

## The Modern Electron is Slightly Heavier Than its Archaic Version; Why is This So ?

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Abstract: The modern 0.511 MeV electron was established by the start of the 3rd cyclic universe. Why it had its 0.511- 0.5 modern vs. archaic  $mc^2$  energy difference and more is the subject of this note.

The 0.011 MeV  $mc^2$  mass difference of the modern vs. archaic electron =  $11 \times 10^{-3} \text{ MeV} = 33/3 \times 10^{-3} \text{ MEV}$  indicates<sup>1</sup> that a non-holographic 1st cyclic universe of only 0.5 MeV archaic electrons existed; during the 2nd (now holographic) cyclic universe these converted to modern electrons via 33 MeV energy quanta.

The fact that "quanta of the universe" date back to the 2nd cyclic universe is important to know. Their present H - Z value of  $125.09 - 91.19 = 33.9 \text{ MeV}$  is consistent with their earlier 33 MeV value. The numbers 1, 2, 4 and 8 are important because of their E8 symmetry association. Also the additional numbers 3, 5, 11, 22 and 33 came in by the end of the 2nd cyclic universe. During the 3rd cyclic universe 4 new 3-digit particles arose: The 0.511 MeV electron, 125 MeV Higgs boson, 3.55 MeV  $\text{down}_{\text{neutron}}$  quark, and 4.18 MeV bottom quark particles joined the two 2-digit proton quarks (4.8 and 2.3 MeV). We note that the 4.8 MeV  $\text{up}_{\text{proton}}$  quark (having E8 symmetry numbers only) =  $2.190^2 \text{ MeV}$  (holographic) =  $2.2 - 2.190 = 1/100 \text{ MeV}$ . This indicates time was going forward from an earlier unbroken symmetry reverse time epoch which already had holography, but this epoch was only a small part of the 2nd cyclic holographic universe; the 2.3 MeV  $\text{down}_{\text{proton}}$  quark (having the non-E8 symmetry number 3) also dated from the 2nd cyclic universe but came after the 4.8 MeV quark.

1. George R. Briggs, "Small corrections to the critical density calculation in MHCE8S theory produce full agreement with Planck Collaboration data", ViXra 1901.0221, (2019)