

## A 2nd Revised and Improved MHCE8S Model Of Physics

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Abstract: The dark heavy particle is included in this model.  
All masses are 4 digits or less, including the  $\text{down}_{\text{neutron}}$  quark

### 8 Quarks:

$$\text{up}_{\text{proton}} = 4.8 \text{ MeV (all)}$$

$$\text{Down}_{\text{proton}} = 2.3$$

$$\text{Charm} = 1275$$

$$\text{Strange} = 95$$

$$\text{Top} = 171.7 \times 10^3$$

$$\text{Bottom} = 4.180 \times 10^3$$

$$\text{Up}_{\text{neutron}} = 3.55$$

$$\text{Down}_{\text{neutron}} = 2.29$$

### 4 Bosons:

$$\text{Higgs} = 125.0 \times 10^3$$

$$\text{Z}_{\text{weak}} = 91.19 \times 10^3$$

$$\text{W}^+ = 80.38 \times 10^3$$

$$\text{W}^- = 80.38 \times 10^3$$

### 4 Massless gauge bosons:

Photon

Graviton

Gluon

Cosmophoton

### 8 Leptons:

$$\text{Electron} = 0.511$$

$$\text{Muon} = 105.6$$

$$\text{Tau} = 1776$$

$$\text{Archaic electron} = 0.5$$

$$\text{Electron neutrino} = 2.2 \times 10^{-6}$$

$$\text{Muon neutrino} = 0.17$$

$$\text{Tau neutrino} = 15.5$$

$$\text{Z(4430) neutrino} = 4430$$

1 Quantum of the universe =  $33.91 \times 10^3$  (vs. 33.81)

1 Dark heavy composite spinless chargeless particle = 3552<sup>1</sup>

We note that  $3552/33.91 \times 10^3 = 0.10474786 = 0.1047$   
(4 digits) = 0.10 + 47 = 0.10 billion years unbroken E8  
symmetry time<sup>2</sup> + the atomic number 47 (silver, wealth).

The reason why we are now happy with 3 digits for the down  
neutron quark is that we have made the realization that we

can accurately calculate<sup>3</sup> 5 digits for it as soon as we know the 1st 3 digits of its companion (3.55). We now also update this publication following the recent increase of the quantum of the universe by 0.1 GeV.

1. George R. Briggs, "Heavy dark matter neutrino tau-antitau pair existence reexamined", ViXra 1910.0262, (2019)

2. George R. Briggs, "The 4430 mev neutrino is a signal that the universe includes 0.1 billion years of unbroken E8 symmetry time", ViXra 1811.0227, (2018)

3. George R. Briggs, "The most accurate neutron mass calculation", ViXra 1903.0301