A Simpler Yet More Revealing HCE8S Flow Diagram

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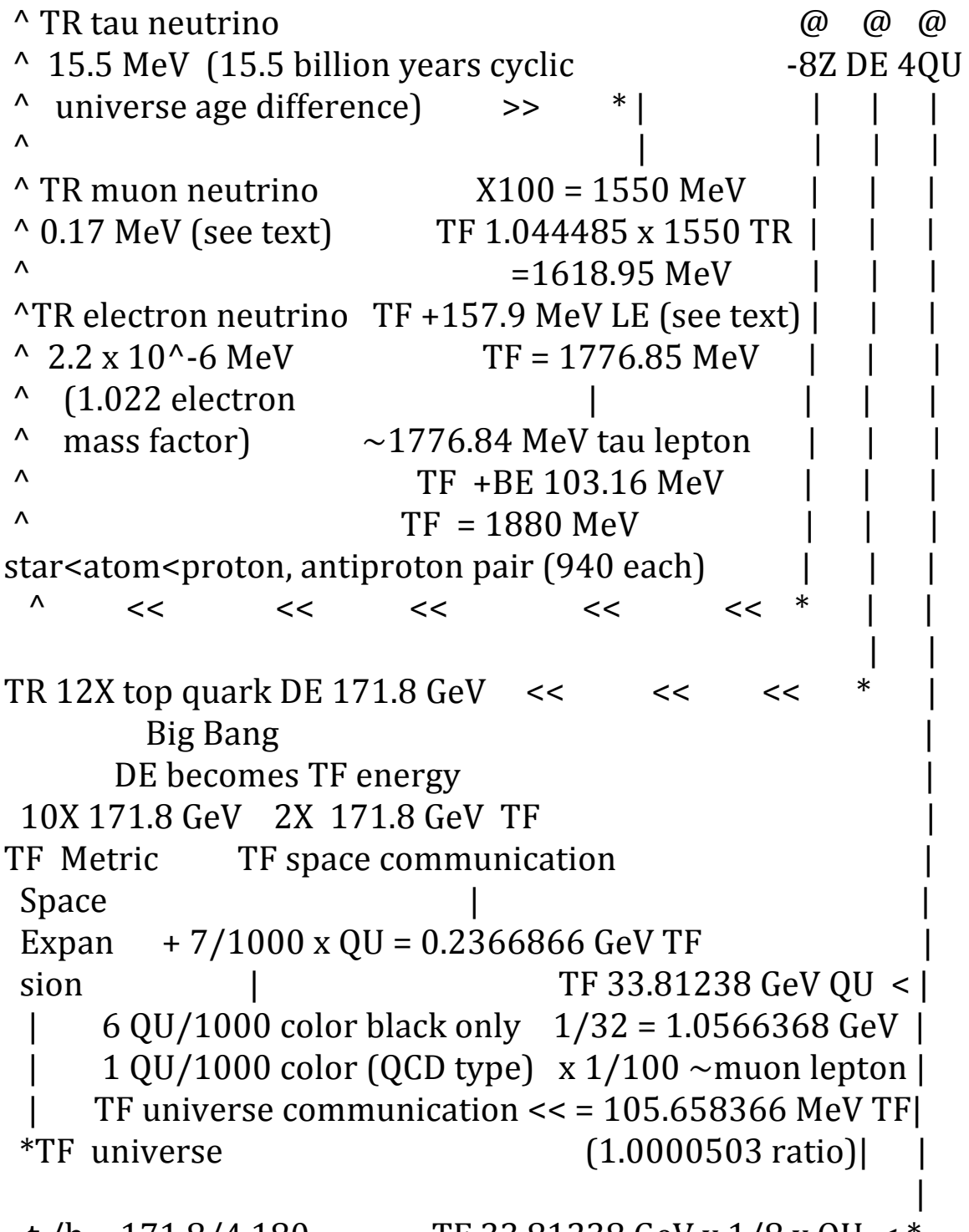
Abstract: A more revealing yet simpler forward-time, reverse-time energy cycle of a now 8th cycle of an HCE8S universe for a full loop of the cycle is shown taking care to identify the TR and TF parts of the cycle

Using data taken from several previous notes[1,2,3] , I will show a time-energy flow chart for a now 8th cycle of an HCE8S universe:

TR time reverse QU quantum of the universe TF time forward
Unbroken E8 symmetry Broken, Holographic E8 symmetry
Entropy decreasing Entropy increasing
LElife energy BEbinding energy DMdark matter DEdark energy

HCE8S Universe:

ttH +ttZ +tH +tZ fermibosons - 4 H, - 4 Z, + 12 top quarks
+ 4 antifermibosons 12 top qk annihilation gamma radiation
= 8 entities/galaxy-sec /galaxy-sec=4(H – Z) =TF 4QU
|| X $(13.797/13.5)^2$ = X$(1.022)^2$ =1.044485 |
* TR energy in >> {1331 GeV/sec-galaxy} >> TF energy out |
^ 1275 x 1. 044485 DM -4H DM -4Z DE 12t |
^ X10^3/sec | super- | | |
^ TR c quark = 1275 MeV | massive | | |
^ c/s (1275/95) = 13.42 billion yrs | black hole | | |
+ 80 million yrs = collapse age of 8th |Higgs cancel | | |
cyclic universe which did not happen | ^+ 4H | | |
(=13.50 billion years) *4(H-Z)=4QU<| < | < |
^ TR s quark = 95 MeV (see text) DM=-8Z | |
^ TR u quark = 2.3 MeV >> *| | | |
^ u/d = 0.4791 million years = | | | |
^ re-ionization at universe age (see text) | | | |
^ TR d quark = 4.8 MeV >> X100 (2u+1d) = proton @ @ @



The bottom quark now being 4 digits in length means that

its value is unchanging and correct and is TR in type. The dimensionless ratio t/b = 41.100478. This[4] is ~ the radius of the universe (in units of 10^26 M) at universe age 13.5 billion years = c/alpha = 137.035999139 x 2.99792458 = 41.082355. The two numbers agree to within 1.00044. This more accurate match requires a slightly lower mass top quark of 171.8 GeV however, instead of the present 172.51. Because this value is not yet officially unchanging to more than 2 digits the muon neutrino mass is only listed (by whom!) as 2 digits in length (0.17 MeV) at present instead of a full 4 digits.

This tells me that the correct masses of all the quarks are no more than 4 digits and have been signaled to us via the 3 neutrino masses, and in fact having 3 TR neutrinos at all in our TF epoch is mainly for this purpose.

While on the subject of the bottom quark I must discuss the multiplier factor I have found necessary to use in going from the TF state to the TR state. This factor is $1/(1.022)^{1/2}$ = 1/1.011. In going from the TR state to the TF on the other hand the factor is $(1.022)^2$ = 1.044485 (see factor multiplying charm quark x and active galaxy energy input. These two different factors have their origins in holography theory which I do not fully understand at this time.

The next subject is the mass of the electron neutrino (2.2 x 10^-6 MeV). This mass value signals the importance of the multiplying factor 1.022 (see just above for example) and is the reason behind the electron's more logical value of .500 MeV being instead ½ x 1.022 eV = 0.511.

The next most massive neutrino is the muon neutrino with a mass of 0.17 MeV. This obviously signals the mass of the top quark, but as we have said, the present value is felt to be

accurate to only 2 digits. The heaviest neutrino is the tau with a mass of 15.5 MeV. This mass obviously signals the age difference in billions of years between successive cyclic universes. Until I realized this I had deduced the age difference at 15 billion years, which I had used for all my previous publications. The effect of the change I assume is negligible but I need HCE8S followers who would check this out since I am almost 94 years old and my mathematics is not too reliable!

The tau neutrino is of TR type and therefore grows in mass by 100X, or 1550 MeV. This seed mass then converts to TF type (with mass increase to 1618.95 MeV): next, an addition of mc^2 LE energy of at least 158 MeV = 1776.95 MeV total goes on to disintegrate tau leptons (mc^2 energy 1776.85 MeV) and create proton, antiproton and neutron, antineutron pairs in our TF universe and eventually form protons and neutrons: these form atoms and finally stars. The stars emit electron neutrinos; these become more massive muon neutrinos and finally yet more massive tau neutrinos (typical TR action but somehow occurring in our TF universe). The cycle then repeats. The known mc^2 energy of the tau lepton tell us the LE which is an important piece of knowledge. The only possible reason for such perverse action as I see it is to grow stars and promote life, i.e. we have an anthropic benefactor controlling the universe!

The next subject I need to clarify is the growing importance of the quark dimensionless mass ratios u/d, c/s, and t/b in HCE8S theory and the lessening importance of c + s and other quark mass sums. In fact, I feel it safe to say that sums are not used at all in the theory. This will require a lot of re-editing of my work, especially the later work. I feel we now have a different dimensionless constant of importance associated with all three quark flavors. These are identified on the flow

diagram. For the u and d quarks we have the age of the universe (in millions of years) at the time of re-ionization; for the c and s quarks the ages of the TF and TR epochs of the 8th universe (in billions of years); and for the t and b quarks the speed (in billions of meters/s) of the cosmophoton measured at universe age 13.5 billion years. For this latter measurement nature gives us the number 41.10 x 10^9 M/s (4.110 x 10^10 M/s). The speed of the cosmophoton = c/alpha = (137.035999 x 2.99792458 x 10^8 M/s) = 410.823 x 10^8 = 4.10823 x 10^10 M/s. This number differs from the t/b ratio by only 1.0004308. The speed of the cosmophoton was evidently purposely chosen to be 4.110 x 10^10 M/s so that we can communicate[4] across the universe in no more than 2000 seconds using it, but this means that the cosmophoton itself is most probably of holographic type that we don't yet fully understand!

1. George R. Briggs, "Holographic cyclic universe E8 symmetry theory indicates that Majorana neutrinos are unnecessary and that neutrinos are divided tau leptons ", ViXra 1711.0325, (2017)

2. George R. Briggs, "The role of charm and strange quarks in holographic cyclic E8 symmetric universe theory", ViXra 1712.0455, (2017)

3. George R. Briggs, "An improved energy flow diagram is shown for an HCE8S universe", ViXraa 1802.0399 (2018)

4. George R. Briggs, "Richard Feynman's "Magic Number" alpha is explained by holographic cyclic E8 symmetric universe theory", ViXra 1710.0341, (2017)