Conseqence of Rapid Top Quark Decay to Massless Gauge Boson

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Abstract: Rapid top quark decay to massless gauge boson, particulary to the fast-moving cosmophoton, is the subject of this note.

Because top quarks decay so fast[1] that they cannot hadronize into bound quark particles means that
The decay products of **top quark** matter of **171.7** GeV are restricted in number to 12 types of bosons and leptons which we considered in our last note. We did not consider however the role that massless gauge bosons have played, especially that of the cosmophoton[2,3] gauge boson. This new type of photon could potentially be faster than light.

The analog of planck's constant[4] (4.1356675 x 10^-15 eV-s) = 41.356675 x 10^-22 = GeV cycles/s for light is the (quantum of the universe = H-Z = 125.1-91.19) x GeV cycles = 33.91 GeV per cycle for cosmophotonic communication. Both quantities are GeV of energy. Now 4-digits 33.91/41.35 x10^-22 = 0.8200 x 10^+22 = **0.82 x 10^+22** dimensionless[5].

We note that the Higgs boson 4-digit mass is now **125.1** GeV (125.18 GeV measured mass for this calculation, which is undoubtably[6] correct, and not 125.0 GeV as earlier measured (125.09 GeV), and is a connection between the quantum of the universe (now 33.91~ 34 GeV) energy and planck's constant 41.35 x 10^-22 (GeV energy-s).

Let us calculate the average energy required to send a 1-page message of 33 x 70 = 2310 characters@6x8 = 48/2 = 24

bits per character = 2310 x 24 = 55440 cycles = 5.544 x 10^4 x 4.135 x 10^- 22 GeV = 22.92 x 10^- 18 MeV = 2.292 x 10^-17 MeV energy: This is a very reasonable energy to expend for a 1-page fast cosmophotonic message.

A holographic large-scale universe is also a requirment for the fast cosmophoton to function. Our large-scale universe has been holographic since at least[7] the 2nd cyclic universe.

1. "Hadronization", Wikipedia (2020)

2. George R. Briggs, "The superfast cosmophoton enables us to contact the center of our galaxy in 0.6 x 10^-4 sec. ", ViXra 1812.0264, (2018)

3. George R. Briggs, "Feynman's "magic number" alpha explained by holographic cyclic E8 symmetric universe theory", ViXra 1710.0341, (2017))

4. "Planck constant", Wikipedia, (2020)

5. "Magic number" (physics), Wikipedia

6. "Higgs boson", Wikipedia, (2020)

7. George R. Briggs, "Up$_{proton}$ quarks of 4.8 MeV and electron neutrinos of 2.2 x 10^-6 MeV both arose in a holographic 2nd cyclic universe",ViXra 1907.0623, (2019)