An HCE8S Flow Diagram Including the Z(4430) Tetraquark

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Abstract: A forward-time, reverse-time energy cycle of the 8th cycle of an HCE8S universe for a full loop of the cycle is shown incorporating the Z(4430) tetraquark both as normal matter and DM

Using findings taken from previous notes[1,2], I will show the latest time-energy flow chart for the 8th cycle of an HCE8S universe using Z(4430) tetraquarks:

TR time reverse QU quantum of the universe TF time forward
Unbroken E8 symmetry Broken, Holographic E8 symmetry
LElife energy BEbinding energy DMdark matter DEdark energy
ttH +ttZ +tH +tZ fermibosons +4 antifermibosons
= 1330.88 GeV /galaxy-sec TF/galaxy-sec=4(H – Z) = 4QU
|| 1332.10 – 1330. 88 = 1.22 GeV |
*TF energy in>{1332.10 GeV/ sec-galaxy }>TF energy out |
^ = 1.0447865 x 1275 = 1332.10 GeV DM-4H DM-4Z DE12t|
^ x (13.799/13.5) = $(1.022148)^2$ GeV | super- | | |
^TR (c + anti-c) annihilate= 1275 GeV | massive | | |
TR1000 Z(4430)tetraquarks(see text)| black hole | | |
* c/s (1275/95) = 13.42 billion yrs | | | |
+ 80 mllion 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 = 95MeV= 94+e, anti-e (see text) DM=-8Z |
^ TF 2000 u quark = 2.3 MeV (see text) >> *| | |
^ u/d = 0.4791 million years = | | |
^ re-ionization at universe age X100 x 2u | |
^TF 1000 d quark=4.8MeV>X100x1d proton (940M) @ @
^ TF 1000 disrupted Z(4430) tetraquark, c, anti-c, d, anti-u

^ TR 2000 disrupted Z(4430) DM tetraquark, c, anti-c, u, anti-d
^ TR Z(4430)/$(1.022148)^{1/2}$/tau neutrino=282.6 - 12 =270.6
^ TR tau neutrino @ @ 4
^ 15.5 MeV (1.55 billion years cyclic -8Z DE QU
^ universe age difference) >> * | | | |
^ | | | |
^ TR muon neutrino X100 = 1550 MeV TR | | |
^ 0.17 MeV TR > TF x $(1.022148)^2$ =1.0447865 | | |
^ =1619.42 MeV TF | | |
^TR electron neutrino +157.42 MeV LE | | |
^ 2.2 x 10^-6 MeV TF = 1776.84 MeV | | |
^ (1.022 electron mass factor) = tau lepton | | |
^ TF +BE 103.16 MeV | | |
X2 numerically TF = 1880 MeV | | |
star<atom<proton, antiproton pair (940 MeV each) | | |
^ << << << << << * | |
TR 12X(numeric) top quark DE 171.7 GeV << << * |
Big Bang DE becomes visible TF energy |
10X(num.) 171.7 GeV 2X(num.) 171.7 GeV |
TF Metric space TF space communication |
Expan + 7/1000 x QU = 0.23667 GeV TF |
sion | TF 33.81238 GeV QU < |
| 6 QU/1000 color black only 1/32 = 1.0566368 GeV |
| 1 QU/1000 color (QCD type) x 1/100 = muon lepton |
| TF universe communication < = 105.658366 MeV TF |
*TF universe (1.0000503 ratio) |
t /b = 171.7/4.180 = TF 33.81238 GeV x 1/8 x QU < |
41.076555 = 4.22655/$(1.022148)^{1/2}$ = |
TR bottom quark b = 4.180 GeV TR 4.18051 GeV |
keep 4 digits (1.000122 ratio) |
TF 270.4990 =33.81238 x 8 QU < *
TF (LE + BE + e, anti-e) = 157.42 + 103.16 + 10.22 = 270.8 MeV
270.8/270.4990 ratio = 1.00111. Also 270.4990 x 16 = 4328
and Z(4430) tetraquark /1.022148 = 4334.01. 4334-4328 = 6

The total energy/active galaxy-sec needed to supply the LE + BE + electron/antielectron mc^2 needs in our present TF epoch is (157.42 + 103.16 + 10.22) = 270.8 MeV. It is noticed that TF QU x 8 = 33.81238 x 8 = 270.4990 GeV. The numerical ratio is only 1.00111, but the magnitude is 1000 times larger. Thus 8 QU can supply this energy for 1000 seconds.

Let us also look at the energy 16 x 270.4990 GeV = 4327.984 x 1.022148 = 4423.8401 = 4424. Add 6 to this (for the 6 quarks of our universe) and you have 4430 GeV; viola! you have a strong connection between HCE8S theory and the mc^2 of 1000 Z tetraquarks!

If you TF annihilate 1000 Z tetraquarks/sec you get enough energy (1275 GeV) from the c, anti-c components alone to satisfy the TF per galaxy-sec energy requirements of an average galaxy. In addition you get 1000 d quarks and 2000 u quarks (you must assume Z tetraquarks of type c, anti-c, u, anti-d exist as dark matter). Thus, overall all the loose c, d, and u quarks will be swept up to either energise the E8 broken symmetry of the universe through c, anti-c annihilation or form the protons to form the matter of the universe. The reason why the dark matter is doubled in amount I have explained earlier[3]

1. George R. Briggs, “An HCE8S flow diagram incorporating the latest ideas ”, ViXra 1806.0056, (2018)

2. George R. Briggs, "The connection between HCE8S theory and the Z(4430) tetraquark”, ViXra 1806.0135, (2018).

3. George R. Briggs, "Doubling number of Z bosons while eliminating H bosons: result of perceived dark matter annihilation", ViXra 1605.0286, (2016)