

GENESIS EXPLAINED! REASONED SCIENTIFICALLY DUE TO MONSTER SYMMETRY

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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. These scaling exercises were self consistent and prove the weak gravity initial condition for the universes.

The alpha condition or the inflationary period of our cosmos for pseudo vector barons is confirmed by the scalar theory of conformal gravities by M.A. Thomas. The onset in opposing time symmetries confirms the Big Bang initial state of the group symmetry Monster number decomposing into 6.7 nano seconds, a compacted state for neutrons having an imaginary macro mass in the order of Jupiter with event horizon of one metre. The sequence of six days or 144 hrs arises from six time axes in an enclosed pyramid frame for coherent photon energy caused by gravity generation per universe maintaining these super massive black holes imbedded by Monster symmetry and ending the alpha condition in somewhat less than thousand years a long time ago.

The omega condition is treated step wise which involved three topics, the scaling for the best choice matched to the calculations in ref1 for the initial black hole condition, M_{40} of about ten times solar, then the internal condition of the hollow super massive state adapted to the generalized concept of gravity generation by the ultra fast and ultra light mediating medium and as last the determination of the range of super massive black holes. All this is a strong possibility that explains these super massive entities as remnants of the galaxies in the twelve congruent universes of which the matter distribution is due to the group symmetric properties of dark matter.

Par 1 Introduction and Discussion

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 exist 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 of 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 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 or at least approximated by a Laplace delta interval. 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 τ - neutrinos for the protons, and four pseudo μ -neutrinos,

for the electrons 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 baryonic 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, λ_{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° or 58° 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 ($\frac{1}{2}c_{eff}$)

It determines the substitution angle of about 60° 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*

In *ref 1*, Planck's line density is supposed to be an absolute constant giving :
 $M_{tot} = L_{coh}^2 = 1.81356 \cdot 10^{54}$ kg and $L_{coh} = 1.3546685 \cdot 10^{27}$ m with $m_{pl} / \lambda_{pl} = 1.3546685 \cdot 10^{27}$ kg per metre. The coherence length of the universes is composed of an imaginary Jupiter mass with an event horizon of 1 metre giving M_{tot} consisting of the number of $1.35 \cdot 10^{27}$ J- masses. Divide the J-mass by the neutrons rest mass:

$$1.346685 \cdot 10^{27} / (1838.684 m_e) = 8.0405 \cdot 10^{53} \text{ neutrons} \quad m_e = 9.109 \cdot 10^{-31} \text{ kg}$$

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

$1.004922 = 1.002458^2$. Then again this deviation is close to the Planck to electron deviation parameter between 1.002490 and 1.002398 in *ref 1*.

Shown is that the quadrate of the Monster number is expressed in neutrons as the group symmetry option to overall mass energy of the universes. It seems an contradiction that at present-day only about 4% of that baryonic matter, neutrons, is left over while all the rest seems to be converted into dark matter carrying also the rotational energy known as dark energy. So a different approach for finding an explanation is needed.

Take an imaginary super massive black hole of one metre event horizon and decompose the neutrons in $1.0 / 3 \cdot 10^8 = 3.3$ nano sec (times 2 due to $\frac{1}{2} c_{eff}$) then generating the Monster number and repeating this for all black holes again determined by the Monster giving 10^{18} sec which turns out obviously $L_{coh} = 1.346685 \cdot 10^{27}$ m divided by a light years of $9.45865 \cdot 10^{15}$ m gives $1.4238 \cdot 10^{11}$ years or 1.4238

hundred billion years. It seems to be an impossibility to generate the overall mass of $1.81356 \cdot 10^{54}$ kg in a much shorter time.

The above parameters are calculated from the fundamental constants for physics:

With $1 \text{ yr} = 3600 \times 24 \times 365.25 \times c = 9.45238 \cdot 10^{15} \text{ m}$ and $c = 2.9972458 \cdot 10^8 \text{ m/sec}$.

Line density of Planck's parameters:

$$m_{\text{pl}} / \lambda_{\text{pl}} = c^2 / G = 1.346378 \cdot 10^{27} \text{ kg/m} \quad \text{and} \quad G = 6.672329 \cdot 10^{-11} \text{ (m}^3 / \text{kg sec}^2)$$

Deviation to above $1.346685 / 1.346378 = 1.000228$ See error discussion further on

$$m_{\text{pl}}^2 = hc / G \quad \lambda_{\text{pl}}^2 = h G / c^3$$

With the uncertainty constant of h, or Heisenberg constant and G the universal constant of gravity.

The above shows that to decompose neutrons, it takes about ten times longer than the age of our cosmos being $13.7 \cdot 10^9$ yrs or 1.37 ten billion years and $1.4238 \cdot 10^{11} / 1.37 \cdot 10^{10} = 10.39271$. As discussed in *ref 1* the overall mass of $1.81356 \cdot 10^{54}$ kg determines the mass of our universe to be ten times less making due to group symmetry the ratio of 10.39271 has to be an integer of 10. Thus assessed the mass of our universe is ten times less to be $1.81356 \cdot 10^{53}$ kg disregarding the correction of 1.039271 to our mass of the universe. See par 4 for the 3rd power of the correction. As discussed the mass is less because the existence of ten congruent universes from the twelve of which two cannot be observed due to the prime integer 5, dark matter has to be subjected to group symmetric considerations. The prime 5 / 1.020621 as reciprocal divides half the height of equilateral pyramid by height of cubic pyramid. See also *the integer correction of prime 5 in par 4.3*.

Par 1.1 Super massive Black hole or massive white radiator

After considerable considerations it turns out one has to look for some time compression determined by scaling according to group symmetry. An educated guess is to begin with the square root of L_{coh} as an option for the event horizon of super massive black hole.

$$L_{\text{coh}} = 1.346685 \cdot 10^{27} \text{ m} \quad \text{then } \sqrt{\lambda} = 3.66972 \cdot 10^{13} \text{ m.}$$

Apply Einstein's black hole condition: $\lambda c^2 = G M$

With $G / c^2 = 7.427330 \cdot 10^{-28}$ as the reciprocal of L_{coh} then $M_{\text{BH}} = 4.94083 \cdot 10^{40} \text{ kg}$

Take $M_{53} = 1.813560 \cdot 10^{53} \text{ kg}$ for the group symmetry condition of integer ten.

The number of BH's are: $3.6769 \cdot 10^{12}$ as the initial state to set off in a sequence of the formations of super massive black holes subjected to group symmetry. The observed states of super massive black holes in galaxies could suggest that the super massive BH are remnants of the onset of the inflationary period perhaps explaining the observed range in random mass distribution for these BH's. Then the random distribution might be due to galaxy collisions for the smaller size of the universe. Although it is an possible explanation here we stick to strict group symmetric considerations. See par 4.

Calculate the crossing time for c of the event in the black hole.

$$3.669720 \cdot 10^{13} / 3600 c = 34.01 \text{ hrs}$$

Convert into years $34.01 / 24 \times 365.25 = 34.01 / 8766 = 3.87976 \cdot 10^{-3} \text{ yrs}$

Obviously after some consideration $N = 3.87976 \cdot 10^{-3} \times 3.6769 \cdot 10^{12} = 1.4266 \cdot 10^{10} \text{ BH's.}$

With a small error it should be equal to $1.4238 \cdot 10^{10}$ yrs representing one BH per year.

Having used Einstein's black hole condition for the contraction of electromagnetic energy, dark matter generated from the event horizon might not belong to the impossibilities. In other words a reversed process of energy to matter deposition into a three dimensional spatial space subjected to group symmetry could be the only option especially since electromagnetic energy is separated from dark matter. It defines the super massive black holes as 'white radiators' as the initial state to generate the baryonic matter deposition. In observation from our perspective such a white radiator behaves like a black hole also due to the necessity of an equilibrium between the expelled dark matter and the condition of coherence of degenerated state of dark matter internally maintaining the integrity of the white radiator. Depending on the coherent state, due to gravity generation, the range of the sizes of the white radiator is determined, see par 4 for the discussion and derivation.

Par 2 Discussion and derivation of the alpha condition for the universes, the time symmetric contraction

To consider time symmetry in the sense of the theory of group symmetry, one has to comply with the square root of $1.4238 \cdot 10^{10}$ yrs giving $1.19323 \cdot 10^5$ yrs. In the sense of physics one has to define that dark matter has acceleration components for the pseudo vector cells in opposing time directions. So time and anti time are inexorable belonging to group symmetry considerations. Then Helium redundancy in the early universe for the inflationary onset cannot exit as a consequence of time symmetry braking. Most likely the existence of conjugated matter and conjugated anti matter remedies this problem in atomic high energy exchanges, only relativistic $2 < m/m_0 < 10$ of rest mass exchange.

Execute the unimaginable non scientific leap by converting the contracted time of $1.19323 \cdot 10^5$ years into the same value but in hours. In decomposition this can be represented by the above proposed 3D cubic BH cell of the event of $34.01 = 24.05 \times \sqrt{2}$ hours.

$$24^3 \times \sqrt{2} \times 6 = 1.17300 \cdot 10^5 \text{ hrs with deviation } 1.19323 / 1.173 = 1.017241$$

The time volume of 24 hrs gives a cube in which two planes are accelerated in opposition to an end velocity of $\frac{1}{2}\sqrt{2}c$ due to momentum of $\frac{1}{2}c_{\text{eff}}$ while the other four planes are subjected in such a manner that axially the rotation, equally at both sites of the time separation, is the same but at the time zero point this rotation spin is split into two opposing rotations perpendicular or orthogonal to the both the opposing time axes, flywheel condition. It should be a group symmetry operation also determined by the action /reaction condition to dark matter. Any way the time separation state has to be the pairing condition for the super massive white radiators.

The double rotation for the six opposing time axes suggests a spin to precession ratio of a momentum dipole of $\frac{1}{2} c_{\text{eff}}$, the momentum due to acceleration to $\frac{1}{2}\sqrt{2} c$ velocity. Another consideration should be the equivalency condition that the six cubic BH cells for the dimension of 24 hours are generated in an enclosed time frame for coherent immaterial photon energy of opposing time axes contained in an equilateral pyramid frame. This enclosed time energy frame has overall zero energy or is absolute lossless representing a phase space of time. The equivalence to the idea of a double rotation is that the six time axes are sequenced in time to keep the time quantum exchange continuing between the separate massive BH cells.

The following is to convert the hour time sequence string of $1.19323 \cdot 10^5$ hrs into years taking one year for $24 \times 365.25 = 8766$ hours giving $1.19323 \cdot 10^5 / 8766 = 13.612$ yrs. Then multiply by the crossing condition between opposing conjugated and normal opposing time axes which is six squared or 36 years giving 490.0328 yrs which ought to be the entire overall matter to dispose for all of the twelve universes.

Check for the event of 34.01 hrs in years which is $34.01 / 8766 = 3.87976 \cdot 10^{-3}$ yrs. Division gives a ratio of $490.0328 / 3.87976 \cdot 10^{-3} = 1.26305 \cdot 10^5$ with deviation $1.26305 / 1.19323 = 1.058512$. The time sequence string may be 'seen' also as the number of galaxies in one time direction as discussed already. However this quotient is also independent from the conversion factor 8766 which makes the deviation of 1.058512 a group symmetric deviation. The found deviations are details and not further explained although these can be reasonable understood. What remarkable is that a four dimensional cube of the three spatial and one time dimension has a cube length also in time of the 4th root of $1.4238 \cdot 10^{10} = 345.432$ hrs, see above. The quotient of:

$490.0328 / 345.432 = 1.4186 = 1.00311 \times \sqrt{2}$ determining that the phase velocity of $\sqrt{2}c$ representing the two opposing end velocities of $\frac{1}{2}\sqrt{2} c$ due to acceleration.

Par 2.1 In conclusion, it conforms Genesis

It has been shown that the matter energy of the universes is disposed in around two times 490 years or a little less than thousand years due to the maximum momentum of $\frac{1}{2} c_{\text{eff}}$ carried by the intermediate medium of ultra fast and ultra light pseudo vector cells. The onset for the universes is the set of the twenty four hour super massive black holes having a cycle time of six times of twenty hours to

complete and next begin a following cycle explaining Genesis for the Creation of the world, the congruent universes. The seventh hour of rest can be associated as the formation of 3D space by mediation medium expanding by $m/m_0 = \sqrt{4/3}$ from the surface of the massive black hole because $\{6 \times (\sqrt{4/3} \times 24)\}$ is close to 7×24 , do not forget the paired creation of these black holes. These cycles seems to be continue till all potential of the 1.4238 hundred billion black holes are generated and determined fundamentally by the Monster number for group symmetry. Every cycle should determine twelve paired galaxies of matter for the twelve congruent universes. Matter most times randomly decomposed in baryonic matter surrounding smaller massive black holes but the one of $M = 4.940 \cdot 10^{40}$ kg as sole BH without a matter around the galaxy. Congruent universes as defined due to group symmetry, nothing but overall congruent and not equivalent.

The definition of the alpha condition is the description of the onset of time creation by the massive galaxy of event of 34.01 hrs. In fact every galaxy contains the same amount of matter due to M_{40} . The omega condition of the universe describes the group symmetric condition for the statistic distribution of matter and the size of the smaller super massive BH in the galaxies decomposing into baryonic matter and mediating dark matter medium, to be continued in par 4.

Important to realize: $168 \text{ hrs} = 7 \times 24 = 6 \times 24 \times \sqrt{4/3} = 6 \times 27.7128 = 166.2768 \text{ hrs}$
 Where $\sqrt{4/3}$ represents the relativistic mass ratio of $m/m_0 = 1 / \sqrt{1 - \beta^2}$ for $\beta = \frac{1}{2} c$ for reaching the maximum possible momentum of the mediating medium.

Par 3 Background and Remarks

Looking up the accepted theoretical sciences about neutron stars, one finds that a stable neutron star can exist at 1.4 times the solar mass with a radius of ten thousand metres while the black hole event radius should be 1.4×1500 metres which seems to violate the one metre event of the Jupiter mass for neutrons as the compacted number by Monster's symmetry. Although corrected $1.35 \cdot 10^{27} / 1.4 \times 2 \cdot 10^{30} = 4.82 \cdot 10^{-4}$ which becomes only a factor $1 / 4.82 = 0.207$ or a fifth metre compared to Jupiter state of the event neutron BH-state meaning it cannot be a real BH condition because the minimum stable neutron star is not a black hole (neutron star of ten thousand metre radius). It also tells us that the imaginary J-state cannot be a stable neutron star, but it can still be a potential candidate for the onset of the Big Bang as a group symmetry for neutrons internally existing of a sole mixture of (17×3) or 17 τ -triplets pseudos and 6 or 2 triplet μ -pseudos of the same kind defined by the pseudo vector theory. See *ref 4*. The defined rest mass of the pseudo τ -neutrino is 34.259 with $4\tau = 137.036$ and the pseudo μ -neutrino is 0.3333 to the electron mass. (Reciprocal of fine structure for the electron of $1/137.036$).

Not explored is the time expansion for the Cartesian coordinate system for the four kinds of pseudo vector matter, normal and conjugated states. Obviously, Helium redundancy mixing of the four matters in opposite four time directions seems to be equivalent to the well known matter/ anti matter mixing conjecture although matter conjugation seems to prevent matter and anti matter destruction by maintaining time symmetry. It is due to the internal pairing condition by nullifying the strong or weak force in the four states of the either electron and proton giving the swapped electric charge to a particle in four kinds. See *ref 4*. How to come to a closed energy time frame in a phase space as a zero energy balance, is the simplest of 3D group symmetries to consider as a equilateral pyramid time frame shown also in *ref 4*.

In the sense of group symmetry the four independent pseudo vector cells consisting of the three perpendicular components as acceleration, spin and precession, form a twelve symmetry group which turns out a time sequence string of $144 = 12^2$ symmetries for the electron and $1728 = 12^3$ symmetries for the quark complex of the proton adding the seventeenth triplet state of 1836 symmetries for electric charge generation with respect to the fast mediating medium. See *ref 4*.
 Note, $(m_{pl}/m_e)^{1/4} = (\text{close to}) 12^5 = 286.2874 \times 1728$ the fourth root of Planck to electron mass ratio of 1.00598 deviation.

It should be clear that gravity carried by the ultra fast and light medium acts as a reaction to virtual time displacement in one time direction due to the internal drive of “conjugated collapse” exchange of paired pseudo vector cells. The pairing results in binary time steps or better due to the uncertainty condition into the qubit state of empty space, represented by Planck’s photons. Further for gravity is valid that the zero spatial point in virtual time displacement is a swap in up/down symmetry of state of the paired conjugated pseudo cells followed by a rotation interval, “conjugated collapse”. The quark complexes are dynamic, not static, similarly for the weak force, the electron. The neutron is a combination of weak and strong force.

Par 4 the omega condition

The omega condition is a discussion and exercise explaining the present-day state of our cosmos:

1. The number and distribution of galaxies of different sizes with their residing super massive black holes.
2. The macroscopic state in relation to the uncertainty condition of the electron. Mainly because the electron is the unit of rest mass for atoms and the subatomic momentary states.
3. The conjecture of gravity generation by the ultra fast and light mediating medium consisting of pseudo vector e-neutrinos has to be extended to the stronger gravities at the surface of the super massive black holes.

Par 4.1 The expansion constant C_{BH}

The uncertainty condition as momentum for the electron is:

$$m_e \lambda_e = h/c \quad \text{with } h \text{ Heisenberg's uncertainty constant.}$$

This condition is valid for as well acceleration as angular momentum of any state of the electron. The absolute physics constant is h/c . Similarly one can make the supposition contrary to the one for the electron, is for the super massive white radiators as the product of the macro mass and the its event horizon diameter. To be used as an absolute constant for the generation of all matter either baryonic or the indestructible mediating medium.

Thus:

$$m_e \lambda_e = h/c = 2.21072 \cdot 10^{-42} \text{ (kg m)} \quad \text{with } h = 6.62607 \cdot 10^{-34} \text{ (kg m}^2\text{/sec)}$$

$$M \lambda = \text{Monster} = 8.080174 \cdot 10^{53} \text{ (kg m)} \quad M \text{ and } \lambda, \text{ super massive white radiator}$$

The group symmetry number embracing all possible symmetry operations gets the dimension of (kg m). The product of both above is the expansion constant of three dimensional spatial space and matter forming the absolute state of condensed coherent (degenerated) dark matter residing somehow inaccessibly in the interior of the white radiator.

$$C_{BH} = 2.21072 \cdot 10^{-42} \times 8.080174 \cdot 10^{53} = 1.786300 \cdot 10^{12}$$

The expansion constant represents two parameters a macro mass and the length or diameter of the event horizon. So one has to make a choice which is the correct size of the white radiator from which matter originates. In par 3 the educated guess for the event was the square root of $L_{coh} = 1.346685 \cdot 10^{27}$ m which also corresponds by the 4th root for the overall mass $M_{tot} = 1.813560 \cdot 10^{54}$ kg. The scaling exercise with C_{BH} amounts to a division for the initial macro masses as M_{tot} , M_{53} (10 times smaller), or the Monster, etc. as the macro mass M and decides about the best choice.

Then for the macro mass contributing universes the integer ten separates into parts:

$$2.244456 \times 4.455422 = 10 \text{ due to derivation in } \textit{ref 1}.$$

$$\text{Take } M_{53} = 1.813560 \cdot 10^{53} / 2.244456 = 8.080174 \cdot 10^{52} \text{ kg}$$

$$\text{Divide } M_{52} \text{ by } C_{BH}: \quad 8.080174 \cdot 10^{52} / 1.7863 \cdot 10^{12} = 4.52341 \cdot 10^{40} \text{ kg}$$

The macro mass of M_{40} is the educated guess as the best choice to generate space and matter around the white radiators for the repetitive cycle of 168 hrs, the six radiators of M_{40} are released, see par 2.

$$\text{With } G/c^2: 7.42733 \cdot 10^{-28} \times M_{52} = 3.3597 \cdot 10^{13} \text{ m, the event } \lambda \text{ of } M_{40}.$$

Get the crossing time for the light velocity:

$$3.3597 \cdot 10^{13} / 2.997246 \cdot 10^8 = 1.120925 \cdot 10^5 / 3600 = 31.137 \text{ hrs}$$

It shows that the best adapted choice to group symmetric considerations gives a slight shift in hours for the M_{40} according to one in par 2 which was 34.01 hrs.

For confirmation, the ratio but not the number of the initial massive white radiators is :

$$(M_{\text{tot}}/6) / M_{40} = 3.02260 \cdot 10^{53} / 4.52341 \cdot 10^{40} = 6.68212 \cdot 10^{12}$$

Divide this ratio by $24 \times \sqrt{4/3} = 27.7128$ and by division: $2.411204 \cdot 10^{11}$ with $\sqrt{} = 4.9104 \cdot 10^5$

The square root ratio can be compared to Planck's to electron ratio: $(m_{\text{pl}}/m_e)^{1/4} = 4.947046 \cdot 10^5$, the maximum contraction for the subatomic particles.

Namely respectively: 284.167×1728 and 286.2874×1728 with 1728 the conserved quark cell for the most sub particle decompositions. All rest mass with respect to m_e . All these ratios for comparing seems to be in agreement to group symmetry.

The deviation $286.2874 / 284.167 = (1.002481)^3$ The value 1.002481 confirms the absolute Planck's deviation in *ref 1* assessed between 1.002490 and 1.002381.

Now take the 4th root of the Monster $8.080174 \cdot 10^{53}$ as $2.998162 \cdot 10^{13}$ in the dimension of the event So the ratio to the above event becomes:

$$3.3597 \cdot 10^{13} / 2.998162 \cdot 10^{13} = 1.12059 \text{ compare to } 1.039271^3 = 1.122500$$

See par 1 and par 4.3 as follow up.

While for the ratio in hours: $31.137 / 27.7128 = 1.123515$ (/1.12059) with deviation 1.002672

$$1.002672 / 1.000113^2 = 1.002479 \text{ well known and mentioned before.}$$

Because the old value for c and the updated one: $2.997584 \cdot 10^8 / 2.997246 \cdot 10^8 = 1.00113$

For comparison the number of future galaxies give by M_{40} :

$$M_{52} / M_{40} = 8.080174 \cdot 10^{52} / 4.52341 \cdot 10^{40} = 1.7863 \cdot 10^{12}$$

Obviously equal to C_{BH} as a different state for the group symmetry, which in summary seems the best and most likely choice with $M_{40} = 4.52341 \cdot 10^{40}$ and event $\lambda = 3.3597 \cdot 10^{13}$ m. *Comment, more details have to be sorted out. The actual mass of our universe is $1.81356 \cdot 10^3$ divided by 1.039271 see par 1 and par 4.3.*

Par 4.2 Determination of range for the massive white radiator and the interior Lamb condition.

The range of massive white radiators from which the galaxies originate. An initial white radiator of M_{40} should be thought 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 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 and 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 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, exact group symmetry 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 $1/2 c_{\text{eff}}$ 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.

Event scaling according to L_{coh} in par 2. 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 surface requirement the square power of Lamb of 0.21^2 m^2 . The product of both is the parameter 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. The two extremes for the range by scaling to the event of λ are:

$$M_{40} = 4.523 \cdot 10^{40} \text{ kg} \quad \text{and} \quad \lambda = 3.3597 \cdot 10^{13} \text{ m}$$

$$M_{33} = M_{40} / \sqrt{\lambda} = 7.804 \cdot 10^{33} \text{ kg} \quad \sqrt{\lambda} = 5.7963 \cdot 10^6 \text{ m}$$

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

$$M_{40}: \text{Surface} \quad \lambda^2 = 1.12876 \cdot 10^{26} \text{ m}^2 \quad \text{surface density } 4.0071 \cdot 10^{13} \text{ kg/m}^2$$

$$\text{or divided by H atom mass: } 2.394 \cdot 10^{40} \text{ atoms/m}^2$$

$$M_{33}: \text{volume} \quad \lambda^3 = 1.9474 \cdot 10^{20} \text{ m}^3 \quad \text{volume density } 4.0071 \cdot 10^{13} \text{ kg/m}^3$$

Giving the same number of atoms for both which is obvious considering the calculation. Take the root of the both kinds of densities due to Sacharov: $\sqrt{2.394 \cdot 10^{40}} = 1.5475 \cdot 10^{20}$ (per m^2 or m^3)

Compare to the criterion of $1.7094 \cdot 10^{20}$. The deviation gives 1.104641 less atoms to be available. Although all coherent gravity exchange happens through the mediation mass between electron and proton which varies considering the conditions of the state of normal stars or coherent condensation between $(250.8082 \text{ and } 220)m_e$ (see chap 7). This kind of scaling does not allow exterior exchange for dark matter mainly because the deviation is less for the atoms, the situation improves in par 4.3.

Par 4.3 The actual range and the number of galaxies of our cosmos

Group symmetric considerations do not allow the physics approach to randomise the range of the initial black holes by subjecting these to collisions in a small containment universe of a 4D-cube of 490 yrs or thousand years due to $\frac{1}{2} c_{eff}$. The group symmetric stochastic condition is guessed to be reached by dice throwing of equal changes giving a Poisson distribution for the galaxies.

To find the range of black holes and the number of galaxies, one has to return to the mass of our universe based on Hubble's distances or event horizon of $13.7 \cdot 10^9 \times 9.4586 \cdot 10^{15} = 1.2961 \cdot 10^{27} \text{ m}$ with one $\text{lyr} = 9.4586 \cdot 10^{15} \text{ m}$. This corresponds as discussed in par 2 having a mass, here M_{53} of

$$1.81 \cdot 356 \cdot 10^{53} / 1.039271 = 1.74503 \cdot 10^{53} \text{ kg.}$$

The number of galaxies should be $1.74503 \cdot 10^{53} / 4.52341 \cdot 10^{40} = 3.85777 \cdot 10^{12}$. However one has to consider a relaxation period for the barons and the mediating medium of dark matter in exchange to the exterior of the super massive black hole. So from par 2 it comes to the division of the factor $(24\sqrt{4/3}) = 27.7128$ determining both the range and the number of initial galaxies which is:

$$3.85777 \cdot 10^{12} / 27.7128 = 1.39206 \cdot 10^{11} \quad \text{and} \sqrt{\cdot}: 3.731 \cdot 10^5 \text{ for the range.}$$

The number is $1.39 \cdot 10^{11}$ galaxies and $M_{35} = M_{40} / 3.731 \cdot 10^5 = 1.21238 \cdot 10^{35} \text{ kg}$ (M_{40} see above)

As confirmation due to the ratio 3/2: $3.731 \cdot 10^5 = 215.916 \times 1728$ close to: $216 = 1.5 \times 144$

The number of galaxies is the only option open to time reduction. Namely multiply by the number of $3.85777 \cdot 10^{12}$ galaxies by the BH-hours as a total then a division by 31.137 hrs makes sense.

Consequently a correction is needed:

$$31.137 / 24 = 1.297375$$

With the fourth root of $\sqrt{2^3}$ the end velocity of opposing time intervals, for a 3D cube:

$$(\sqrt{2^3})^{1/4} = 1.296839 \quad \text{deviation: } 1.000412 \quad (\text{See ref 1 for } \sqrt{2^3})$$

Also $31.137 / 27.7128 = 1.123560$ and $1.039271^3 = 1.122500$
deviation: $1.000994 = 1.000314^3$

This final scaling determines not only that the choice of 27.7128 hrs is correct together it also explains the deviation of 1.039271 for the mass of our universe to $M_{53} = 1.813560 \cdot 10^{53}$ kg.

The square root as the range and the square power of the number give the smallest black hole of M_{35} having the range between $N=1$ and $N(\max) = 3.73 \cdot 10^5$ to M_{40} . The quanta are $\Delta M = 3.73 \cdot 10^5$ 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 3.73 hundred thousand. With a Poisson statistic distribution of the deviation $\sqrt{3.73 \cdot 10^5} = 610.7$ kg and mean $M_{37} = 7.4046 \cdot 10^{37}$ kg. It is supposed that less than the mean has much higher exterior exchange than greater for the mean of dark matter in equilibrium to the event surface and M_{40} has hardly any dark matter exterior exchange.

M_{35} has an event $\lambda = 9.0047 \cdot 10^7$ m $M_{35} \times (G/c^2 = 7.42733 \cdot 10^{-28})$
 Volume: $7.3 \cdot 014 \cdot 10^{23}$ m³ density: $1.6605 \cdot 10^{11}$ kg/m³
 Number of atoms: $9.92212 \cdot 10^{37}$ $\sqrt{=} 9.961 \cdot 10^{18}$ atm /m³ (H atom: $1.6735 \cdot 10^{-28}$ kg)
 Compare to volume Lamb cells: $7.5386 \cdot 10^{18}$ cells/m³ So more atoms than cells.

In the sense of physics the smaller massive black holes are supposed always to generate an excess of dark matter from their surfaces.

Par 4.4 Conclusion of the omega condition:

1. The step wise approach of the omega condition which involved three topics, the scaling for the best choice matched to the calculations in ref1 for the initial M_{40} black hole condition, then the internal condition of the hollow super massive state adapted to the generalized concept of gravity generation by the ultra fast and ultra light mediating medium and as last the determination of the range of super massive black holes. All this is a strong possibility that explains these super massive entities as remnants of the galaxies in the twelve congruent universes of which the matter distribution is due to the group symmetric properties of dark matter.
2. For the confirmation of the alpha condition in par 2, take the number of galaxies of $1.39206 \cdot 10^{11}$ times the hours of 27.7128 hrs giving the same number of above $3.85777 \cdot 10^{12}$ hrs but here in hours. Convert into years $3.85777 \cdot 10^{12} / 8766 = 4.40083 \cdot 10^8$ yrs enclosed in a 3D cube gives 760.64^3 yrs. Then $760.64 = 27.58^2$ yrs, the ratio of 27.58 over 27.7128 also in years is $1.004826 = 1.002410^2$. Once again the remarkable time conversion from years to hours and vice versa which can be understood as follows:

Integer correction: $8766 / 6 = 1461 = 365.25 \times 4$. Twenty four can be valid as a group symmetry integer but $8640 / 6 = 1440 = 360 \times 4$ is the correct group symmetric conversion factor. Namely, $3 \times 5 \times 24^2 = 3 \times 5 \times 576 = 5 \times 1728 = 8640$ with 1728 the conserved state for the quark complexes in most of the sub atomic particles. With the supposition error of $1461 / 1440 = 1.045983$. So 8640 is a conserved integer as per group symmetry.

Comment: It is remarkable how the "idea of a day of rest" returns as the formation time for the super massive white radiator, the state of onset for each galaxy in our own cosmos as God's Creation of the world. At those ages of past millenniums God's Creation had to be restricted to the world without the scientific insight of how fast the expansion of our cosmos had become. Without the a prior knowledge of the formation influencing the number of galaxies, the group symmetric final result for the scaling calculations could not have been completed. The confirmation of the alpha condition has been proven and suggests the perpetual steady state of our cosmos determined by group symmetric considerations of the Monster symmetry number from which it all began. The 2nd part of the conclusion only needs a mathematical treatment proper which is not within the competence of the author.

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 2nd 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: 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 5: <https://vixra.org/abs/2305.0061/> Sakharov’s induction law for the dark matter mediation medium

Ref 6: <https://vixra.org/abs/2305.67/> coherent induction of Coulomb charge for magnetic flux strings by the ultra fast and light dark matter medium

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