An Energy Flow Diagram for an HCE8S Universe

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Abstract: The forward-time, reverse-time energy cycle of the 9th cycle of an HCE8S universe for a full loop of the cycle is shown

Using data taken from several previous notes[1,2] , I will show a time-energy flow chart for the 9th cycle of an HCE8S universe:

Time backwards UQ = universe quantum Time forwards
Unbroken E8 symmetry LE = life Broken E8 symmetry
Entropy decreasing energy Entropy increasing
DM dark matter, DE dark energy, DUQ dark universe quantum

HCE8S Universe:

ttH +ttZ +tH +tZ - 4 H, - 4 Z, + 12 top quarks
+ 4 antifermibosons annihilation gamma radiation
=8 fermibosons/galaxy-sec /galaxy-sec=4(H – Z)=4UQout@
|| X (13.8/13.5) = X1.0222222
Energy in >> [1370.4106 GeV/ sec-galaxy] >> energy out
^ annihilated top quarks DM= -4H DM= -4Z
^ X10^3 sec DE 172.51 GeV | | |
(s + c) quark = 1370 MeV | supermassive |
^ c/s = (13.42) (see below) ~ | black hole |
Scheduled collapse age of 9th | | cancel |
universe which did not happen | | ^+ 4H |
(=13.50 billion years) | @ in 4 UQ = 4(H-Z) > |
^ | DM= -8Z
s quark=95MeV LE=950-938.3=11.7 | |
^ X10 X100 = 938.3 MeV > | > > proton, atom > star
Basic matter: 2u, 1d quark ~ 9.4 MeV | DM electron neutrino|
@ @

Broken symmetry DE 172.51 GeV @ DM=2.2x 10^-6 MeV @
| DM becomes matter |
<< up quark = 2.3 MeV << | < < X10^6 MeV |
Unbroken symmetry | |
<< down quark = 4.8 MeV | 0.17 MeV |
^ | matter muon neutrino |
X10^3 = 4.8 GeV ~DM bottom quark | 15.5 MeV |
| matter tau neutrino *
5/6 x 172.51 GeV << M << | X100 = 1550 MeV
Space expansion | +7 x UQ = 1752.86 MeV
| ~ 1776.84 Tau lepton
1/6 x 172.51 GeV << M << | matter
Space communication * (1/2% low)
|
| 33.810675 GeV UQ @
6 UQ color black only + 1/32=1.0565835 GeV
1 UQ color (see tau lepton) X1/100 = muon lepton
= 105.658366 MeV

<< Bottom quark
DE (t + b) = (172.51 + 4. 2263) ^ 1/8 x UQ @
= 176.7363 GeV. Compare to X100 ^ 4.2263343 GeV =
1776.84 MeV = mc^2 tau lepton = ^ << bottom quark
1.0053622 (1/2 % low).

Using HCE8S theory, and working backwards from the accurately known mc^2 of the muon, we can find a better value for the UQ (33.810675 GeV) and in turn the bottom quark (4.2263343 GeV) and most importantly, the Higgs particle (33.810675 + 91.18762) = 124.99829 GeV, which now is only a factor 1.0000136 lower than 125. However, the E8 universe mc^2 remains at 1370.4106 GeV /sec-galaxy, since only the top quark and Z particle mc^2 masses determine its value (12 x top quarks – 8 x Z's).

Some adjustment of the mc^2 energies of the c and s particles is also called for. We first have c + s = 1370.4106 MeV. Also c/s =13.5 and c = 13.5 x s : thus 14.5 x s = 1370.4106 and s = 94.511075 MeV. Ten times this mc^2 is to be compared to 938.272081 MeV for the proton. The proton has recently[3] been found to be a factor 1.007276466583 lower in mass, or 931.49415 MeV. This is a factor 1.0072885 lower than 10X the s particle mass or 945.11075 x 1.0072885 = 951.99918 MeV. This is the best value we have to date for the life energy LE. This is only 952 MeV/1370 GeV or 0.69489 x 0.1% of the total energy of the universe! This won't seem so bad after you multiply by the number of active galaxies (10^27) and again by the number of seconds in 13.5 billion years to find the actual energy (GeV).

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

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

3. "Precision study reveals proton to be lighter", Cern Courier, Aug 11, 2017