Correction of an Error Results in a 248-Different Particle E8 Symmetry Universe Rather Than a 252-Particle Universe

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Abstract: The boson count of 8 for the cyclic universe theory included 4 massless gauge bosons. These should not have been included in the particle count ((all massive). Correction of this error results in an E8-symmetry cyclic universe of exactly 248 different massive particles.

My letter[1] indicated that a cyclic universe of 252 massive particles was to be expected for a gauge boson count of 8 (the 8-fold symmetry of life). The 4 massive bosons are 2 W, a Z, an H and the 4 massless bosons are 2 for the spin 0 and spin 1 fermibosonic entities and the graviton and photon. The massless bosons have to be eliminated from the particle count, bringing the total count to 248, (all massive). Unbroken E8 symmetry permits production of spin 0 and spin1 fermibosonic entities of supersymmetric type basically needed for the cyclic universe to work.

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 made before the big bang may still be present in our epoch and may still be detectable.

It is necessary to realize that the massive particles here all have less than 4 quarks, or 3 quarks and a massive boson.

1. George R. Briggs, "the tetraquark and proton are the 248th plus 2nd different particle and antiparticle in our E8 x U(1) broken symmetry universe", viXra 1504.0035, (2015).