Dark Energy is Expansion of Space: it is Generated By Annihilation of Negative-Mass H and Z Bosons But Has No Negative Energy Itself

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Abstract: Dark energy cannot be negative-energy radiation: it is generated by annihilation of redundant negative mass in our broken-E8 symmetry epoch in which new negative energy is not allowed.

My letter[1] outlining a cyclic universe of E8 symmetry makes use of 2 supersymmetric fermibosonic entities for bringing matter, both fermionic and bosonic, from the previous universe into the present universe. Unbroken E8 symmetry permits production of spin 0 and spin1 boson entities of fermibsonic supersymmetric type basically needed for the cyclic universe (having negative mc^2). The spin 1 type brings weak massive bosonic matter into the new universe. Note that the W particles are not included: When the E8 symmetry is unbroken, negative mc^2 W particles accompany each W, and the net mass energy is 0 so the combination can pass into the new universe without flatness problems. Where the negative energy component becomes dark matter and the positive energy component is observable (e.g. the W is not lost). The W's are converted into radiation energy with the big bang E8 symmetry breaking and this passes directly into the new universe to form the microwave background radiation of high isotropy.

The supersymmetric fermibosonic entities made in our epoch of broken E8 symmetry cannot be made with negative mc^2. Instead, the mc^2 energy is positive (this is what is observed at the LHC): for negative mc^2 we need the unbroken E8 symmetry of the epoch before the big bang. However, negative mc^2 for the bosonic component formed before the big bang may still be present in our epoch.

1. George R. Briggs, "E8 symmetry universe theory: a step-by-step history", viXra 1505.0039, (2015)