

New cosmological hypothesis match observations by new dark energy-time applied to dark matter for the existence of a Double Torus Universe.

Author: DAN Visser, Almere, the Netherlands

Date: March 25 2013

Abstract.

The Double Torus hypothesis stands for a new architecture for the Universe, which means another dark energy as dynamics and no Big Bang. New dark energy-time is applied to dark matter. It is 'extra time' originated from a time-scale smaller than the Planck-time. The implication is a Double Torus of the dark energy-time enclosing and intertwining an inner dark matter torus. It might sound controversial, but a new 'dark energy-force formula' in the hypothesis enables to make calculations, which match the observed dark matter-accelerations in galaxies and the Pioneer satellites 1 and 2. This new formula relates to Newton quantum-gravity force and dark matter-force both implemented in one product. The dark matter force could be gravitational (+) and anti-gravitational (-). The formula also sets the laboratory acceleration-limit for Newton-gravity, $5 \times 10^{-14} \text{ m/s}^2$, to a theoretically lower value of $2.8659 \times 10^{-14} \text{ m/s}^2$. There is no other formula, or theory, to do that. The hypothesis-dynamic is developed by DAN Visser, Almere, the Netherlands, an independent cosmologist. Additional evidence comes from astronomical observations: Such as the asymmetry in the Cosmic Microwave Background (CMB) and a 'Dark Flow', which pleads for a cyclic-curved torus-shape of the universe. This also could explain the observed 'cold spot' in the CMB by to imagine dark matter is disappearing in the far end of the curved torus-shape. Hence, also a 'hot spot' in the CMB should exist. This should correspond to the approaching dark flow coming from the other curved torus far-end.

Preface.

The original formula for a (new) dark energy force was a result derived from a 'thought-experiment'^[1]. This comprehends 'the scaling away of two different black holes faster than light'. The result of the formula bears "-" sign and is published on my website on April 4 2004. In the summer of 2009, PhD Christopher Forbes (UK), also Fellow-member of the Astronomical Society, noticed the formula and contacted me by email. In a follow-up I send him an additional idea of a 'time-torus'. These ingredients made it possible for Forbes to propose a mathematical expression^[2], wherein my formula was a solution of the math expression, but with a "+" and "-" sign. Even a solution of a related dark energy became a result. Unfortunately in 2011 the contact between us got lost for unknown reasons. I decided to work out several papers my own, which nowadays seems to give rise sufficiently to an alternative for Big Bang cosmology. After solitaire development this became my Double Torus framework.

Introduction.

In this paper I put the Double Torus hypothesis in perspective with gravity, dark matter and the Higgs-theory. I express, that (new) dark energy-time is formed by a product of quantum-gravity force and dark matter force. This also relates to how elementary particles gets mass., while the Standard Model of particles and forces theoretically assumes the Higgs-field to be fundamental for elementary particles getting mass (there should be five different Higgs masses). Recently a Higgs-like particle might be discovered with about 126 times the mass of a proton. Still it is not proven the spin is "0" and the parity is "+". So, the question is rising: Is the 'wobble' in the Higgs-field really representing a signal belonging to an energy-field that emerged from the energy of the Big Bang? Is it really the field that

behaves like a 'syrup-like field' to enable particles to gather mass? Could this field also be the same field as the inflation-field, the field to be assumed to power the cosmic inflation directly after the Big Bang? So, my general question is: Is it likely that two different fields should have been created after the Big Bang for giving the world mass and gravity?

Is the Higgs-like-particle really what it supposed to be? Nobody knows what its relation could be with dark matter? Sideways and contrarily the M-string-theories do have a place for gravity and dark matter by super-symmetry and implies low mass Higgs-like particles to make-up super-partners next to the existence of elementary particles, such as dark matter particles. However, super-symmetry fails the tests^[3]. Moreover, both theories still have no good answer on what dark energy in Big Bang cosmology really is. Neither do they have an answer for dark matter. Intentional the Standard Model and the M-string-theories exclude time smaller than the Planck-time. In the Standard Model time larger than the Planck-time is a 'holy' principle.

In the Double Torus hypothesis this is different. In the double Torus hypothesis quantum-gravity, dark matter and the Higgs-field are placed in a new perspective of cosmology, wherein dark energy is contributes by additional time smaller than the Planck-time to recalculate quantum-gravity, hence reality. This makes it a 'new dark energy'. Even dark matter gets a 'face'. Dark matter in the Double Torus is a 'spinning torus-particle' in vacuum, which accelerates with small values, and generates a dark flow. These aspects are shown in this article mathematically and referenced to the observations.

The formulas I used within the Double Torus framework show quantum-gravity and dark matter being affected by time smaller than the Planck-time and are introduced successfully to calculate accelerations for dark matter in galaxies and the Pioneer satellites 1 and 2. The match is remarkable, but most remarkable is the setting of a slightly lower breakdown-limit for the smallest acceleration of the Newton-gravity to $2.8659 \times 10^{-14} \text{ m/s}^2$. This is verifiable with experiments that measured an acceleration of $5 \times 10^{-14} \text{ m/s}^2$.

The Double Torus framework formulas comprehend papers hosted in the Vixra-archive (category mathematical physics). In some papers I contribute additional evidence in showing the Double Torus hypothesis also solves the discrepancy of vacuum energy-density. One calculated from General Relativity, and one calculated from the quantum-gravity. I also showed in one of the papers an α -dipole (the fine-structure-constant with different values in opposite direction of the hemisphere) could be calculated by the (new) dark energy force formula. This points it in relation to a possible curvature of flat Big Bang cosmology, which is a shocking indication for conventional thinkers. Such an almost unacceptable phenomenon is highlighted by the established dimensions of the dark flow' from my (new) dark energy force formula. Meanwhile the Planck-satellite-data^[4] (and earlier the WMAP) have revealed two different areas of quantum-fluctuations in the Cosmic Microwave Background (CMB). Even a 'cold spot' is observed in the CMB. These reality-checks support the afore mentioned evidence, especially the latest astronomical investigations, which give rise to the possible existence of a cyclic curved torus having flowing dark matter: *The Double Torus Universe*.



Fig.1: Dan Visser (*1947), photograph 2008.



Fig.2: Double Torus Universe (illustration), a dark energy-time torus is enclosing and intertwining an inner ‘flowing’ dark matter torus.

The formulas.

In the following chapters the result of my derivations are given, as published in the Vixra-archive. Also some calculations are performed.

The dark energy force formula in the original setting of April 4 2004:

$$F_{de} = -km^3 = -\left(\frac{c^5 O_e}{2G}\right) m^3 \left[(kgm)^3 \frac{N}{s} \right]$$

$$k = k_{de} \frac{1}{G} \tag{1}$$

$$k_{de} = \frac{c^5 O_e}{2}$$

Since the first paper was published in 2009 the “+” sign also became part of the formula (1).

$$F_{de} = \pm km^3 = \pm \left(\frac{c^5 O_e}{2G}\right) m^3 \left[(kgm)^3 \frac{N}{s} \right]$$

$$k = k_{de} \frac{1}{G} \tag{2}$$

$$k_{de} = \frac{c^5 O_e}{2}$$

The original setting was supported by the general mathematical expression of Christopher Forbes, which showed the additional “+” sign. For causing no confusion with my “k” I use k_{chris} in his equation:

$$\int (\alpha x^2 + \beta x + \gamma) dx = k_{chris}, k_{chris} \in \mathbb{R}$$

$$\text{for } \int (0) dx = k_{chris} \text{ follows } \int (\alpha x^2 + \beta x + \gamma) dx = \int (0) dx$$

$$\text{from } \int (\alpha x^2 + \beta x + \gamma) dx = \int (0) dx \text{ follows } (\alpha x^2 + \beta x + \gamma) = 0 \tag{3}$$

$$\text{for } \alpha = G, \beta = 0, \gamma = -\frac{1}{4} c^4 \hbar^2 M^6 G \text{ follows } x = \pm \frac{1}{2} c^5 m^3 G^{-1} (L_{Planck})^2$$

The “x” is identical to my (new) dark energy force formula in equation (2), wherein $O_e = (L_{\text{Planck}})^2$, as follows:

$$F_{de} = \pm km^3 = \pm \left(\frac{c^5 O_e}{2G} \right) m^3 \left[(kgm)^3 \frac{N}{s} \right] \quad (4)=(2)$$

However, the dark energy from equation (3) is new:

$$\gamma = -\frac{1}{4} c^4 \hbar^2 M^6 G \quad (5)$$

Further analysis during my solitaire research, after the contact with Forbes got lost, show the dimensions.

The parameters of the dark energy (γ) are:

$$\left[\left(\frac{m}{s} \right)^4 (Js)^2 kg^6 \frac{m^3}{kgs^2} \right] = \left[\frac{m^4}{s^4} J^2 s^2 kg^6 \frac{m^3}{kgs^2} \right] = \left[\frac{m^4}{s^4} J^2 kg^5 m^3 \right] = A$$

$$A = \left[kg^2 \frac{m^4}{s^4} J^2 kg^3 m^3 \right] = \left[\left(kg \frac{m^2}{s^2} \right)^2 J^2 (kgm)^3 \right] = \left[J^2 J^2 (kgm)^3 \right] \quad (6)$$

$$\text{from this follows } -\gamma \left[\frac{1}{4} J^2 J^2 (kgm)^3 \right]$$

These are two energy-spaces in $[J^2]$ and $[1/4 J^2]$, one energy-space is four times smaller, and square () to the other. This implies the circular description of an energy-torus within an a four times larger energy torus. Simultaneously it co-describes the 3D mass-surface in $[(kgm)^3]$, along with the size of the smaller energy-torus embedded in the larger one. This means the larger energy torus intertwines the smaller one. Overall it fully describes the Double Torus topology as a (new) dark energy torus enclosing and intertwining an inner dark matter torus.

After having published several papers in the Vixra, I published my dark energy force formula in another setting.

The dark energy force formula in the setting of January 2013.

I started with equation (4) = (2):

$$F_{de} = \pm m^3 k_{de} \left[(kgm)^3 \frac{N}{s} \right] \quad (7)$$

$$\text{Wherein } k_{de} = \frac{c^5 O_e}{2\kappa}, \text{ with } \kappa = G, \text{ or } \kappa = 1$$

I transformed it into a product of visible mass and dark matter mass, which both accelerate. This split-up in visibility and darkness is justified, because another of my papers already derived a split-up due to a match with observations for gravity-conditions in galaxies. For $1/4$ of the dark matter-density the gravity-conditions for dark matter are the same as for gravity based on visible matter^[5].

The split-up is as follows:

$$F_{de} = m_{vm} k'_{de} \otimes \pm m_{dm}^2 k'_{de} \left[(kgm)^3 \frac{N}{s} \right] \quad (8)$$

$$k'_{de} = (k_{de})^{\frac{1}{2}} = \left(\frac{c^5 O_e}{2\mathcal{K}} \right)^{\frac{1}{2}} \left[\frac{m}{s^2} \right] \quad (9)$$

Wherein, \mathcal{K} defines the conditions larger than, at the edge, and within the *Planck-surface*.

This would lead to lowest acceleration-limits ($\downarrow \lim$) as follows:

$$F_{de} = \downarrow \lim (F_N^G) \otimes \downarrow \lim (\pm F_{dm}) \left[(kgm)^3 \frac{N}{s} \right] \quad (10)$$

Now the conditions for \mathcal{K} can be described:

1. For an area larger than the Planck-surface (nO_e) with $n = 1, 2, 3, \dots, N$, follows for :

$$(k_{de})^{\frac{1}{2}} > \downarrow \lim (g) \xrightarrow{1} (\mathcal{K} = G) \xrightarrow{2} (k_{de})^{\frac{1}{2}} = \left(\frac{c^5 O_e}{2G} \right)^{\frac{1}{2}} > \downarrow \lim (g) \left[\frac{m}{s^2} \right] = (A)$$

$$(A) \Rightarrow F_N^G = mg [N] = G \frac{Mm}{r^2} [N] \quad (11)$$

2. For an area at the edge, or within, the Planck-surface $\left(\frac{1}{n} O_e \right)$, with $n = 1, 2, 3, \dots, N$, follows for :

$$(k_{de})^{\frac{1}{2}} < \downarrow \lim (g) \xrightarrow{1} (\mathcal{K} = 1) \xrightarrow{2} (k_{de})^{\frac{1}{2}} = \left(\frac{c^5 O_e}{2} \right)^{\frac{1}{2}} \left[\frac{m}{s^2} \right] = (B)$$

$$(B) \Rightarrow \xrightarrow{1} F_N^{G=1} [m^2] \xrightarrow{2} F_{dm} = \pm m_{dm}^2 \left(\frac{c^5 O_e}{2} \right)^{\frac{1}{2}} \quad (12)$$

The dimension F_{dm} in equation (12) is as follows:

$$\left[(kgm)^3 \frac{N}{s} \right] = \left[kg^3 m^3 \frac{N}{s} \right] = \left[\left(G \frac{m^3}{s^2} \right)^3 m^3 \frac{N}{s} \right] = \left[G^3 \frac{m^9}{s^6} m^3 \frac{N}{s} \right] = \left[G^2 \left(G \frac{m^4}{s^4} \right) \frac{m^8}{s^3} N \right] = (C)$$

$$(C) = \left[G^2 \frac{m^8}{s^3} N^2 \right] \quad (13)$$

Newton-gravity-force at the edge and within the Planck-surface has $G=1$ and the Newton-gravity-force is maximum, $[N^2]=1$.

So the dimension of (C) will be:

$$(C) = \left[G^2 \frac{m^8}{s^3} N^2 \right] = \left[\frac{m^2 m^6}{s^3} \right] \quad (14)$$

This is representative for the January 2013-setting of the dark energy force formula, as follows:

$$F_{de} = \left\{ (F^G_N) [m^2] \right\} \otimes \left\{ (\pm F_{dm}) \right\} \left[\frac{m^6}{s^3} \right] \quad (15)$$

It is identical to:

$$F_{de} = \left\{ (F^G_N) [m^2] \right\} \otimes \left\{ (\pm F_{dm}) \right\} \left[\left(\frac{m^2}{s} \right)^3 \right] \quad (16)$$

It gives a dimensional solution for dark matter and dark matter force:

$$F_{dm} = \pm m^2_{dm} \left[m^2 m^2 \frac{m}{s} \right] (k_{de})^{\frac{1}{2}} \left[\frac{m}{s^2} \right] = \pm m^2_{dm} (k_{de})^{\frac{1}{2}} \left[\left(\frac{m^2}{s} \right)^3 \right] \quad (17)$$

Which is identical to:

$$F_{dm} = \pm m^2_{dm} \left[m^2 m^2 \frac{m}{s} \right] \cdot \left(\frac{c^5 O_e}{2} \right)^{\frac{1}{2}} \left[\frac{m}{s^2} \right] \quad (18)$$

Which is identical to:

$$F_{dm} = \pm m^2_{dm} \left(\frac{c^5 O_e}{2} \right)^{\frac{1}{2}} \left[\left(\frac{m^2}{s} \right)^3 \right] \quad (19)$$

This equation (18) and (19) represent 'dark matter mass' with a dimension of a '*spinning torus*' (see also fig. 3). This '*spinning torus*' also accelerates in two opposite directions, which makes it either to expand or contract. That is expressed in equation 19, showing the dark matter force has the dimension of a '*dark flow*' (a surface-flow in three dimensions).

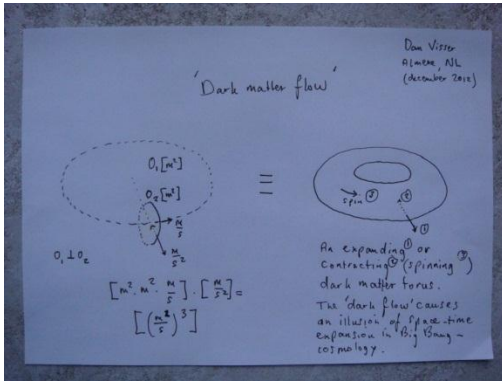


Fig. 3: Dark matter flow in the Double Torus hypothesis.

Additionally I created (for the first time) a Feynman-like-diagram for the ‘dark matter-force’ (fig 4).

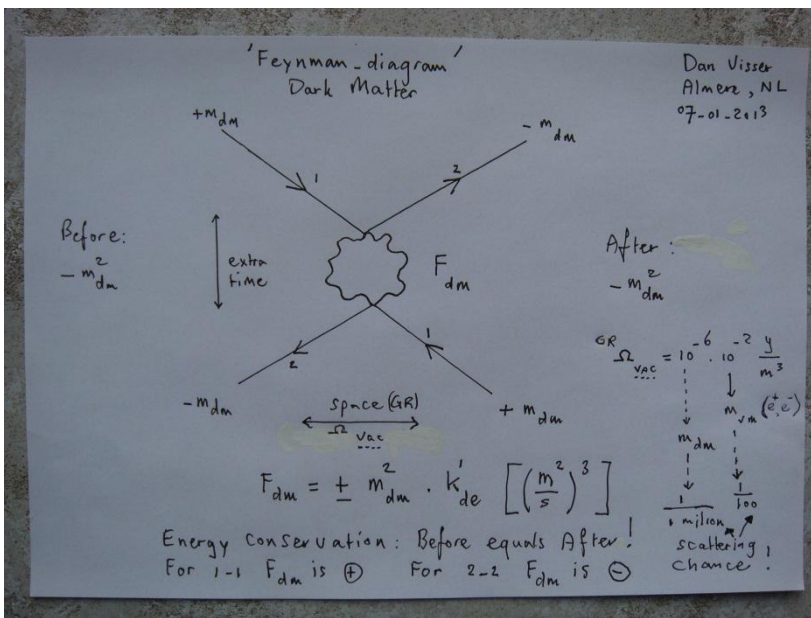


Fig. 4: Feynman-diagram for ‘dark matter’, which relates to gravity, or anti-gravity by negative dark matter-mass.

Then the setting of January-2013 slightly extended afterwards.

The transition of the gravity-constant G [$N \cdot (m^2 / kg^2)$] into 1 [m^2] gave a better insight in the Newton force as quantum-gravity force (quF_N^G) and the dark matter force. The insight is found by an analysis of the Christopher Forbes-math-expression, as follows:

$\beta = 0$ demands the function $ax^2 + bx + c = 0$ to have two roots. These roots are:

$$x_{1,2} = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a} = \frac{-\beta \pm \sqrt{\beta^2 - 4\alpha\gamma}}{2\alpha} \tag{20}$$

$$x_{1,2} = \frac{0 \pm \sqrt{0 - 4G\gamma}}{2G} = \pm \sqrt{\frac{-\gamma}{G}} = \pm \sqrt{\frac{-(-\frac{1}{4} c^4 \hbar^2 M^6 G)}{G}} = \pm \sqrt{\frac{1}{4} c^4 \hbar^2 M^6} = \pm \frac{1}{2} (\hbar M^3) c^2 \tag{21}$$

The roots have a sort of similarity with $\frac{1}{2}mv^2$, which is the average energy of visible moving Newtonian mass. However, now I found an average energy to be gravitational (+) and anti-gravitational (-). Moreover, that energy is operating as an M^3 -massglobe (in 3D) within the energy-time Planck-surface, expressed with dimensions [Js]. This means activity of dark energy and dark matter is a full dynamical case within the Planck-surface.

According to the afore mentioned discriminant $D = b^2 - 4ac = 0 - 4G\gamma = -4G\gamma$, (22)

and for dark energy is negative, which means $(\gamma < 0) \Rightarrow D = 4G\gamma > 0$ there are two roots. These roots are not dependent on G, but only proportional to $(\hbar M^3)c^2$. (23)

So the α in equation (3) is allowed to change the gravity-constant G [N.(m²/kg²)] into 1 [m²], This can be described as follows:

$D = 4\alpha\gamma$, with $G \leq \alpha \leq 1$. From this follows:

For $(\alpha = G) \rightarrow D = 4G\gamma$ (24)

For $(\alpha = 1) \rightarrow D = 4\gamma$ (25)

This leads to the setting of March 2013

The setting of the March 2013 dark energy force formula.

When a gravitational field is described by a gravitational constant G than reality is observable. Then cosmology is related to a dark matter force with dimensions in [(kgm)³/s], which means a static moment of mass-3D surface per second (without dynamics), we are only aware of time larger than the Planck-time. The formula for dark energy force then becomes as follows:

$$F_{de}^{t \geq t_{planck}} = quF_N^G \left[kg \frac{m}{s^2} \right] \otimes \pm F_{dm}^{invac} \left[\frac{(kgm)^3}{s} \right] \tag{26}$$

$$\pm F_{de}^{t \geq t_{planck}} \left[(kgm)^3 \frac{N}{s} \right]$$

A significant detail is, dark energy produces 4 times ‘G’!! (look at the discriminant, equation 24). This correlates to the ‘Einstein-cross’, which represents observations of four images of an object that lies behind a strong gravitational field caused by stars, galaxies or clusters of galaxies.

But if $\alpha = G = 1$ still the dark energy remains to have a 4 times larger (new) dark energy. Then it is related to (new) energy per 1 [m²] while it is operating hidden deeply in vacuum and based on time smaller than the Planck-time. Then the formula for dark energy force becomes:

$$F_{de}^{t \leq t_{planck}} = quF_N^G [m^2] \otimes \pm F_{dm}^{invac} \left[\left(\frac{m^2}{s} \right)^3 \right] \quad (27)$$

$$\pm F_{de}^{t \leq t_{planck}} \left[\frac{m^8}{s^3} \right]$$

Now a significant detail is: We observe dark matter as a 3D-dark matter flow, because the dimension have become $[(m^2/s)^3]$. So, here we are: A 'dark flow' is observed by astronomers in reality^[6]. This means concrete proof for the existence of a Double Torus universe is at hand, because it follows my formulas in the Double Torus hypothesis.

I think Gravity F_N^α , for $G < (\alpha) \leq 1$, means:

$$quF_N^G [N] \leq F_N^{G < \alpha \leq 1} \leq quF_N^1 [m^2] \otimes \pm F_{dm} \left[\left(\frac{m^2}{s} \right)^3 \right] \quad (28)$$

Equation 26, 27 and 28 are therefore new and hint to a new cosmology, the Double Torus hypothesis.

A further verification of my statements is done by two calculations with the acceleration as described in equation (9).

Verification of the dark energy force accelerations.

For $(\alpha = \kappa = G)$ follows:

$$\left\langle \left(k_{de} \right)^{\frac{1}{2}} = \left(\frac{c^5 O_e}{2\kappa} \right)^{\frac{1}{2}} \left[\frac{m}{s^2} \right] \right\rangle \Rightarrow \left(k_{de} \right)^{\frac{1}{2}} = \left(\frac{c^5 O_e}{2G} \right)^{\frac{1}{2}} \left[\frac{m}{s^2} \right] = 0.3527 \times 10^{-10} [m/s^2]. \quad (29)$$

This is the theoretical value for the observed dark matter-acceleration in galaxies. This acceleration is astronomical determined^[7,8] at $1 \times 10^{-10} [m/s^2]$.

The observed value is 1/3 smaller than the theoretical calculated value. This is due to the lack of sufficient sensitive instruments for measuring dark matter in galaxies.

The same is at hand for the calculation of the acceleration of the Pioneer-satellites 1 and 2, which are also assumed to decelerate by dark matter. The experimental value is determined at $9 \times 10^{-10} [m/s^2]$ (see also reference 7 and 8). This determined value is about 20 times smaller than the theoretical value. This is due to the much more smaller scale of dark matter influence within the planetary-system; for galaxies there is much more dark matter present seen from a larger distance. This leads to a more accurate acceleration-value of dark matter in galaxies.

In the other case, where $(\alpha = \kappa = 1)$, follows:

$$\text{For } \left\langle (k_{de})^{\frac{1}{2}} = \left(\frac{c^5 O_e}{2\kappa} \right)^{\frac{1}{2}} \left[\frac{m}{s^2} \right] \right\rangle \Rightarrow (k_{de})^{\frac{1}{2}} = \left(\frac{c^5 O_e}{2} \right)^{\frac{1}{2}} \left[\frac{m}{s^2} \right] = 2.8659 \times 10^{-14} \text{ [m/s}^2\text{]}. \quad (28)$$

In both calculations $c = 3 \times 10^{-8} \text{ [m/s}^2\text{]}$, $O_e = (2.6 \times 10^{-35})^2 \text{ [m}^2\text{]}$, $G = 6.6 \times 10^{-11} \text{ [N} \cdot (\text{m}^2/\text{kg}^2)\text{]}$

The result of equation (28) is the smallest acceleration-limit produced by dark matter. It is roughly 2 times smaller than the experimental laboratory-results of $5 \times 10^{-14} \text{ [m/s}^2\text{]}$ (see also reference 7 and 8). The theoretically calculated value is the real breakdown of Newton-gravity, where dark matter takes over.

Conclusions.

A (new) dark energy force formula performs calculations that match astronomical observations and experiments in earthy-laboratories. This might imply that leaving Big Bang cosmology is closer than many conventional cosmologists wish. For me it is clear we live a Double Torus Universe, wherein dark energy is based on time smaller than the Planck-time and is applied on dark matter. I describe the dimensions of dark matter. The formulas show a dark flow is predicted theoretically in the Double Torus hypothesis. In reality a dark flow is indeed observed. This paper opens-up a new perspective on cosmology.

References in this paper.

- [1] <http://vixra.org/abs/1010.0013> ; July 2010; Author Dan Visser: Describing the original "Dark Energy Force Formula" in retrospective.
- [2] <http://www.vixra.org/abs/0909.0005>; September 1 2009, Authors: Dan Visser, Christopher Forbes, Keith Lees, titled "A Short Article On A Newly Proposed Model Of Cosmology".
- [3] arXiv:1211.0004v1 [physics.pop-ph] 31 Oct 2012. Reflections and Impressionistic Portrait at the Conference Frontiers Beyond the Standard Model, FTPI, Oct. 2012
- [4] Nature doi:10.1038/nature.2013.12658: Planck telescope peers into primordial Universe.
- [5] <http://vixra.org/abs/1010.0014> ; July 2010; Author Dan Visser, titled: "Deeper Properties derived from the 1-st derivative of the Dark Energy Formula Force".
- [6] [The Astrophysical Journal Letters Volume 712 Number 1](http://www.astro-physics.org/letters/volume712/number1) A. Kashlinsky *et al.* 2010 *ApJ* **712** L81 doi:10.1088/2041-8205/712/1/L81 A NEW MEASUREMENT OF THE BULK FLOW OF X-RAY LUMINOUS CLUSTERS OF GALAXIES
- [7] *Phys. Rev. Lett.* **98** 150801.
- [8] <http://physicsworld.com/cws/article/news/2007/apr/25/new-lower-limit-set-for-newtons-law>

References to all of DAN's Vixra-papers.

<http://www.vixra.org/abs/0909.0005>; September 1 2009, Authors: Dan Visser, Christopher Forbes, Keith Lees, titled "A Short Article On A Newly Proposed Model Of Cosmology".

<http://vixra.org/abs/0910.0016>, October 11, 2009; Author Christopher Forbes, titled "Elements of the Mathematical and Phenomenological Twin Tori Model of Physics and Cosmology".

<http://www.vixra.org/abs/0911.0061>; November 28 2009, Authors Christopher Forbes, Dan Visser, titled "A New Framework Based on the Quantum Gravity Twin Tori Model of Cosmology (Part 1)".

<http://vixra.org/abs/1010.0013> ; July 2010; Author Dan Visser: Describing the original "Dark Energy Force Formula" in retrospective.

<http://vixra.org/abs/1010.0014> ; July 2010; Author Dan Visser, titled: "Deeper Properties derived from the 1-st derivative of the Dark Energy Formula Force".

<http://vixra.org/abs/1010.0063> ; October 29 2010 Author Dan Visser, titled: "Dark matter and visible matter fundamentally related to a new cosmological model and Recalculated".

<http://vixra.org/abs/1101.0096> ; February 2 2011; Authors Dan Visser, Christopher Forbes, titled: "Entanglement related to cosmology-TTM".

<http://vixra.org/abs/1103.0012> ; March 11 2011; Authors Dan Visser, Christopher Forbes, titled: "Double torus cosmology reveals cosmic background to measure dark energy".

<http://vixra.org/abs/1104.0085> ; April 29 2011; Author Dan Visser, titled: Dark Matter Formula for Fundamental Calculation of Satellite Flybys in Hyperbolic Orbits.

<http://vixra.org/abs/1105.0022> ; May 13 2011 ; Author Dan Visser, titled: Hard theoretical evidence for the dark energy force formula in a double torus universe.

<http://vixra.org/abs/1105.0033> ; May 23 2011 ; Author Dan Visser, titled: Discussion needed about three (new) cosmological models based on mathematics and physics.

<http://vixra.org/abs/1107.0017> ; July 10 2011; Author Dan Visser, titled: "Recalculation-mechanism of the Big Bang in a Double Torus Universe".

<http://vixra.org/abs/1107.0042> ; July 22 2011; Author Dan Visser, titled: "Matter over anti-matter in a Double Torus".

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

<http://vixra.org/abs/1110.0030> ; October 9 2011; Author Dan Visser, titled: "New Dark Energy Formula theoretically calculates Faster-than-light-neutrinos".

<http://vixra.org/abs/1111.0106> ; November 28 2011; Author Dan Visser, titled: "A New Force Smaller Than the Smallest Gravity."

<http://vixra.org/abs/1112.0055> ; December 18 2011; Author: Dan Visser, titled: "Higgs-limited Boson Surface (Higgs-LBS) is a Mass-Surface - thus not a singular Higgs-boson - and is related to Faster-Than-Light-Neutrinos".

<http://vixra.org/abs/1201.0117> ; January 27 2012; Author Dan Visser, titled: "New Dark Energy and Letter to the Nobel Committee."

<http://vixra.org/abs/1203.0005> ; March 2 2012; Author: Dan Visser, titled: "Evidence for a closed-curved an cyclic Double Torus Universe."

<http://vixra.org/abs/1204.0043> ; April 12 2012; Author: Dan Visser, titled: "Duonistic Neutrinos Violate Relativity".

<http://vixra.org/abs/1206.0028> ; June 5 2012; Author: Dan Visser, titled: "New Dark Matter Cosmology".

<http://vixra.org/abs/1208.0036>; August 12 2012; Author: Dan Visser, titled: "Mathematical Follow-up for Dark Energy and Dark Matter in the Double Torus Universe".

<http://viXra.org/abs/1212.0159> ; December 12 2012; Author: Dan Visser, titled: "The Force of Gravity belongs to another Cosmology".

<http://vixra.org/abs/1301.0065> ; January 13 2013; Author: Dan Visser, titled: "The Mathematics Behind a New Dark Energy Force Related to Gravity and Anti-Gravity by Negative Mass Through a Dark Matter Force in Another Cosmology Named the 'Double Torus Hypothesis'."

<http://vixra.org/abs/1301.0158> ; January 26 2013; Author: Dan Visser, titled: "Double Torus Hypothesis In Perspective."

<http://vixra.org/abs/1303.0134> ; March 18 2013; Author: Dan Visser; titled: New Gravity-Physics and Mathematics Calculate Dark Matter-Accelerations and Prove a Recalculated Double Torus Universe.

DAN Visser, Almere, the Netherlands.

"Since my childhood I started painting, always having been interested in Cosmology. Nowadays several publications about the development of a new cosmological hypothesis for the universe, named the 'Double Torus hypothesis', are hosted in the vixra-archive (category Mathematical Physics). I don't think the Big Bang really exists. Neither do I think the Big Bang started after a gravitational contraction of a previous universe as a Big Bounce. In the Big Bounce the compact state of all neutrinos together is assumed to form a super-fluid, which gives rise to space-time-expansion, suggesting a new Big Bang, and would repeatedly happen over times. Even I don't think, that repeatedly created Big Bang's from collisions of large black holes, which could be left over in empty space-time, is a real option, called Conformal Cyclic Universe. Instead I have proof for the Universe to be a 'Double Torus' of (new) dark energy-time, recalculating dark matter into visible matter, in a circular cyclic Double Torus cosmological environment. My background has been in Art, Science, Technical Projects, Advise and General Management, since having been graduated 1977 as an electronic-engineer in 1977. I studied Science and Cosmology as an autodidact, always continuing painting as a means of expressing my cosmological ambitions. Still I do so. Since a few years my paintings have become increasingly valued, because of my extraordinary ideas about another perception of the Universe. One could name me as the founder of the 'Double Torus-dynamics' The

latest publications comprehend a set of formulas, which describe the basics of these dynamics. Still the hypothesis continues to develop its implications.

An overview of my publications can be found at http://vixra.org/author/dan_visser.

DAN is Available for:

- > Invitations for presentation of the hypothesis of the 'Double Torus for the Universe'.
- > Orders for new Paintings related to the hypothesis of the Double Torus Universe (on special request).
- > Your request for Art-investment into extraordinary new cosmological paintings by buying from my own Private Collection.

Contact: dan.visser@planet