_{de} = F(\downarrow \lim)_N [N] \cdot \left\{ \pm (m_{dm})^2 \right\} \left[ \frac{m^3 m^3}{s^3} \right] \quad (3)$$

Wherein

$$F(\downarrow \lim)_N = m_{vm} g' \quad (4)$$

With  $(m_{vm})$  is visible mass and  $g'$  is the acceleration produced by the  $F_{de}$  force:

$$g' = (k_{de})^{\frac{1}{2}} = \left( \frac{c^5 O_e}{2} \right)^{\frac{1}{2}} \left[ \frac{m}{s^2} \right] \quad (5)$$

This gives:

$$F_{de} = F(\downarrow \lim)_N [N] \left\{ \pm (m_{dm})^2 \right\} \left[ \frac{m^3 m^3}{s^3} \right] \text{ with } k = g' \text{ and } F \downarrow (\lim)_N = m_{vm} k \quad (6)$$

Equation (6) is the base for the calculation of a new value for the Higgs-mass in my former paper<sup>[1]</sup>. Therein I used a starting point-equation, wherein the new dark energy force is equal to the smallest newton force! Thus not moving faster than light. So have the conventional notation for acceleration  $a$ , wherein  $a = k$ , as follows:

$$F_{de} = F(\downarrow \lim)_N [N] \left[ \frac{m^3 m^3}{s^3} \right] \text{ with } k = g' \text{ and } F \downarrow (\lim)_N = m_{vm} a \quad (7)$$

This was the base of my formula to calculate the Higgs-mass in my former paper<sup>[1]</sup>. Whereby  $m = m_{vm} = m_{dm}$ , from which follows:

$$k.m^3 = m.a \left[ \frac{m^3.m^3}{s^3} \right] \quad (8)$$

I do not repeat further derivations and calculation here. Therefore I refer to my former paper<sup>[1]</sup>. The neutrino-mass ( $m_v$ ) is visible mass  $m_{vm}$  before symmetry-repair. After symmetry-repair by the dark energy force (faster-than-light), it becomes dark matter-mass ( $m_{dm}$ )<sup>2</sup>. So by dividing out ( $m = m_{vm}$ ), formula (8) will be as follows:

$$m^2 = (m_v)^2 = (m_{dm})^2 = \frac{a}{k} \quad (9)$$

Then I substituted  $m^2 = a/k$  in the dark energy force (equation 6), which enabled me to calculate the new Higgs-mass as in paper<sup>[1]</sup>. Hereby I notify, that the dimensions of equation (6) and (8) are tuned to the 10 components of the metric of a point of space time as is fundamentally described in General Relativity, wherein the smallest gravity is just the lowest limit to be accepted for space time curvature. For further details see my paper in reference [1]. The first result was a new Higgs-mass of  $0.5 \text{ TeV}/c^2$ . This is about 4.2 times larger than the experimental predicted CERN-value gathered by exclusion of energy-ranges until  $125 \text{ GeV}/c^2$  was left. This is about 4.2 times larger. However the important part is yet coming! According to equation (2) the Higgs-mass is a limited surface, an Higgs-LBS, which means it is the squared value of the dark energy force! So, the new Higgs-LBS will be  $(0.5)^2 = 0.25 \text{ (TeV}/c^2)^2$ . This would be  $(4.2)^2 = 17$  times larger than an experimental predicted CERN-value according to the exclusion-process. But as said before, I also used the dark energy force in a mode not faster than the light speed, so the value may easily be 10 times larger, for example about  $2.5 \text{ (TeV}/c^2)^2$ . Last but not least, the faster than light neutrinos – as base for the Higgs-LBS - may suggest the Higgs-LBS may occurs even about 60 nanoseconds before a proton-proton collision !! Therefore I argue to investigate the energy-range above  $600 \text{ GeV}/c^2$  in experiments up to  $3000 \text{ GeV}/c^2$  according to my papers<sup>[1,2,3]</sup> and this paper.

## References.

[1] <http://vixra.org/abs/1108.0048> ; August 29 2011; Author Dan Visser, titled: "New value for the Higgs Mass".

[2] <http://vixra.org/abs/1110.0030> ; October 29 2011; Author Dan Visser, titled: "A New Dark Energy Force Theoretically Calculates Neutrino's-Faster-Than-Light".

[3] <http://vixra.org/abs/1111.0106> ; November 27 2011; Author Dan Visser, titled: "A New Force Smaller Than the Smallest Gravity".