

## GENESIS COMPLETED! THE STEADY STATE QUBIT UNIVERSES

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### *Abstract*

*Genesis, the creation of our cosmos in six times 24 hours with one day rest by super massive black holes, white radiators having a crossing time for the light speed over the event horizon of about 24 hours, can be derived by group symmetric considerations based on Monster symmetry. The age of our cosmos seems to be 13.7 billion years as a representation of the omega condition breaks down in:*

$(24^3 \times \sqrt{2} \times 6)^2 = (1.173005 \cdot 10^5)^2 = 1.375941 \cdot 10^{10} / 1.002453^2 = 1.3692 \cdot 10^{10}$  yrs or:  
*as observed*  $1.375941 \cdot 10^{10} \times 1.002453^2 = 1.383 \cdot 10^{10}$  yrs

*The cubic power of 24 hrs represents two dark matter black holes accelerated in opposing direction to an end velocity of  $\frac{1}{2}\sqrt{2} c$  in a time sequence cycle of six of those cubes. The ratio 1.002453 is a genuine deviation derived from the symmetry number of the Monster. The time sequence cycle is repeated till the overall mass of the universes has been reached.*

*The day of rest represents the formation of a super massive white radiator, black hole as remnant in present-day galaxies. Given by:  $24 \times 6 = 144 \times \sqrt{4/3} = 166.2768$  hrs or  $7 \times 24 = 168$  hrs.*

*The  $24 \times \sqrt{4/3} = 27.7128$  hrs is the expansion time needed for the formation of the ultra fast and ultra light mediating medium having an maximum momentum of ( $\frac{1}{2} c$ ) effective due to acceleration to the end velocity to  $\frac{1}{2} \sqrt{2} c$ .*

*The alpha condition or the inflationary period of our cosmos, the onset in opposing time symmetries confirms the initial state of the Big Bang for the group symmetry Monster number, a compacted state for neutrons having an imaginary macro mass in the order of Jupiter with event horizon of one metre. The so called inflationary period, alpha initial condition, lasted for 768 yrs times 2 due to the fast mediation medium. All massive white radiators as macro quantum states were released during that period.*

### *Par 1 Summary*

The general conclusion is that the universes are steady state with time going to infinity due to the dark matter contained between the begin and end condition of the steady state for mass energy of the universes. Further the universes are solely subjected to the *weak gravity condition* for the proton and electron or the anti matter state, both consisting of a normal and conjugated states. The binary string of the electron in qubits per meter as the reciprocal of the Compton length corresponds to the number of super massive black holes at the onset of our cosmos. This final scaling exercise confirms the validity for the dynamic steady state of the universe. *See overview par 6.*

In this article it has been shown that our cosmos is the absolute dynamic steady state having a begin and end condition for its Creation. In the reality of the laws of physics one can expect only to analyse along the line of two extreme hypotheses. Either the mass points and /or the electric charge are static objects or these objects have internal dynamics. Consequently, one may come to the conclusion that our cosmos should be steady state having an initial, alpha, and an end condition, omega. No other combination between these two extreme hypotheses seems to be possible.

Obviously the approach for 'static matter' is currently accepted in present day theoretical physics based on general relativity theory and quantum mechanics with still electric charge as a static state. The dynamic physics having no static states for the electric charge and the determination of rest mass for matter as an internal dynamics, is treated in this article.

In short one finds the following paragraphs:

Par 1 For those who are not familiar with the discussion in *ref 4*, the paragraph is repeated.

Par 2 The end or omega condition of the dynamic steady state universes.

Par 3 The genuine deviations for the Monster symmetry

Par 4 The initial or alpha condition for the dynamic steady state universes.

Par5 The super massive WR /BH are to be possible under the weak gravity condition based on Lamb's shift of the hydrogen atom. This paragraph is finally complete with respect to the same one in *ref 4*.

Par 6 Overview: Consequences of the steady state dynamics of the universes. Such as entropy as the constant temperature  $4.2^\circ$  Kelvin , the qubit state of empty space.

*Par 1 Introduction and discussion, the flywheel universes*

In *ref 2*, for the derivation of the cosmic energy balance by dark matter in our cosmos an important final conclusion was not made, mainly for reasons of oversight by not understanding all implications. Namely the question can Lorentz' space observed by Hubble's red shift between galaxies, still be based on the simultaneous condition of events between these galaxies? In other words is time in our cosmos absolute? The answer is, if no mediating medium between atoms exists then empty space complies to Lorentz space as a final state of our cosmos because of the existence of the Big Bang as the onset for the universe. In case of a mediating medium for exchange between atoms especially attuned to gravity generation then by maintaining the onset of the Big Bang as initial condition, then the gravity generation should be weak never exceeding Lamb shift magnetic string conditions for baron cluster coherence for the state of dark matter rigid rotor in any macro mass. The utmost weak gravity generation is by the 21 cm magnetic strings, quanta of Lamb shift per atom, put in series forming the coherence cluster cells as the momentary state of the rigid rotor. While Lamb shifts put in parallel represent most likely degenerated coherent dark matter of two dark matter states in conjugation, most likely the magnetic coherence of extreme magnitude close to a black hole condition of a macro mass. See *ref 4*

The weak gravity condition for the Big Bang determines that Newton's Law of gravity is always valid and that our cosmos knows the creation of absolute time as consequence of a zero point in time. Returning to *ref 2*, the mediating dark matter energy balance shows the radial distribution of  $\frac{1}{4} c^2$  and  $\frac{3}{4} c^2$  rotation by dark matter distribution, blind energy, for the mediating medium suggesting the universe behaves as a flywheel. Then again, the idea of a flywheel universe by the mediating medium determines that Hubble's red shift between galaxies is not a 'Lorentz' space condition but a consequence of mediating dark matter expansion driving the galaxies in a time direction due to gravity attuned solely by one kind of barons, while the anti barons or anti protons and positrons as anti matter accelerate in an opposite time direction. Note, the pseudo vector theory also allows the conjugated condition of matter and anti matter, the electric charge swap, because there are four independent pseudo  $\tau$ - neutrinos for the protons, and four pseudo  $\mu$ -neutrinos, for the electrons while with the neutrons a mixture of both, the four independent e-pseudos neutrinos are for the mediating medium. See *ref 2 and ref 4*. So as a conclusion, Hubble's red shift is a consequence of the driving mediating medium by dark matter and not a consequence of extreme 4D time space contraction resulting in a Lorentz space history of empty space. In other words "Lorentz space" is absolute in time in the distribution of baron matter but steady state, dark matter cannot disappear from the Hubble's event horizon, the time history of the universe is absolute and eternal and perhaps changing ever so slowly. An extreme far away galaxy has the same present-day evolutions of stars and planets as the ones in our own Milky-way.

The concept of absolute time already appeared in *ref 1* for the derivation with Planck's parameters,  $\lambda_{pl}$  and  $m_{pl}$  as consequence that both values not agreed to the cycle time of Monster group symmetry for dark matter solely. Planck's parameters are photon states, not adhering to any dark matter events, due to quantum mechanics interactions between atoms or subatomic particles and a consequence of the above mentioned extreme pseudo vector neutrino interactions. Therefore these Planck deviations determine the distinction between the exact cycle time by the Monster symmetry, of 13.7 billion light years or 13.8 billion as observed and the infinite time due to the deviation of Planck's length. So as the outcome of the derivation in *ref 1*: if time is absolute then the number of Monster cycles will be

forever unknown to us which seems to confirm the flywheel state as the absolute steady rotation state of our cosmos.

Indirectly *ref 1* and *ref 2* carry already the inkling of information for the inflationary period of the universe. In *ref 2* the substitution angle between radial and rotation energy of the dark matter medium is derived as close to  $60^\circ$  or  $58^\circ$  giving  $\cos 60^\circ = \frac{1}{2} \sqrt{3}$  while relativistic mass parameter  $m/m_0 = 2$  for  $\beta = \frac{1}{2} \sqrt{3}$  is pointing to the neutron state of decomposition of about two with respect to the hydrogen atom. The neutron is 1838.684 and proton is 1836.153 times the electron mass. The mediating medium of ultra fast and light pseudo neutrinos never exceeds  $m/m_0 = \sqrt{4/3} = 1.157400$  for  $\beta = \frac{1}{2}$  at maximum effective momentum ( $\frac{1}{2}c_{\text{eff}}$ ). It determines the angle of  $60^\circ$  by the neutron decomposition over the entire period of inflation or dark matter generation shown up in the final state of the steady of rotation given by the cosmic energy balance of our cosmos. Further the weak gravity condition confirms the article of M.A. Thomas for conformal gravities as the initial state for the universe better known as the inflationary period. *Ref Thomas. See ref 5 for the explanation of the substitution angle.*

### *Par 2 The omega condition or end condition of the steady state universes*

The end condition of the universes is the same and determined by the line density given by the quotient of Planck's mass over Planck length:  $m_{\text{pl}}/\lambda_{\text{pl}} = c^2/G = 1.346685 \cdot 10^{27} \text{ kg/m}$   
The quotient determines also the overall mass of the universes of  $M_{\text{tot}} = L_{\text{coh}}^2$  with  $L_{\text{coh}}$  the coherence length of the universes.

Namely:  $M_{\text{tot}}/L_{\text{coh}} = m_{\text{pl}}/\lambda_{\text{pl}} \quad M_{\text{tot}} = L_{\text{coh}}^2 = (1.346685 \cdot 10^{27})^2 = 1.813560 \cdot 10^{54} \text{ kg}$

Simultaneously  $L_{\text{coh}}$  of the universes is composed of an imaginary Jupiter mass with an event horizon of 1 metre giving  $M_{\text{tot}}$  and consisting of the same number for the  $1.35 \cdot 10^{27}$  J- masses. Divide the J-mass by the neurons rest mass. The J-mass =  $L_{\text{coh}} = 1.346685 \cdot 10^{27} \text{ kg}$ .

The J-mass in kg has the same number as  $L_{\text{coh}}$  in metre given as work for reasons that the neurons are all accelerated in one direction, the direction of time with respect to one kind of barons, the neutron. So  $1.346685 \cdot 10^{27} / (1838.684 m_e) = 8.0405 \cdot 10^{53}$  neutrons  $m_e = 9.109 \cdot 10^{-31} \text{ kg}$ .

Compare to the Monster symmetry number of  $M_0 = 8.0801735 \cdot 10^{53}$  giving deviation of

$1.004922 = 1.002458^2$ . The deviation should be the genuine monster deviation of 1.002453, see the following paragraph, par 3.

Definition, there four kinds of barons neutrons normal conjugated and normal and conjugated anti neutrons for three perpendicular crossing paired time axes. One pair has normal matter to anti matter and the crossed time pair has conjugated matter to conjugated anti matter. A paired time axis in opposition comprises two universes of opposing states of matter.

Next the overall mass is related to the Monster symmetry number  $M_0$  as a ratio with  $M_0$  'seen' as mass:

$$M_{\text{tot}}/M_0 = 1.81356 \cdot 10^{54} / 8.080174 \cdot 10^{53} = 2.244456$$

Meaning  $M_0$  as a group symmetry number and has to be a number for the classes of symmetry, being one time a mass and otherwise belonging to a length as  $L_{\text{coh}}$ .

The other end condition is Hubble's distance  $R_H$  of 13.7 billion light years. This distance also the determines the travelling of light, electromagnetic waves to 'cross' our cosmos.

$$1 \text{ yr} = 9.45859 \cdot 10^{15} \text{ m} \quad R_H = 1.295826 \cdot 10^{26} \text{ m} \quad \text{with} \quad L_{\text{coh}}/R_H = 10.39248$$

Both  $L_{\text{coh}}$  and  $R_H$  are event scaling's according to Einstein's BH rule:  $\lambda c^2 = G M$

The factor 10.39271 or 10.38248 suggests that at least ten paired universes are involved for the group symmetry puzzle with 10 as group symmetry integer. So the mass of our universe is:

$M_{\text{univ}} = M_{\text{tot}} / 10 = 1.813560 \cdot 10^{53} / 1.039271 = 1.74503 \cdot 10^{53} \text{ kg}$ . 1.039271 instead of 1.039248 due to previous calculation. More exact seems:

$$\sqrt{48} = 6.928203 \quad \text{and} \quad 1.5 \times 6.928203 = 10.39230 = (\sqrt{1728})/4.$$

In case of taking the age of universe as the end condition, the 13.7 billion years are related to the begin or alpha condition for the universes:

$$(24^3 \times \sqrt{2} \times 6)^2 = (1.17300 \times 10^5)^2 = 1.375941 \times 10^{10} / 1.002453^2 = 1.3692 \times 10^{10} \text{ yrs or:}$$

And as observed  $1.375941 \times 10^{10} \times 1.002453^2 = 1.383 \times 10^{10} \text{ yrs}$

One year converted into hours is:  $24 \times 365.25 = 8766 \text{ hrs}$ . It represents the orbital location of Earth based on the velocity of light of  $c$ , while  $360 \times 24 = 8640 = 5 \times 1728$  with 1728 the ratio of the quark complex for barons, proton or neutron to the rest mass of the electron. The electron is the unit rest mass for any particle or sub particle state. Treated in the following paragraph is the deviation of  $8766 / 8640 = 1.014583$  as the genuine metric deviation.

### *Par 3 Group symmetric barriers scaled as genuine deviations normalised to about 4%*

The symmetry exercises with the Monster symmetry number reveal the genuine ratios, these are: The monster deviation itself, the metric deviation and the pyramid deviation between equilateral and cubic pyramid. To begin the derivation with the last:

#### *The pyramid deviation*

$$5 / 1.020621 = 4.898978 \quad \text{with the reciprocal} \quad 0.241242$$

Of which the height of the equilateral pyramid is  $4 \times 0.24122 = 0.8164968$

while  $2 \times 0.241242 = 0.482484$  is the height of the cubic pyramid.

The 4% deviation is  $1.020621^2 = 1.041667$  then  $1.020621^3 = 1.063147$

$$1.063147 \times 1728 = 1837.113 \text{ to be compared to the H atom rest mass } 1837.153 m_e$$

#### *The metric deviation is easiest to define.*

Already shown above:

8766 the metric transformation of years to hours and vice versa based on the orbital Earth.

8640 the dark matter mass to electron ratio of  $5 \times 1728$

The deviation 1.014583 then with 4%  $1.014583^3 = 1.044391$   $1.014583^4 = 1.059620$

The metric deviation suggests to be a consequence of the separation of the electromagnetic laws of Maxwell based of Einstein's relativity concept and dark matter energy conservation based on group symmetric considerations controlled by the Monster symmetry integer number. Both the 8766 and 8640 can be 'seen' as line transformations due to acceleration in one time direction.

The metric deviation has to be codetermined by Planck length of  $\lambda_{pl}$  as the fundamental smallest wavelength between Monster number considered as perpetual cycling and enclosed in itself. Planck's length of about  $10^{-35} \text{ m}$  as the most contracted photon state prevents closure for the 4D electromagnetic empty space resulting in the infinite progress of quantum time. See *ref 1* for the derivation and discussion.

#### *The Monster deviation*

In *ref 1* the relation between Planck length and electron Compton length is:

$$\lambda_{pl} = 1.002490 \times 2\sqrt{2} \lambda_e^3 \quad \text{of which } \sqrt{2} \text{ constant for } \lambda_e \text{ should show three times the volume of two electron cubes moving in opposite directions with an end velocity of } \frac{1}{2}\sqrt{2} c \text{ for a Cartesian coordinate system.}$$

The 4<sup>th</sup> root of the Monster is:  $(2.998162 \times 10^{13})^4 = 8.080174 \times 10^{53}$

The deviation from  $3 \times 10^{13}$  as integer is: 1.000612 making  $1.000612^4 = 1.002453$

Which should be the genuine deviation between Planck and electron and not 1.002490 or 1.002383

So the 4% deviation becomes  $1.002453^6 = 1.014812$ . Take  $1.014812^3 = 1.045099$

While  $1.014812^4 = 1.060579$  Giving  $1.060579 \times 1728 = 1832.681 m_e$ . Compared to the generalized state of the H atom for Helium is  $1825.063 m_e$ . May be 1833 is H-state of Tritium.

*(Haven't checked it)*

Compare the two genuine deviations Metric to Monster:  $1.014812 / 1.014583 = 1.000222$

The value  $1.014812^3 = 1.045099$  suggests the 4.5% existence of baryonic matter with a dark matter intermediate medium of 95.5 % in our cosmos.

In conclusion, how the pyramid symmetry mathematically compares to the monster symmetry is still not resolved. The alpha condition for the onset of the twelve universes is perturbed by the metric and the Monster deviation of a factor of 1.000222. The line transformation of hours to years and vice versa confuses the symmetry scaling of the super massive black holes at the onset for the alpha condition. It seems ridiculous to relate the dark matter states of mass energy to be depending on the metric of Earth orbit parameters. So in the following the choice was made for the transformation of  $5 \times 1728 = 8640$

*Error assessment to  $D_{Mo}$ : The above scaling is more direct but still more detailed analyses are needed.*

First calculation deriving the numeric equality derived from  $\sqrt{3}$  and  $\sqrt{2}$ .

$$\begin{aligned} (\sqrt{3})^{1/12} &= 1.046839 & \text{while } (1.047199)^{12} &= 1.739204 \\ 1.739204 / \sqrt{3} &= 1.004130 & (1.004130)^{1/10} &= 1.000412 \\ (1.050818)^7 &= 1.414798 & 1.414798 / \sqrt{2} &= 1.000413 \end{aligned}$$

Second calculation, symmetry breaking of the factor two:  $(144 / 137.036 = 1.050818)$

$$\begin{aligned} 2^{1/14} &= 1.050756 & 2^{1/15} &= 1.047294 \\ 1.050756 / 1.047294 &= 1.003306 & (1.003306)^{3/4} &= 1.002478 \\ (1.047207)^{15} &= 1.997505 & 2.0 / 1.997505 &= 1.001248 \\ (1.001248)^2 &= 1.002498 \end{aligned}$$

Numerically this may be correct but the existence of ultra fast and light dark matter medium suggests to act as some kind of filter with preference to the Monster number a asymmetry object.

*Par 4 The alpha condition, the initial condition of the steady state universes by super massive white radiators*

The well known concept of the inflationary period for the early universe is replaced by the initial condition of the universes. The initial condition constitutes the time symmetry separation between the universes. It involves the breaking down the Monster symmetry number. This condition can consist of two parts:

- The cubic time interval for the entire mass energy dump given in years.
- The formation time of the biggest super massive white radiator having the option to expel or convert a great part of its mass energy into the super light and fast mediating medium of dark matter. Then given into hours.

Both are controlled in the sequential cycle of six between the six time axes for coherent electromagnetic energy contained in a phase space of time. These super massive white radiators, later the remnants as black holes for the galaxies, are subjected to dice throwing of equal changes which should be the only valid available option for group symmetry considerations.

The overall number needed for the galaxies is given by the line transformation from hours to years:

$$\text{One year is } 24 \times 365.25 = 8677 \text{ hrs and vice versa. Here we use } 5 \times 1728 = 8640.$$

This overall number as the cube of the 3<sup>rd</sup> power of opposing states representing momentum. With the 6<sup>th</sup> power as mass energy times the transformation converted into mass energy of the ultra fast mediating medium. Conform the square root of  $L_{\text{coh}} = 3.669720 \cdot 10^{13}$  deviates somewhat:

$$(27.71281)^6 \times 8640 = 3.913778 \cdot 10^{12} \quad \text{with} \quad 24 \times \sqrt{4/3} = 27.71281 \quad (4.1)$$

The number of galaxies:  $N_{\text{gal}} = 3.913778 \cdot 10^{12} / 27.71281 = 1.412266 \cdot 10^{11}$

Further, see for the 2<sup>nd</sup> meaning of relation 4.1 in paragraph 4.2.

The biggest white radiator mass will be  $M_{40}$  by taking  $M_{\text{univ}} = 1.74503 \cdot 10^{53}$  kg divided by rel 4.1:

$$M_{40} = 4.458686 \cdot 10^{40} \text{ kg}$$

The range is the square root of  $1.412266 \cdot 10^{11} = 3.75 \cdot 10^5$  making the smallest WR:

$$M_{35} = M_{40} / 3.758012 \cdot 10^5 = 1.18645 \cdot 10^{35} \text{ kg}$$

The range number  $3.758012 \cdot 10^5$  represents also the limit as smallest WR (BH), namely:

$$217.4775 \times 1728 = 3.758012 \cdot 10^5$$

In which  $220.6808 / 217.4775 = 1.014728$  Compare to  $D_{Mo} = 1.014812$

The Monster deviation, with the substitution inversion for the H atom:

$$1 / 1837.153 + 1 / 250.8082 = 1 / 220.6808 \quad \text{mediating mass of } 250.8082 m_e$$

The conjugated swap of the electric charge exchange between proton and electron. It is the momentary maximum quantum resonance mode in which the proton and electron are in conjugation without changing of their dark matter triplet states as for pseudo  $\tau$ -neutrino (proton) and as for pseudo  $\mu$ -neutrino (electron). The formula for the mediating mass:  $m_m^2 = m_{\text{prot}} (137.036/4)$ . Due to reciprocal fine structure constant and four due to Fermi spin of both the electron and the generalized proton.

A check on the choice of  $D_{M_0}$  with respect to the metric deviation of 1.014583 comes from repeating the calculation of rel 4.1 for the metric transformation of 8766 giving  $3.85752 \cdot 10^{12}$  by dividing of 1.014583. The metric deviation works in reverse making 217.4775 smaller and closer to  $216 = 1.5 \times 144$ . With this remark it shows that the correct choice of for the dark matter transformation of  $8640 = 10 \times \frac{1}{2} 1728$ .

*Par 4.1 The cube time interval.* Adapted from hours to years. See rel 4.1 above ( $27.7128^6 \times 8460$ )  
 $27.71281^2 = 767.9998 = 768$  years giving a cube of time space of  $768^3$  which also gives the size light years of the 3D space contracted dark matter of the overall mass of  $M_{\text{univ}}$  for our own universe.

$$M_{\text{tot}} / (10 M_{\text{univ}}) = 1.039271 \quad \text{Now without line transformation in hours.}$$

The following calculation shows the constant 1.039271 or 1.039230

$$768 = \sqrt{2} \times 543.0578 \text{ hrs}$$

Divide 543.0578 by 36 = 15.08494 x 2 = 30.16988 hrs

Event of  $M_{40}$  with  $G/c^2 = 4.458686 \cdot 10^{40} \times 7.42733 \cdot 10^{-27} = 3.311613 \cdot 10^{13} \text{ m}$

Convert into hours:  $3600 \times 2.9972458 \cdot 10^8 = 1.079008 \cdot 10^{12}$  gives 30.69126 hrs

Compare to  $30.69126 / 30.16988 = 1.017281 / 1.014812 = 1.002433$

Making  $1.002433^7 = 1.017155 \quad D_{M_0} = 1.002453^6 = 1.014812$

Secondly take  $(30.16988 \times 8640)^2 = 6.794768 \cdot 10^{10} \text{ yrs}$

Line transformation to present-day situation of our cosmos.

Compare to  $N_{\text{BH}} : 1.412271 \cdot 10^{11} / 6.79768 \cdot 10^{10} = 2.07846 / 2 = 1.039234$

The group symmetric correction should be used:

$$\sqrt{48} = 6.928203 \quad 1.5 \times 6.928203 = 10.39230 = (\sqrt{1728}) / 4$$

The quadrate of six seem to be the consequence of the six paired opposing opposed time axes.

The number 36 is thought to involve perpendicular time axes only in geometric arrangement for a equilateral pyramid frame. Paired opposing BH/WR emitting simultaneously coherent opposing nullified electromagnetic fluxes to time released due to gravity for one kind of barons (H atoms) per universe. The cube block of 583 hrs projects the end velocity of  $\frac{1}{2}\sqrt{2} c$  in the opposing directions.

*Par4.2 The expansion coefficient due to the Monster symmetry number*

The uncertainty relation for particle momentum is:

$$m \lambda = h/c \quad \text{with} \quad h/c = 2.21072 \cdot 10^{-42} \text{ kg m /sec}$$

This condition is directly related to the Monster symmetry number:

$$M_{\text{BH}} \lambda_{\text{BH}} = M_0 \text{ with } M_0 = 8.080174 \cdot 10^{53} \text{ kg m}$$

The product of  $h/c$  times  $M_0$  :  $C_{\text{BH}} = 1.7360 \cdot 10^{12}$  determined by  $c$  or reciprocal of  $c$ . Apart from the dimension  $C_{\text{BH}}$  can be compared to with the line transformation of 8640:

$$27.7128^6 \times 8640 = 3.913778 \cdot 10^{12} \quad \text{being rel 4.1}$$

The ratio:  $3.913778 / 1.7360 (10^{12}) = 2.194313 / 2 = 1.097156$

$$(1.097156)^{2/3} = 1.063765. \quad \text{Close to the neutron ratio } 1838.684 / 1728 = 1.064053$$

The deviation is 1.000228 then confirming the omega condition for neutrons in par 2 which shows the correct conjecture of an steady state universe driven by dark matter subjected to group symmetric considerations and eternally controlled by the dynamics of pseudo vector cells (pseudo neutrinos) of dark matter.

To check the validity of  $C_{\text{BH}}$  take the light velocity  $c = 2.9972458 \cdot 10^8$  and multiply with the metric transformation of 8766 hrs giving  $2.627385 \cdot 10^{12} \text{ yrs}$ .

Ratio to  $1.7360 \cdot 10^{12} = 1.51347 / 1.5 = 1.008980 = 1.002237^4 \quad 1.002237 \times 1.000222 = 1.002460$

With 1.000222 the genuine quotient between  $D_{M_0}$  and the metric one.

*Par 5 Determination of the interior of a massive white radiator due to the Lamb condition for weak gravity generation*

The range of massive white radiators from which the galaxies originate. An initial white radiator of  $M_{40}$  should be thought of as not expelling any matter. It seems all matter converted from within is needed to maintain the integrity of the state of this black hole. For all smaller initial massive radiators the initial mass transforms also externally into matter to the surrounding 3D-space supposedly controlled by the  $C_{BH}$  constant of the mediating medium.

In *ref chap 7* the existence of the hollow black holes consisting of coherent (degenerated) condensed dark matter was derived. The coherent condensed state is the alternation of protons to conjugated protons with the corresponding electrons. The alternation of the electric charge is between proton as positive and electron as negative and in the conjugation state of the protons as negative and the electron as positive and not to be confused to the anti matter state such as anti proton and the positron having equivalent electric charges. The anti time universe consists of anti matter.

The absolute constant of the Lamb shift of  $5.1 \cdot 10^{-7}$  m or 0.5 micro metre is valid for gravity generation in general, so also for the hollow black hole. Further both states of the atoms conjugated or normal, are subjected to Sacharov's square root rule of dark matter induction by the mediating medium. One square root state is exact for the conjugated and the other square root state is exact for the normal atoms, protons /electrons. Both generate the alternation of the dark matter rigid rotor due to magnetic field synchronisation determined by the product rule of exchange for the coherence condition. In the black hole state the atomic and Lamb state are matched exactly because of optimal coherent synchronisation or better every atom is used in the alternation, no 'waste' atoms as redundancy, the exact group symmetry condition for dark matter.

For the biggest super massive black hole of  $M_{40}$  is valid that the hollow geometry is contained in the a surface probably slightly greater than the event diameter. All atomic matter resides in a surface layer. For the smaller massive black holes the atomic layers are thicker and compressed against the event diameter. Always greater than the event due to the limit of  $\frac{1}{2} c_{eff}$  of the mediating medium. To guarantee the integrity of these surfaces both atomic layers are parted. One for if a state subjected to the 21 cm condition of magnetic strings while the other state adheres to the  $5.1 \cdot 10^{-7}$  m Lamb shift as the parallel magnetic synchronisation. For gravity generation then the magnetic synchronisation of parallel 0.51 micron is directed perpendicular to the surface. For the 21 cm magnetisation of the atomic layers are along the surface, tangentially oriented.

The Lamb state in the interior of the black hole can be expressed in a volume taking the reciprocal of the cubic power of Lamb and similarly the reciprocal of the surface require the square power of Lamb of  $0.21^2 \text{ m}^2$ . The product of both is the criterion to determine the range for the initial states of the white radiators.

$$1/(5.1 \cdot 10^{-7})^3 = 7.5386 \cdot 10^{18} \text{ cells/m}^3 \quad 1/0.21^2 = 22.676 \text{ cells/m}^2$$

Giving:  $1.7094 \cdot 10^{20}$  cells, the criterion somewhat overestimating the atomic integrity of the coherent condensed atomic layers for maximum gravity generation. Then this criterion can be compared with square root of the number of atoms calculated from the macro mass of the black hole.

Always the event horizon  $\lambda$  to Einstein's law of BH:  $\lambda c^2 = G M$

$$G/c^2 = 7.427330 \cdot 10^{-28} \quad G = 6.672329 \cdot 10^{-11} \text{ m}^3/\text{kg sec}^2 \quad c = 2.9972459 \cdot 10^8 \text{ m/sec}$$

In par 4 the range for the galaxies and the number of these were derived. The two extremes for the range by scaling to the event of  $\lambda$  are:

$$\begin{array}{llll} M_{40} = 4.4587 \cdot 10^{40} \text{ kg} & \text{and} & \lambda = 3.3116 \cdot 10^{13} \text{ m} & \lambda^2 = 1.0967 \cdot 10^{27} \text{ m}^2 & \text{surface} \\ M_{35} = 1.1865 \cdot 10^{35} \text{ kg} & & \lambda = 8.8122 \cdot 10^8 \text{ m} & \lambda^3 = 6.843 \cdot 10^{26} \text{ m}^3 & \text{volume} \end{array}$$

With the H atom:  $1837.153 m_e = 1837.153 \times 9.109 \cdot 10^{-31} = 1.6735 \cdot 10^{-27} \text{ kg}$

$$\begin{array}{llll} M_{40}: \text{Surface} & \lambda^2 = 1.1.0967 \cdot 10^{27} \text{ m}^2 & \text{surface density} & 4.0656 \cdot 10^{13} \text{ kg/m}^2 \\ & \text{or divided by H atom mass:} & 2.4294 \cdot 10^{40} \text{ atoms /m}^2 & \sqrt{=} 1.5587 \cdot 10^{20} \text{ atm/m}^2 \end{array}$$

$M_{33}$ : volume  $\lambda^3 = 6.843 \cdot 10^{26} \text{ m}^3$  volume density  $1.7338 \cdot 10^8 \text{ kg/m}^3$   
 or in H atoms:  $1.0360 \cdot 10^{35} \text{ atm/m}^3$   $\sqrt{=} 3.219 \cdot 10^{17} \text{ atm/m}^3$

The square root due to Sacharov's law.

Compare to the criterion of  $1.7094 \cdot 10^{20}$ .

$M_{40}$ :  $1.5587 / 1.7094 = 1 / 1.0967$  about 10% less atoms which can be remedied by taking the mediating mass of  $250.8082 m_e$  of the H atom. Ratio:  $\sqrt{7.235} = 2.7$  enhancement for the atomic state with respect to Lamb's cells. So, the maximum limit with hardly any expulsions of atoms from the surface.

Secondly, show that the smallest BH of  $M_{35}$  gives the other limit.

$M_{35}$ :  $7.538 \cdot 10^{18} / 3.219 \cdot 10^{17} = 23.42$  surplus of cells than needed

However proton electron conjugation, the flip over of the H atom state with mediating mass of  $220.6808 m_e$  gives  $\sqrt{8.325} = 2.8853 \times (3.219 \cdot 10^{17}) = 9.287 \cdot 10^{17}$  with ratio to the cell number

ratio  $75.38 / 9.287 = 8.17$  square root of 8.325 due to Sacharov's law

The ratio of neutron /proton = 2.531 or  $8.17 / 2.531^2 = 1.275$   $2.531 / 2 = 1.266$

With relativity mass  $m/m_0 = 2 = 1/\sqrt{(1 - \beta^2)}$  and  $\beta = \frac{1}{2}\sqrt{3} c$

The lower limit allows the expelled neutrons till the equilibrium is reached. The flip over of the H atom is from mediating masses of normal of  $250.8082$  to  $220.6808 m_e$  as conjugation state in compressed alternation for gravity generation.

The square root as the range and the square power of the number of WR gives the smallest black hole of  $M_{35}$  having the range between  $N=1$  and  $N(\text{max}) = 3.73 \cdot 10^5$  to  $M_{40}$ . The quanta are  $\Delta M = 3.76 \cdot 10^5 \text{ kg}$ . The quadrate or root follows the rule of  $M_{\text{tot}} = L_{\text{coh}}^2$  also based on Sacharov's rule for dark matter induction. Dice throwing of equal changes is between the numbers from  $M_{35}$  to  $M_{40}$  in steps of 3.76 hundred thousand. With a Poisson statistic distribution of the deviation  $\sqrt{3.76 \cdot 10^5} = 613 \text{ kg}$  and mean  $M_{37} = 7.273 \cdot 10^{37} \text{ kg}$ .

Note, the gravity at the event surface of  $M_{40}$  is about  $6000 \text{ kg/sec}^2$ , far less than gravity for  $M_{35}$ . The mass density within  $M_{40}$  is about the air density of Earth:  $4.46 \cdot 10^{40} / (3.312 \cdot 10^{13})^3 = 1.23 \text{ kg/m}^3$

*In conclusion:* The onset of for the smallest super massive black hole of  $M_{35}$  is the mass energy of  $M_{40}$ . So the difference between  $(M_{40} - M_{35})$  is the energy in ablation from the event surface of  $M_{35}$  which is the maximum to be released and about 3.76 hundred thousand times  $M_{35}$ , with  $M_{35}$  of sixty thousand times the solar mass of  $2 \cdot 10^{30} \text{ kg}$ . The mean  $M_{37}$  with deviation 613 kg releases only six hundred thirteen times less than  $M_{35}$  against  $M_{40}$  hardly none.

## *Par 6 Overview and consequences of the steady state dynamics of the universes*

### *Par 6.1 Steady state discussions and flywheel universes*

As a reminder, in *ref 1* it was shown that Planck's length as the smallest photon state of empty space gives a tiny deviation, its wavelength, from the exact cyclic time based on the fundamental group symmetric considerations resulting in the hypothesis that time infinity could be real and be represented by entropy defined as the electromagnetic state for empty space. The number of Monster cycles may not be known but during every cycle the cosmic state could change somewhat or slide asymptotically to an equilibrium for entropy. Assumed is that dark matter governed by the group symmetric laws, is separated from the Maxell's laws for electro magnetism. The supposition of one kind of barons per universe based on time symmetry, drives coherent electromagnetic flux to time, gravity which has to be nullified by opposing coherent flux of the anti matter universe. So the time symmetry in two opposing directions is a necessary condition.

A steady state universe consisting of solely black holes, super massive or smaller has an entropy of absolute zero temperature. In relation to cyclic time there cannot be any discrepancy to infinite time. Nothing changes in the steady state of these universes. Due to the assumption that the smaller black holes are an reality, although the super massive ones are supposed to be eternal, one can reason that the smaller ones, once generated never can be regenerated into the normal state of matter, maintaining

the entropy asymptotically approaching to zero as the final state for the universes over the long run of eons.

However the smaller black holes driven by intelligent entities, have the option to decompose to the normal state which seems to be reversible under the weak gravity condition (the anti matter state for anti matter universe). It is due to the infinite time that these smaller black holes not necessarily belong to the cyclic time. These entities have the possibility to be carried over to the next Monster time cycle especially if these are generated at the end of a Monster cycle. In other words the dynamic steady state of the universes are supposed to have an equilibrium of entropy, slightly above the zero state and as observed in the order of 4.2° Kelvin. This in contrast to the cosmic back ground radiation due to the inflationary period for the Einsteinian definition of empty space without the existence of a ultra light and fast mediating medium.

Further note that the possible observed accelerated expansion of our cosmos can be dedicated to the centripetal force of the mediating medium due to the rotation of the medium discovered in the early days of observation as dark energy. The rotation of the dark matter mediating medium suggests the universes to be 'seen' as flywheels. Within a universe the rotation could or should have a zero energy balance but the centripetal force should show up as red shift.

#### *Par 6.2 Qubit state of 'empty' 3D spatial space*

The reciprocal of the electron length or Compton length is a qubit string per metre.

$$\lambda_e = 2.426 \cdot 10^{-12} \text{ m} \quad \text{reciprocal:} \quad 4.12201 \cdot 10^{11} \text{ per m}$$

This number corresponds closely to the number of galaxies (BH) in our cosmos as given above

$$N_{\text{BH}} = 4.12266 \cdot 10^{11} \quad \text{Take} \quad 3 / \{1.002453 \times \frac{1}{2} (144 / 137.036)\} = 2.919485$$

Multiply by  $N_{\text{BH}}$  giving  $4.123089 \cdot 10^{11}$  with fine structure constant  $1 / 137.036$

Check for binary string of  $2^{40} = 1024^4 = 1.0995511 \cdot 10^{12} = 2.666718 \times 4.123089 \cdot 10^{11}$

So confirmation due to the small deviation of  $8/3 = 1.000019$

See for  $2^{40}$  as the diversification by the electron of intelligent life *ref 8*.

#### *The dual string states or the binary sequential strings*

The initial sequential time string in coherence of  $6 \times 24$  hrs as the derived state for  $M_{40}$  passing through six opposing times axes, determines the sequential time strings for all kind of inertia states of the particles. The particle sequential time string consists of pseudo vector cells paired by two, the normal one and the conjugated one having equal spin vector components (not defined as Fermi spin) but with opposite acceleration components. So two paired strings in alternation are always present, normal and conjugated together with normal and conjugated for anti matter or anti spin, spin clock wise and anti spin anti clock wise. While the mediating medium having overall the two paired states, seems to nullify in spin and acceleration components anywhere in empty space but not close to the particles of one kind, electron and proton, with the medium in the four qualities. The uncertainty wave length in the medium is hundred thousand times that of the electron and it is indestructible. Close to the H atom, even in ionized state, one kind of the dual string is in exchange to electron and the proton. By excitation in case of the magnetic state for the Hartree potential, the anti string is involved giving rise to the momentary Lamb shift as the maximum separation between spin and anti spin string for the dual state of the medium. The qubit definition for the ultra fast and light mediating medium compromises the dual states of paired pseudo vector cells for the e-pseudo neutrinos. In zero state paired pseudo neutrinos or paired anti pseudo neutrinos have 1.34 eV rest mass energy normalized to c velocity and twice  $\frac{1}{2} c_{\text{eff}}$  as maximum momentum.

The Fermi state of all kind of particles atomic or sub atomic, is the consequence of  $\frac{1}{2} c_{\text{eff}}$  and the duality of the momentary impulse derivation between both opposing strings.

#### *Par 6.3 Electric charge and quantum magnetic flux dynamics*

The electric charge is generated as dynamic internal exchange of the pseudo vector cells between the two conjugated poles of charge for the state of a binary string. The conjugated poles are due to the opposite acceleration components and the summation of spin rotations. The time interval between

poles is absolute symmetric in opposite time direction due to the acceleration opposing components. The onset of the opposing directions is the absolute point of zero.

The other electromagnetic state is controlled by the magnetic quantum flux  $\phi = h/2e$ . With  $e$  the unit charge and  $h$  the uncertainty constant of Heisenberg. The other state for the conjugated charge generates a doughnut shape or toroidal geometry of enclosed magnetic flux. In that manner it is supposed to be a continuous alternation between electric charge and torus quantum flux resulting in binary sequence for the dark matter cells by which only the ultra light dark medium passes through the inner part of the torus.

*The weak and strong interaction force for the interior dark matter cells*

The sequential time string or binary state is a consequence of axial symmetry between the pseudo cells of opposing or conjugated acceleration and the same spin. The acceleration stretches the medium to  $\frac{1}{2}\sqrt{2}c$  end velocity giving a phase velocity of  $\sqrt{2}c$  while the vector components of as well the normal as the conjugated dark matter cells are organized in triplets as pole points for the quark state in the symmetry plane at the zero of the string.

The electron consists of triplets of solely one kind of pseudo  $\mu$ -neutrino cells. The proton consists of solely pseudo  $\tau$ -neutrino cells while the neutron is a combination of both. The axial strong force nullifies between the conjugated  $\tau$ -cells giving the conserved quark complex of  $12^3 = 1728 m_e$ . The weak force is nullified by the electron of triplets of the  $\mu$ -cells and the conjugated image given by the pseudo  $e$ -neutrino cells of the mediating medium.

Always the sub atomic states are combinations of the independent  $\tau$ -pseudo cells and  $\mu$ -pseudo cells in triplets. Of course above is valid for the four qualities of pseudo cells. In the subatomic state the  $\mu$ -pseudos combine a triplet with a anti- $\mu$  pseudo to give opposing binary string states. In general the internal triplet as the one anti out of two  $\mu$ -triplet (or vice versa) gives reduced rest mass with respect to the integer symmetry value of the group string. The neutron is an exception because all the  $\mu$ -triplets are of the same nature as the  $\tau$ - cell group, adding in rest mass.

It are the electric charge states in these binary simultaneous opposing states that generate the coherence of the H atoms in the mediating medium. Most likely the neutron cannot generate gravity in compliance to the weak gravity condition. It are the magnetic string by the atoms in sequence that give the 21 cm condition for alternation by complex frequency combinations based on the square root of the event wavelength together with the square root for the macro mass that accelerates the macro mass to time. Sacharov's induction law for the mediating dark matter medium. *Ref 6*

*The end cap symmetries or better asymmetries.*

The end cap asymmetry is a combination for the same base plane of the triplet for the cubic and equilateral pyramid symmetry. The cubic symmetry is always attached to the pseudo  $e$ -neutrino cells. So for the proton end cap  $\tau$ - pseudo to  $e$ -pseudo and for the electron  $\mu$ - to  $e$ -pseudo but for the neutron a cascade of  $\tau$ - to  $\mu$ - to  $e$ - pseudos. Although the neutron has no external charge, a magnetic flux is generated in the interior due to passing through the inner torus ring, obviously a complicated time string. For the subatomic states the cascade is the similar end cap asymmetry. The height of the equilateral is twice that of the cubic pyramid. So height is  $\sqrt{3}$  then cubic  $\frac{1}{2}\sqrt{3}$  generates for the triplet plane a flip for rotation of  $3 \times \frac{1}{3}\sqrt{3} = \sqrt{3}$ , a  $90^\circ$  change in direction to the height. Also take into account the relativistic exchange  $m/m_0 = 2$  for  $\beta = \frac{1}{2}\sqrt{3}$  valid internally while the cubic state for  $m/m_0 = \sqrt{4/3}$  and  $\beta = \frac{1}{2}$  driving externally. Both the conjugated ends of the sequential time string for the real poles or imaginary poles due to magnetic quantum flux. The simultaneous vibration of conjugated displacements in time on either site of the plane nullifies the strong or weak force or combinations of both. Principally only the electromagnetic energy is needed to maintain the sequential time string.

The electron is integer 1 as odd for end cap asymmetry and an integer string of  $144 = 9 \times 16$  or  $12 \times 12$  while the proton triplets are  $16 \times 103 = 1728$  even and  $17 \times 103 = 1836$  as the  $17^{\text{th}}$  odd integer for end

cap. For the height appearances in nature of proton and electron, the conjugate states reasoned per universe, are not observable, these are the sole eternal states in the for the steady state universes.

*Par 6.4 Scaling examples of time sequence strings*

*The intrinsic parameters of the electron for the 21 cm wave length.*

Calculate the self inductance and the capacitance of the electron then  $\omega = 1/\sqrt{LC}$

Determine the capacity C and self induction L of the electron:

$$W_{st} = e^2 / (2\epsilon_0 r_e) = e^2 / 2\epsilon_0 (137.036 / \lambda_e) \quad C = 1 / (2\epsilon_0 r_e) = 3.194 \cdot 10^{24} \text{ Farad}$$

$$\frac{1}{2} C V^2 = W_{st} = 1.3700 \cdot 10^{-46} \text{ J} \quad V = 9.3 \cdot 10^{-36} \text{ volt} \quad \lambda_e = 2.426 \cdot 10^{-12} \text{ m}$$

L coefficient in Henry:

$$L = \mu_0 4\pi^2 \lambda_e^3 / 137.036^2 = \mu_0 \lambda_e^3 / 21.81^2 = 3.77310^{-44} \text{ Henry} \quad 137.036 / 2\pi = 21.81$$

$$\text{Then } LC = 1.2051 \cdot 10^{-19} \quad 1/\sqrt{LC} = 2.881 \cdot 10^9 = 2\pi f \quad \text{and} \quad f = 4.585 \cdot 10^8 \text{ Hz}$$

$$\text{With } c: \lambda = 3.0 \cdot 10^8 / 4.585 \cdot 10^8 = 0.654 > 0.211 \text{ m}$$

$$\text{If } L = \mu_0 \lambda_e^3 / 137.036^2 = 9.558 \cdot 10^{-46} \text{ H} \quad LC = 3.053 \cdot 10^{-21}$$

$$1/\sqrt{LC} = 1.810 \cdot 10^{10} \quad f = 2.881 \cdot 10^9 \text{ Hz} \quad \lambda = 0.1042 \text{ m}$$

Determined by a factor 2 for 0.211 m wavelength and a factor 4 in L of the induction coefficient. The factor 2 seems to be a consequence of the  $\frac{1}{2}c$  effective velocity. So hydrogen molecule wave length 21 cm is a feature between the electron and the dark matter medium.

*The electron reciprocal for fine structure constant 137.036 in relation to integer string of 144*

$$144 - 137.036 = 6.964 \quad \text{and} \quad 4(\sqrt{3} + 8.9492 \cdot 10^{-3}) = 6.964$$

with gap energy of  $8.9492 \cdot 10^{-3} m_e$ .

Substitution:  $1/144 + 1/2833.59 = 1/137.06$  take  $137.06 / 2\pi = 21.80995$

$$1/21.97912 + 1/21.80995 = 1/2833.599 \quad 21.97912 / 21.80995 = 1.007756 = 1.002579^3$$

Deviation  $1.002579 / 1.002453 = 1.000125$   $1.000125^3 = 1.000375$  (close enough)

$$144 / 21.97912 = 6.551672 / 6964 = 1.062934 \times 1728 = 1836.751 / 1836 = 1.000409$$

*The proton with  $\tau = 34.259$  triplet  $3\tau = 102.777$  and  $4\tau = 137.036 m_e$   $3 \times 36 = 108$*

Use gap energy  $8.9492 \cdot 10^{-3} m_e$   $108 - 102.777 = 5.223$

$$17 \times 108 = 1836 \quad 17 \times 8.9492 \cdot 10^{-3} = 0.517233 m_e \text{ reasonable close to observed value}$$

and better than 0.153 determining the energy of the dark matter medium to maintain the proton.

$$17/16 - \sqrt{9/8} = 1.839828 \cdot 10^{-3} \text{ (exact ratio) compare: } 8.9492 \cdot 10^{-3} / 1.839828 \cdot 10^{-3} = 4.86415$$

$$5/4.86415 = 1.027928 / 1.025094 = 1.002764 \text{ or } \cos 4^\circ.26 \text{ delayed due to inertia of medium.}$$

*Scaling to the  $\pi$  mesons and the muon because these behave symmetric.*

Details are: Geometric mean of 274.072 and 205.554 is 237.3533. Realize these are  $\tau$ -cells of 8 x 34.259 and 6 x 34.259 respectively. Add or subtract a  $\tau$ -cell to the mean.

$$\text{Giving: } 271.6123 \quad \text{and} \quad 203.0943 \quad \text{to } m_e.$$

Show that the charged meson  $\pi^{+/-}$  of 273.126 has an additional excited  $\tau^*$ -state (see Higgs):

$$35.6735 - 34.259 = 1.4135 / \sqrt{2} = 1.000202 \quad 271.6123 + 1.4135 = 273.026$$

The excited triplet of 1.000202 expressed in  $\mu$ -pseudos.

Show that the muon of 206.768 is derived from 203.0943

$$8/3 \times 1.517056 = 4.045506 \quad 203.0943 + 4.045506 = 207.398$$

$$\text{Subtract the } \mu\text{-neutrino at } c \text{ of } 0.3327 \text{ giving: } 206.8071$$

$$\text{For triplet guess of } \mu\text{-neutrino at } c. \text{ Difference } 206.8071 - 206.768 = 0.0391$$

$$206.768 - 205.554 = 1.214 m_e \quad \Delta = 0.214 / 8.949 \cdot 10^{-3} = 24 / 23.913 \text{ delayed by } \cos 4^\circ.36$$

Guessed integer due to inertia state of ultra light dark medium for 8  $\mu$ -triplets with one anti spin state due to end cap asymmetry.

Show that the neutral  $\pi^0$  of 264.115 is composed of 15 pseudo  $\mu$ -mesons:

$$271.6123 - 264.115 = 7.49730 \quad 1.517065 / 3 = 0.50571 \quad 15 \times 0.50571 = 7.5856$$

$$\text{Ratio } 1.011784 \text{ compare to } 1.011172 \text{ with deviation: } 1.00061$$

$$1.51065 / (1.5 \times 1.000202) = 1.011172 \quad \sqrt{1728} - \sqrt{1604.175} = 1.51065 \quad 137.036^{3/2} = 1604.175$$

An excited  $\tau^*$  inverts to a conjugated state seen as anti matter. Note the even number of

$16 \times 0.50571$  is apparently reserved for the  $\mu$ -lepton confirming absolute symmetry for 4 and 1.5 times  $137.036 = 205.554$ . or  $4.045506 / 4 = 1.011379$  but  $2 \times 0.50571 = 1.011420$   
 Note, above scaling is a manner to come to an understanding how sequential strings behave. These scaling calculation do not determine unique results.

*The  $\tau$ -lepton* Observed rest mass  $3456 + 21.189 = 3477.189 m_e$   $2 \times 1728 = 3456$   
 $21.189 / 4 = 5.29725$   $5.29725 / 5.223 = 1.012471$   $1.012471^4 = 1.050826$   
 $144 / 137.036 = 1.050818$  deviation 1.000007  
 $0.189 / 8.9492 \cdot 10^{-3} = 21.12$  Suggests  $\mu$ -string of 21 integers combined in 7 triplets with a paired anti  $\mu$ -spin state or vice versa.

*Massive bosons  $W^\pm$  and  $Z^0$  respectively*  $103.27 \cdot 1728$  and  $91.05 \times 1729$  to  $m_e$  (product sequence string)  
 Triplets with one anti spin  $\tau$  or vice versa.  $\tau$ -neutrino at c:  $30.33 m_e$   $3 \times 30.33 = 91.0$   
 Set up two quadrate string rest masses: and reminder  $250.8082 - 220.6808 = 30.1270$   
 $103.27^2 + 91.05^2 - 2 \times 103.27 \times 91.05 = 149.3284$   
 $103^2 + 91^2 - 2 \times 91 \times 103 = 144$  difference  $5.328$  dev.  $5.328 / 5.223 = 1.020180$   
 Compare to pyramid node of 1.020621. Both triplet states with one anti state.

*Higgs contraction*  $142.6940 \times 1728 = 4 \times 35.6735 \times 1728 m_e$   $126 GeV$   
 Four opposing  $\tau$ -pseudos in excited state of  $\tau^*$  :  
 $34.259 + \sqrt{2} = 35.6732$  with  $\frac{1}{2} \sqrt{2}c$  simultaneous opposing departure from zero time.  
 Substitution  $1 / 137.036 - 1 / 3456 = 1 / 142.6940$

#### References:

Ref 1: <https://vixra.org/abs/2302.0135> Provisional proof between Planck's parameters to the giant groups symmetries of Monster, Baby monster and Fischer 24. *Please overlook the two stupidities; one a cursor error in the first formula and  $2^{nd}$  the light velocity being factor thousand due to km to metres.*

Ref Thomas: <https://vixra.org/pdf/2109.0211v2.pdf> "Monster symmetry and scalar theory, conformal gravities" by M.A. Thomas

Ref 2: <https://vixra.org/abs/2304.0227> Derivation of the cosmic energy balance for an ultra light and fast pseudo vector medium for dark matter

Ref 3: <https://vixra.org/abs/2305.0078> Exercises on dark matter mediation for the solar parameters

Ref 4 : <https://vixra.org/abs/2308.0088> Genesis explained! reasoned scientifically due to monster symmetry. *Precursor article as an approach for the better improved Genesis understanding..*

Ref 5: Website: <https://gravitation-levitation-physics.org/> articles on quark complexes of dark matter for atoms and sub atomic states and articles on dynamic gravity generation by Lamb shift quanta up to degenerated coherent black hole conditions. Also ref chap 7:[chap 7](#)

#### For definitions and background.:

Ref 6: <https://vixra.org/abs/2305.0061/> Sakharov's induction law for the dark matter mediation medium

Ref 7: <https://vixra.org/abs/2305.67/> Coherent induction of Coulomb charge for magnetic flux strings by the ultra fast and light dark matter medium

Ref 8: <https://universal-creation.org/> Theory of life

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