Dutch pensionado changes the Theory of Relativity in dynamics of a Holographic Universe.

Author: Ing. D.C.M. Visser (DAN)[1]

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Abstract.

The formulation of the Einstein-field equations are changed: Herewith I present dynamical formulations for the multiplication of Big Bang-universes embedded in an eternal rotating holographic universe. This is beyond the current assumption the universe could be a hologram; that assumption was made without detailed knowledge of shape and deeper dynamics of a holographic universe. The new formulations introduce a dynamical process of deeper dynamics by which an object or subject could be transformed to another part of the holographic universe. This may happen by recalculation. But how? The recalculation described here is based on an amount of 'duo-bits of dark matter', which recalculate the quantum-dynamics. The recalculation-process emerges from a domain below the Planck-scale. The 'duo-bit recalculation' starts for a calculated lower-limit of Planck-areas. From my calculation follows, for example: 17 x 10^53 'duo-bits' can recalculate 64 x 10^6 Planck-areas. This subquantum informational process is embedded in the modified Einstein-field-equations by a geometrical ratio of quantum-gravity and Planck-areas. This ratio is correlated to an additional energy-tensor of dark matter-energy. The geometrical ratio is more refined than the Einstein cosmological constant, which is only a number. The refined ratio replaces the cosmological constant. Therefore the main-issue in this paper is, that the accelerated space-expansion in the current Big Bang-universe is based on a 'fake-dynamic' due to one of many possible quasi Big Bang-universes that directly exist in physical reality. Or in other words: Directly existing parallel universes are part of the holographic dynamics. According to the new formulations parallel universes do not exist outside the conservative Big Bang-universe. In an appendix a description is added for the media written in Dutch.

1. Preface.

After years of step by step puzzling and writing articles about a new shape and dynamics for the universe, I now present the results of a dynamical description of a holographic universe. I therefore changed the Einstein-field equations. However, the original outlook of the Einstein-field-equation is not violated. Eventually, and under restrictions of (new) information-parameters, the original Einstein field-equation returns to physics again (but without the cosmological constant). New information-parameters from a deeper domain than the Planck-scale recalculate quantum-dynamics. In other words: More relativistic universe are possible in the present, which means the universe can be interpreted as a multiplication of quasi Big Bang-universes. That is implemented in my modification of the Einstein-field-equation. Every quasi accelerated space-expanding Big Bang-universe is the product of a recalculation that starts from a lower-limit of Planck-areas in the surroundings of the Planck-scale. At that level the dark matter-energy is getting involved by means of 'duo-bits' from below the Planck-scale. These dynamics are beyond a former assumption that stated the universe could be a hologram. This was without knowledge about shape and dynamics for a universe embedding holograms. Through my new formulations the shape and dynamics of a holographic universe will be more clear. I think we will be able to travel differently through space in the future than before 2016. When exactly I do not know. What I do know is that equipment for the recalculation of objects and subjects, which have to be recalculated by dark matter-energy, will let us migrate to another part of the holographic universe without space as an obstacle. Such a holographic universe is the replacement for the current believe of Big Bang-universe. The holographic universe behaves like an *eternal rotating time-torus-universe*. So, what we need is using dark mater-equipment to travel by physical information-transformation. Therefore we first have to know what dark matter really is. Those who read my framework of articles come to the understanding that dark matter is different from

what is thought at present. In an additional introduction (appendix 1) a Dutch explanation is given. All my articles describing the framework of this new universe are necessarily posted in an alternative archive[1], because the regular institutionally affiliated archives are forced to be too commercial and eye-blinded by creativity to emphasize new possibilities for cosmology.

2. Pre-formulation for the change of the Einstein field-equations.

Introduction.

A. The first reference made, is the use of a 4D-acceleration, which I derived in my former paper[3]:

$$\left(k_{de}\right)^4 = \pm\frac{1}{2}c.\left(\frac{c^3}{nL_p}\right)^2\left[\left(ms^{-2}\right)^4\right] \qquad (1)$$

It appears to be dimensionally shaped as a 4D acceleration. That triggered me to think about changing the Einstein-field-equations. Therein c = light-speed in vacuum; n = an (integer) amount of Planck-lengths (L_p). Equation (1) is the result of combining two different expressions of dark matter in a former paper of mine [4,5]. At the left-side of the equal-sign k_{de} is the acceleration-product of quantum-Newton-gravity- and dark matter-acceleration. At the right-side of the equal-sign the result is a constant rotating time-torus of light. Equation (1) can be divided in two parts to contribute in modification of the Einstein-field-equation by separating them in a geometry-part and an energy-part, as follows:

$$\frac{1}{n^2\left(L_p\right)^2} = \pm\frac{\left(k_{de}\right)^4}{\frac{1}{2}c.c^6} \qquad (2)$$

B. The second reference is the new dark energy-force described in reference[6] as follows:

$$F_{de} = qF_N{}^{G=1} \otimes \pm sqF_{dm} \qquad (3)$$

The term (qF_N) is a minimum quantum gravity for G=1 (just the opposite of maximum gravity for black holes). This is because I turned inside-out black holes, just as I did for the universe; this is derived according to my thought-experiment in reference[7]. The other term (sqF_{dm}) is the dark matter-force. Equation (3) can be detailed, as follows:

$$F_{de} = m_{vm}.\left(k_{de}\right)^{\frac{1}{2}}\left[m^2\right]\otimes\left(m_{dm}\right)^2.\left(\pm k_{de}\right)^{\frac{1}{2}}\left[\left(m^2s^{-1}\right)^3\right] \qquad (4)$$

Wherein $(k_{de})^{½}$ is the minimum acceleration of quantum-Newton-gravity dimensionally reduced to a surface, while the other $(k_{de})^{½}$ for dark matter generates a 3D-dark flow on a surface of a torus. In this equation a distinction is made between visible mass (m_{vm}) and dark matter-mass (m_{dm}). This also can be more detailed, as follows:

$$\left(m_{dm}\right)^2.\left(k_{de}\right)^{\frac{1}{2}} = \left(m_{dm}\right)^2\left[m^2m^2ms^{-1}\right].\left(k_{de}\right)^{\frac{1}{2}}\left[ms^{-2}\right] \qquad (5)$$

Herein the dimensions $[m^2m^2\ ms^{-1}]$are 'duo flat spacious particle' with 'mutual spin-momentum' both subject to the rotation-acceleration $(k_{de})^{1/2}$ of the torus. I have named these particles *duonistic neutrinos*. These different from the known three types of neutrinos.

Equation (5) will be the tool to assemble the new the energy-tensor in the modified field-equation. But first the geometrical part will be given shape, as follows:

C. In order to line up the geometry, equation (3) offers: $\pm sqF_{dm} = \frac{F_{de}}{qF_N{}^{G=1}} = \frac{1}{qF_N{}^{G=1}}$ (6)

Wherein F_{de} = 1 is fully active [see D note-1; F note-2]. This means for an increasing integer amount (k_n) of quantum-Newton-gravity (expressed as surfaces) the subquantum dark matter-force will decrease with (k_n), as follows:

$$\pm\frac{sqF_{dm}}{k_n}=\frac{1}{k_n qF^{G=1}_{\ N}} \tag{7}$$

From equation (7) follows the contribution by dark matter to the energy-tensor and accordingly to the right-side of equal-sign a contribution to the geometry. So, the larger the amount of quantum-Newton-gravity, the smaller the energy of the dark matter-force to the energy-tensor.

D. However, it could be wise to remain the amount of quantum-Newton-gravity constant, because then its strength will be dependent on the amount of Planck-area.

In that case the equation (2) can be written as:

$$\frac{k_n.qF^{G=1}_{\ N}}{n^2\left(L_p\right)^2}=\pm\frac{\left(k_{de}\right)^4}{\frac{1}{2}c.c^6} \tag{8}$$

According to equation (8), follows:

$$\frac{\pm\frac{k_n}{sqF_{dm}}}{n^2\left(L_p\right)^2}=\pm\frac{\left(k_{de}\right)^4}{\frac{1}{2}c.c^6} \tag{9}$$

From equation (9) follows:

$$\frac{1}{n^2\left(L_p\right)^2}=\pm\frac{\left(k_{de}\right)^4}{\frac{1}{2}c.c^6}.\frac{sqF_{dm}}{k_n} \tag{10}$$

[note-1]: Equation (10) represents a geometrical ratio of constant quantum-Newton-gravity by *1 [m²] and n² x Planck-area in [m²]*, which is a dimensionless ratio and can be used to modify the Relativity-field equations. The right-side of the equation can be used for the new energy-tensor.

E. However, before beginning to perform that, I firstly will detail the right part of equation (10) according to equation (1) and (5), as follows:

$$\pm\frac{\left(k_{de}\right)^4}{\frac{1}{2}c.c^6}.\frac{\pm sqF_{dm}}{k_n}=\frac{\pm\frac{1}{2}c.c^6}{n^2\left(L_p\right)^2}.\frac{1}{\frac{1}{2}c.c^6}.\frac{\left(m_{dm}\right)^2.\pm\left(k_{de}\right)^{\frac{1}{2}}}{k_n} \tag{11}$$

Now equation (11) can be prepared for an adaption to the Planck-mass by $m_p=m_{dm}$, because dark matter-mass is originated from below the Planck-scale. Then modification of the field-equations could be accepted as real. The profit will be that information (expressed by Planck-areas) becomes cognitive visible from the under-laying dynamic of dark matter.

F. Now the energy-tensor (ironically indexed by my name) will follow from equation (11), as follows:

For $m_p=m_{dm}$ follows the new energy-tensor, as follows:

$$T_{dan} = \pm \frac{\left(k_{de}\right)^4}{\frac{1}{2}c.c^6} . \frac{\pm sqF_{dm}}{k_n} = \pm \frac{\left(m_p\right)^2 . \left(k_{de}\right)^{\frac{1}{2}}}{n^2 k_n \left(L_p\right)^2} = \pm \frac{1}{n^2 k_n} m_p \frac{m_p}{\left(L_p\right)^2} \left(k_{de}\right)^{\frac{1}{2}} \quad (12)$$

$$T_{dan} = \pm \frac{1}{n^2 k_n} m_p \frac{c^2}{G} \left(k_{de}\right)^{\frac{1}{2}} = \pm \frac{\left(k_{de}\right)^{\frac{1}{2}}}{n^2 k_n} . \frac{E_p}{G} \left[\left(ms^{-2}\right) \left\{ \left(Nm\right) \left(N^{-1} kg^2 m^{-2}\right) \right\} \right] \quad (13)$$

$$T_{dan} = \pm \frac{\left(k_{de}\right)^{\frac{1}{2}}}{n^2 k_n} . \frac{E_p}{G} \left[\left(kgs^{-1}\right)^2 \right], \text{ which is mass per second in a surface (2D).} \quad (14)$$

The energy-tensor is proportional to the strength of the rotation-acceleration of the torus and inverse proportional to as well the amount of Planck-area (equivalent to information) as the amount of quantum-Newton-gravity (amount of surfaces).

Both parts in this ratio $\frac{\left(k_{de}\right)^{\frac{1}{2}}}{n^2 k_n}$ can vary.

[Note-2]: A new dark energy-force (F_{de}) is constant for a given amount of dark energy(Y), which follows from one of the first papers in 2009[8], wherein $\alpha \left(F_{de}\right)^2 + \beta F_{de} + Y = k$ with $\alpha = G\left[Nm^2 kg^{-2}\right]$ and $\beta = 0$ and $k \in \mathbb{R}$. This equation confirmed my original dark energy force-formula (F_{de}), which was derived from my thought-experiment in 2004. Thereby an amount of dark energy (Y) was introduced. The Y is negative. Later it would appear to be due to the relation with time smaller than the Planck-time and my *duonistic neutrinos* according to equation (5).

3. Modified dynamics of the Theory of Relativity to emphasize a holographic dynamical Universe.

Here the equations from the introduction A to F are used for the modification of the original Einstein Relativity-equations, which represent the acc*elerated expansion according to experimental results from 1998*:

$$G_{uv} + \wedge g_{uv} = \frac{8\pi G}{c^4} T_{uv} + T_{vac} \quad (15)$$

A part of equation (15) will be replaced by an *intrinsic multiplication of relativistic space-time*. This is performed also by replacing the geometry of the cosmological constant $\wedge g_{uv}$ into G_{dan} by a more refined geometry. Accordingly also T_{vac} will be replaced into T_{dan}, as follows:

$$G_{uv} + G_{uv} . G_{dan} = \frac{8\pi G}{c^4} T_{uv} + \frac{8\pi G}{c^4} T_{uv} . T_{dan} \quad (16)$$

From equation (16) follows:

$$G_{uv}\left(1 + G_{dan}\right) = \frac{8\pi G}{c^4} T_{uv}\left(1 + T_{dan}\right) \quad (17)$$

In this way eventually the replacement of an accelerating space-geometry, which is equivalent to a constant vacuum-energy-density $\wedge = \frac{8\pi G\rho_{vac}}{c^2}$, is executed towards a dimensionless geometrical refined-ratio, as follows:

$$G_{dan} = \frac{qF_N{}^{G=1}\left[m^2\right]}{n^2\left(L_p\right)^2\left[m^2\right]} = \frac{1\left[m^2\right]}{n^2\left(L_p\right)^2\left[m^2\right]} = \frac{1}{n^2\left(L_p\right)^2} \tag{18}$$

The reference is equation (10), while equation (17) in turn is equivalent to a new energy-tensor, as follows:

$$T_{dan} = \pm\frac{\left(k_{de}\right)^{\frac{1}{2}}}{n^2 k_n}.\frac{E_p}{G}\left[\left(kgs^{-1}\right)^2\right] \tag{19}$$

Reference is equation (13). Moreover, k_n is an integer amount of square meters quantum-Newton-gravity. The n^2 is an amount of Planck-area. The dimension presents mass per second in 2D; time here is relativistic time, because the Planck mass was substituted for the dark matter mass. However, now it is important to realize that if the original dark matter mass would have been used, it would have been necessary to use just the metric dimensions of mass, as follows:

$m^3s^{-2} = G^{-1}kg$. From this follows: $kg = Gm^3s^{-2}$ (20)

The dimension of equation (19) then changes in:

$$\left[\left(kgs^{-1}\right)^2\right] = \left[\left(Gm^3s^{-2}s^{-1}\right)^2\right] = \left[G^2\right]\underbrace{\left[m^2m^2ms^{-1}ms^{-2}\right]}_{equation(5)}\left[s^{-3}\right] \tag{21}$$

According to equation (3) - and the explanation thereby - a minimum Newton-quantum-gravity is obtained for the dimension $G=1$. This must be applied to equation (21). But the G in the equation (19) is $G \neq 1$, because it is existing above the Planck-scale; thereby the IAU and CODATA-commission[9] analyzed that G is uncertain with 10^{-4}.

Equation (21) also shows that equation (5) is part of the dimension of the energy-tensor, Equation (5) is rotating time-torus smaller than the Planck-scale. This means the dimension of equation (19) can be rewritten into a more energetic dimension that equivalently fits the new energy-tensor, as follows:

$$T_{dan} = \pm\frac{\left(k_{de}\right)^{\frac{1}{2}}}{n^2 k_n}.\frac{E_p}{G}\left[\underbrace{\left\{\left(m^2s^{-1}\right)ms^{-2}\right\}}_{duo-1}\underbrace{\left\{\left(m^2s^{-1}\right)ms^{-2}\right\}}_{duo-2}\right] \tag{22}$$

The dimension of energy-tensor T_{dan} is a duo flat space-particle per second, each rotating in the surface of a time-torus. I named these particles duo-1 and duo-2, or *duonistic neutrino's*, which could be better identified as flat time-particles than as flat space-particles, because dominantly related to time smaller

than the Planck-time over relativistic time. The details about that follow from the information-calculation of T_{dan} in chapter 4 and 7.

4. Calculation of T_{dan}

From equation (22) the value of the energy-tensor T_{dan} can be calculated, as follows:

$$T_{dan} = \pm \frac{1.78x10^{-14}}{n^2 k_n} . \frac{1.956x10^{9}}{6.67428x10^{-11}} \left[\underbrace{\left\{ \left(m^2 s^{-1} \right) ms^{-2} \right\}}_{duo-1} \underbrace{\left\{ \left(m^2 s^{-1} \right) ms^{-2} \right\}}_{duo-2} \right] \qquad (23)$$

$$T_{dan} = \pm \frac{0.521656x10^{6}}{n^2 k_n} \left[\underbrace{\left\{ \left(m^2 s^{-1} \right) ms^{-2} \right\}}_{duo-1} \underbrace{\left\{ \left(m^2 s^{-1} \right) ms^{-2} \right\}}_{duo-2} \right] \qquad (24)$$

5. Conditions of the new energy-tensor.

The value of the energy-tensor is dependent on the amount n^2 Planck-area and the amount k_n surfaces of quantum-Newton-gravity. Both are integer amounts, whereby $k_n = \sqrt{n^2} = n$. So, from that follows $n^2 k_n = n^3$. This means for $n^3 \gg 0.521656x10^6$ the original Einstein-field-equation can be returned to an expanding universe (note! : not accelerated expansion), because $T_{dan} \ll 1$ according to equation (16) and the $G_{dan} \ll 1$ according to equation (reference F note-1). From this follows: $n \gg 0.80499x10^2$.

In principle the Einstein-field-equation (15) for at least an amount $n^2 \gg 0.648\text{x}10^4$ Planck-area returns. But when is taken into account the uncertainty in the value of G with 10^4 then at least an amount of $n^2 \gg 0.648\text{x}10^8$ Planck-area is needed to return to the Einstein field-equation (15).

However, more important, when n^2 gets smaller, such as for an amount of $n^2 \ll 0.648\text{x}10^8$ Planck-area, then one the *duonistic dark matter* starts effecting the energy-tensor of equation (24).

For roughly 64 million Planck-areas a transformation to another part in the rotating time-torus of the holographic universe starts to happen. (25)

6. Dimension of the combined energy-tensor in the new holographic universe.

Reference is equation (16), as follows:

$$G_{uv} + G_{uv} . G_{dan} = \frac{8\pi G}{c^4} T_{uv} + \frac{8\pi G}{c^4} T_{uv} . T_{dan} \qquad (26)$$

G_{dan} is the dimensionless ratio according to equation (18 and 10 note-1), while T_{uv} is dimensionally expressed in $\left[Jm^{-3} \right]$.

This means: On the left-side of equation (25) the dimensional expression remains what it was in the original equation (14), namely: $G_{uv}\left[m^{-2} \right]$.

However at the right-side the total energy-dimension changes, as follows:

$$\frac{8\pi G}{c^4} T_{uv}\left[Jm^{-3} \right].T_{dan}\left[\left(Gm^3 s^{-2} s^{-1} \right)^2 \right] \quad \text{; reference equation (21)} \tag{27}$$

With for $T_{dan} \rightarrow G = 1$, as explained in equation (3)

from this follows the combined energy-tensor:

$$\frac{8\pi G}{c^4} T_{uv}.T_{dan}\left[J\left(ms^{-2} \right)^3 \right] \qquad ! \tag{28}$$

This is an accelerated energy-expansion in 3D !!!

Equations (25, 26 and 27) show me that a holographic universe produces a multiplication of relativistic universes all looking like an accelerated 3D expanding Big Bang universe. So the Big Bang is an quasi Big Bang-perception and not really the universe. The really universe is the eternal rotating holographic universe, wherein an object or subject could be transformed to another part in the rotating holographic universe.

7. Calculations.

The result mentioned in (25) is based on amounts of Planck-area. This can be converted to bits by using the holographic principle[10], according to:

$$1bit = 0.724x10^{-65}\left[cm^2 \right] \tag{29}$$

From this follows**:**

$$1\left(L_p \right)^2 = 2.6121x10^{-70}\left[m^2 \right] = 2.6121x10^{-66}\left[cm^2 \right] \tag{30}$$

From equation (25) follows:

$$64.8x10^6\left(L_p \right)^2 = 64.8x10^6 x2.6121x10^{-66} = 169{,}26408x10^{-60}\left[cm^2 \right] \tag{31}$$

From this follows the amount of bits, as follows:

$$\frac{169{,}26408x10^{-60}\left[cm^2 \right]}{0.724x10^{-65}\left[cm^2 \right]} = 23{,}379\text{x}10^6\text{bits} \tag{32}$$

Equation (32) shows the lower-limit of the amount of bits. For less bits a refined amount of bits will initiate the recalculation of quantum-gravity by the 'duo-bits of dark matter' (duonistic neutrinos) from below the Planck-scale; the reference is the dimension of equation (24). I earlier derived that in a former paper. Hence, for the refinement below the Planck-scale I refer to that reference[11], wherein I derived:

$$1idtt = 1.37566x10^{-43}\left[m^2\right] = 1.37566x10^{-47}\left[cm^2\right] \tag{33}$$

From this follows:

$$1idtt.cm^{-2} = 1.37566x10^{-47} \tag{34}$$

An idtt is an *inter-dimensional-time-translator* (idtt-movement), which recalculates the amount of bit-information above the Planck-scale, starting below the lower-limit as mentioned in equation (32) by means of the 'duo-bits of dark matter' which rule the scale below the Planck-area, and expressed as: $duobits \downarrow \left(L_p\right)^2$.

The amount of 'duo-bits' for a time-torus, which I already calculated in reference-[11] is as follows:

$$0{,}7269238\text{x}10^{43} idtts.m^{-2} = 0{,}7269238\text{x}10^{39} idtts.cm^{-2} \tag{35}$$

However, not equation (35), but equation (34) is used to calculate the amount of 'duo-bits of dark matter' related to where the lower-limit starts to recalculate the quantum-gravity. Hence equation (32) is used to calculate the dynamics of amount of 'duo-bits' that affect the recalculation of quantum-gravity. The amount of 'duo-bits' is as follows:

$$duobits \downarrow \left(L_p\right)^2 = \frac{23{,}379\text{x}10^6 \text{bits}}{1.37566x10^{-47}\left[idtt.cm^{-2}\right]} \cong 17\text{x}10^{53}\left[\frac{bits}{idtt}.cm^2\right] \tag{36}$$

This is NEW!! Never before anyone came with physics-mathematics to refine the Planck-scale. I remember that G. 't Hooft (Nobel prize-winner NL) once said: "I don't know the mathematics below the Planck-scale". Maybe he meant no abstract mathematics. Still I have found a refinement in bits-information for when and how dark matter can recalculate the quantum-gravity in the direct neighborhood of the Planck-area from a domain below the Planck-scale. I didn't need the modern string- or M-theory, or the abstract mathematics for point-particles.

8. Conclusions.

I changed the Einstein-field-equation in the multiplication of quasi Big Bang-universes in a holographic universe is given by:

$$G_{uv}\left(1+G_{dan}\right) = \frac{8\pi G}{c^4} T_{uv}\left(1+T_{dan}\right) \tag{37}$$

With a dimensionless geometrical-tensor:

$$G_{dan} = \frac{qF_N{}^{G=1}\left[m^2\right]}{n^2\left(L_p\right)^2\left[m^2\right]} = \frac{1\left[m^2\right]}{n^2\left(L_p\right)^2\left[m^2\right]} = \frac{1}{n^2\left(L_p\right)^2} \tag{38}$$

And an energy-tensor:

$$T_{dan} = \pm \frac{0.521656x10^{6}}{n^{2}k_{n}} \left[\underbrace{\left\{ \left(m^{2}s^{-1} \right) ms^{-2} \right\}}_{duo-1} \underbrace{\left\{ \left(m^{2}s^{-1} \right) ms^{-2} \right\}}_{duo-2} \right] \quad \text{dark matter tensor} \qquad (39)$$

Where G_{uv} and T_{uv} remain unchanged. Just as G/c⁴ remains the Newton-constant and c (the light-speed in vacuum) as a constant-ratio for the field-equations.

The particles *duo-1 and duo-2 are (new) flat space-particles mutual entangled by a sub-quantum spin-momentum*, which particles I named *duonistic neutrinos*, and which rotate on the surface of a time-torus. The duo-particles are related to time smaller than the Planck-time, which I named refined time. Their manifestation offers the dynamic of recalculation of the quantum-gravity in a holographic universe.

The new tensors (geometrical and energetic) change the universe into a dependency of dynamics that relates directly to information. Firstly here was presented an integer amount of Planck-area, but these can be replaced by information-bits per square meter. So I did.

But that was not all, I added my refinement to the recalculation of the quantum-gravity. This is NEW!! Never before anyone came with physics-mathematics to refine the Planck-scale.

The amount of 'duo-bits' that recalculate the quantum-gravity is:

$$duobits \downarrow \left(L_{p} \right)^{2} \cong 17\text{x}10^{53} \left[\frac{bits}{idtt} .cm^{2} \right] \qquad (39)$$

The 'duo-bits' operate in a geometry of the surface of a time-torus, which is located in a deeper domain than the Planck-scale, noted as $\downarrow \left(L_{p} \right)^{2}$, wherein time (in 2D) is smaller than the Planck-time. Their energy and dimension is given as in equation (38), hence 'duo-bits' are particles (duonistic neutrinos). One might say: "this is the refinement of quantum-mechanics; and yes it is!"

9. Acknowledgement.

I thank Christopher Forbes[8] (UK) for his insight and email-contact from 2009-2011 (never heard of him anymore). I also thank Markos Georgallides[12] (CY) for giving me insights in his ideas using specifically authentic mathematics on Euclid-geometry in order to prove the Big Bang does not exist. This gave me inspiration for my own authentic way to prove how the dynamics of the universe could be modified to a holographic universe based on 'duo-bits' below the Planck-scale'.

10. References.

[1] www.vixra.org/author/dan_visser; Dan Visser is a retired independent cosmologist and art-painter (DAN); his website is used to establish his new theory of the an eternal rotating dynamical holographic universe, which replaces the conservative accelerated Big Bang-universe.

[2] http://phys.org/news/2015-12-holometer-theory-space-time.html

Remark Dan Visser: Fermi-lab (USA) started performing experiments with a holo-meter (the team of Graig Hogan)[2]. Their goal is to detect digitalized space-time instead of smooth space-time. The question is: Does extreme fine energetic packages exist as space-time, or not? Their first result was: sensitivity of the holo-meter must be refined and extended in different configurations. For example:

rotation of a 2D-surface has to be involved. Would one invite me to the Fermi-lab ("although I am retired"?)

[3] viXra:1506.0192: Formulas Prove Big Bang-Universe Is Visible Hologram Of Gravity Eternally Flowing Along In Rotating Time-Torus-Universe.

[4] viXra:1408.0188: Dark Matter Is Time-clock Faster Than Light In Vacuum.

[5] viXra:1508.0125: View on the Triple Torus Hologram of the Universe.

[6] viXra:1405.0306 Eternal Rotational Dark Torus Suggests Visible Big Bang in the Double Torus Universe.

[7] viXra:1010.0013: Thought-Experiment Provides a Formula for (New) Dark Energy Force.

[8] viXra:0909.0005: A Short Article On A Newly Proposed Model Of Cosmology.

[9] The NIST Reference on Constants, Units, and Uncertainty. US National Institute of Standards and Technology.

[10] arXiv:hep-th/0003004v2, May 16 2000; the holographic principle (open lecture); author: G.'t Hooft.

[11] viXra:1101.0096: Entanglement Related to Cosmology-TTM (Twin-Tory-Model); that abbreviation was changed in Double Torus Theory (DTT) after I started to develop additional articles myself. Then I also introduced the abbreviation rTTH for rotating Time-Torus-Universe, or Triple Time Torus Hologram.

[12] https://www.lap-publishing.com/catalog/details/store/gb/book/978-3-659-77849-0/the-parallel-postulate,-the-special-problems-and-relativity?search=The Parallel Postulate.

Appendix (Dutch).

Nederlands gepensioneerde verandert Relativiteitstheorie in dynamiek van een Holografisch Heelal.

De formulering van de Einstein-veldvergelijkingen is door mij veranderd: Hiermee presenteer ik een dynamische formulering voor de multiplicatie van een Big Bang-heelal dat is ingebed in een eeuwig roterend holografisch heelal. Dit gaat verder dan de gangbare aanname van een heelal dat een hologram is; die aanname was zonder kennis van diepere dynamica. De nieuwe formulering introduceert een proces van diepere dynamica waarmee een object of subject getransformeerd kan worden naar een ander deel van het holografische heelal. Dit kan gebeuren door herberekening. Maar hoe? De herberekening die hier beschreven wordt, is gebaseerd op een aantal 'duo-bits van donkere materie', die de kwantumdynamiek her-berekenen. Het herberekening-proces komt voort uit een gebied beneden de Planckschaal. De herberekening door 'duo-bits' start vanaf een uitgerekende lagere limiet van Planck-oppervlakken. Vanuit de berekening volgt bijvoorbeeld: 17 x 10^53 'duo-bits' kunnen 64 x 10^6 Planck-oppervlakken her-berekenen. Dit sub-kwantum informatieve proces heb ik ingebed in de gemodificeerde Einstein-veldvergelijkingen. Dat heb ik gedaan door een geometrische verhouding van kwantumzwaartekracht en Planck-oppervlakken in te voeren. Die verhouding is gecorreleerd aan een toegevoegde energie-tensor van donkere materie-energie. De geometrische verhouding is verfijnder dan de Einstein kosmologische constante, wat alleen maar een getal is. De verfijndere verhouding vervangt de kosmologische constante. Daardoor is het belangrijkste punt in dit artikel, dat de versnelde ruimte-uitdijing van het gangbare Big Bang-heelal berust op een 'bedrieglijke dynamica' die te wijten aan de vele mogelijke quasi Big Bang-heelallen die al direct bestaan in de fysische realiteit. Oftewel: direct bestaande parallelle heelallen maken

deel uit van de holografische dynamiek. Volgens de nieuwe formuleringen bestaan parallelle heelallen buiten het conservatieve Big Bang-heelal niet.

Na jaren lang stapsgewijs artikelen te hebben uitgewerkt over een nieuw heelal presenteer ik hier een uitwerking die de dynamiek van een holografisch heelal beschrijft. Die uit zich in een wijziging van de veldvergelijking van Albert Einstein. Dat gaat verder dan een vroegere aanname dat het heelal een hologram zou zijn. Dat was zonder de kennis over vorm en dynamiek voor welk ander heelal dat zou kunnen zijn. Mijn uitwerkingen brengen daar verandering in. Hierdoor denk ik dat we in staat zullen zijn op een andere manier door de ruimte van het heelal te reizen. Wanneer dat precies gaat gebeuren weet ik niet, maar ik weet wel dat apparatuur voor het her-berekenen van donkere materie ons zal kunnen brengen naar een ander deel van het holografisch heelal. Een dergelijk heelal gedraagt zich als een *eeuwig roterend tijd-torus-heelal*. Een dergelijke transformatie in het hologram voorkomt dat we door de ruimte moeten reizen zoals dat nu gebeurt. Dat schiet niet op. Maar mijn uitwerkingen leggen bloot dat waar we ook terecht komen in het holografische heelal, we telkens een heelal zullen aantreffen dat er als een versneld uitdijend Big Bang heelal uitziet; dit zal echter met een andere versnelling uitdijen. Toch zullen we tegen die tijd weten dat dit het versneld uitdijen van het heelal bedrieglijke dynamiek is.

Al langer bestonden er opvattingen over een heelal dat als hologram opgevat kon worden. Maar een formule voor de dynamiek ontbrak. Het enige dat er toe aanleiding gaf was dat de eenheid van oppervlak, is uitgerekend voor één bit. Wie 'bit' zegt, zegt energiepakketje, maar of dat voor de glad-continue ruimtetijd van Albert Einstein geldt, is tot nu toe niet bewezen: Massa buigt wel ruimte en andere nabije massa's volgen die buiging, maar dat gebeurt ogenschijnlijk zonder bekendheid over verdere details van ruimte. Licht in het vacuüm (ruimte)) blijkt al wel uit energie-pakketjes te bestaan. De vraag is dus of ruimte zelf ook uit energie-pakketjes bestaat. Dit moet blijken uit experimenten. Het Fermi-lab is daarmee begonnen door een 'holo-meter' te bouwen.

De kern van mijn nieuwe formuleringen vertalen zich in een roterende licht-torus die het gevolg is van een wisselwerking tussen kwantumzwaartekracht en sub-kwantum-informatie uit een gebied beneden de Planckschaal. Die is bepaald door 'platte donkere deeltjes', die zich gedragen zich als 'duo-deeltjes' met een onderling gemeenschappelijk draaiingsmoment (spin). Deze 'duo-deeltjes' staan bloot aan rotatie-versnelling in een torus. Die 'duo-deeltjes' heb ik *duonistische neutrino's* genoemd omdat het de bouwstenen van het holografische heelal zijn. Het zijn eigenlijk meer tijdsdeeltjes dan ruimte-deeltjes. Dat wil zeggen: Experimenten moeten meer worden toegespitst op detectie van asymmetrie in de tijd dan op het meten van vaste deeltjes (zoals 'wimps' voor donkere materie).

Er zijn talloze artikelen door mij geschreven in de aanloop naar dit artikel. Dat gaat terug tot een nieuwe formule voor donkere energie uit 2004 die ik in 2009 publiceerde. Daarbij had ik zowel het heelal als de zwarte gaten daarin, in een gedachtenexperiment binnenstebuiten gekeerd. Die formule kon worden uitgesplitst in kwantumzwaartekracht en donkere materie-kracht. Stapsgewijs heb ik daarna mijn artikelen uitgewerkt en tenslotte de formule gevonden waarmee ik de vergelijkingen van relativistische ruimtetijd ben gaan veranderen in een dynamiek van een roterend holografisch heelal. Een dergelijk heelal omvat al direct alle mogelijke parallelle heelallen die bij het huidige conservatieve versneld uitdijende Big Bang-heelal buiten het heelal liggen. Die perceptie lijkt me achterhaald. Daarom breng ik dit in de publiciteit. Mijn bevindingen uit mijn artikelen kunnen het af zonder een snaar- of M-theorie. Mijn taal voor de artikelen is die van natuurkundige wiskunde van puntdeeltjes.

Auteur: ing. Dan Visser, M. Ruyshof 20, 1333 JL Almere, Netherlands; telefoon: +31 (0)36 54 99 701.

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