

## The 4430 MeV Neutrino is a Signal That the Universe Includes 0.1 Billion Years of Unbroken E8 Symmetry Time

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**Abstract:** The surprising capability to be able to use the mass of the newly-discovered 4430 MeV neutrino together with MHC8S theory as a way of signalling the length of time the universe includes E8 unbroken symmetry is shown.

The capability<sup>1</sup> of using MHCE8S universe theory together with the 4430 MeV mass of the newly-discovered<sup>2</sup> heavy Majorana neutrino to find the 0.1 billion-year length of E8 unbroken symmetry time required for each E8 broken-symmetry cycle universe is remarkable.

Starting with the 13.5 billion-year E8 broken-symmetry age of the 4th cyclic universe, we find the age of the 3rd universe (13.5 - 1.55 billion years = 11.95 billion years), then the 2nd (11.95 - 1.55 = 10.4 billion years), then the 1st (10.4 - 1.55 = 8.85 billion years). The total is 13.5+11.95+10.4+8.85 = 44.7 billion years, and 44.7 - 44.30 (4430 MeV mass of the new neutrino signals 44.30 billion years) = 0.4 billion years E8 unbroken symmetry = 0.1 billion years for each cyclic universe. We note that only the numbers key numbers 13.5 and 1.55 together with 4430 are needed for this calculation.

1. George R. Briggs, "The significance of broken and unbroken E8 symmetry time is shown for an MHCE8S universe", ViXra 1810.0507, (2018).

2. George R. Briggs, "MHCE8S theory indicates that the energetic neutrino observed in antartica is a heavy (4430 MeV) Majorana neutrino ", ViXra 1811.0136, (2018).