

Negative Mass-energy is Real Only With Unbroken E8 Symmetry: Briggs's Answer to the Hartranft's

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Abstract: I agree with the Hartranft's (see viXra 1501.0163) that a cosmological model based on + and - mass symmetry is entirely possible but only under unbroken E8 symmetry conditions. Unfortunately in the present epoch E8 symmetry is now broken by U(1) with the result that negative mass-energy can no longer be produced. Nevertheless its real effects in our epoch including the effects of dark energy and dark matter are observable.

The Hartranft's give a thought-provoking argument against the inflation episode and dark energy. I agree with them about inflation but not about dark energy - it was generated negative mass-energy that provided the dark energy (and dark mass) that we now propose. The E8 x U(1) symmetry-breaking event was the big bang. It produced our present feeble force of space-time gravity and also allowed matter to transfer to the rejuvenating universe from a prior universe in massless fermibosonic form.

Unfortunately this E8 symmetry-breaking event is not yet recognized by the physics community and is unlikely to be any time soon, especially since the E8 symmetry group has only a single group member mathematically and this is intolerable to many physicists. We will have to wait. My very right-brained mind¹ (I had a right-side stroke 12 years ago at age 78) keeps telling me to wait.

The coming events at the large hadron collider may speed things up. If it can be shown that the last leptonic or true 2- or 3-quark quantum particle was the 248th (the representation number for E8 symmetry²) it will be strong evidence that E8 is indeed the top symmetry of the universe.

1. Darold A. Treffert, "Accidental Genius", pp. 52-57, Scientific American, (Aug. 2014)

2. A. Garrett Lisi, "An Exceptionally Simple Theory of Everything", Wikipedia, ((2007)