

Is the ttH Process a Marker for Fermibosonic Entities of E8 Symmetry?

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Abstract: The recent finding by CERN of a rare process of Higgs-boson production in association with two top quarks makes one wonder if this process, like the tetraquark particle, serves a marker function, in this case for the existence of fermibosonic entities of E8 symmetry.

The fermibosonic entity plays a critical role in the E8 symmetry theory of the universe. The entity is a non-quantum composite of positive intrinsic energy (mc^2) fermions and negative intrinsic energy ($-mc^2$) bosons and has no net mass. We live in a $E8 \times U(1)$ broken symmetry universe and cannot observe or manufacture the negative energy particle or the fermibosonic composite. However, the composite already made in the previous unbroken E8 symmetry epoch is not lost in our epoch and we need some method of being informed of this. Perhaps nature has provided us with the ttH process¹ for this sole function, as this process seems to serve no useful purpose. The dual fermion (tt) aspect alerts us to the fact that both matter and antimatter are brought in to the universe through spiral galaxies resulting from fermibosonic entity decomposition. The somewhat less antimatter is eventually entirely annihilated in the bar and central bulge galaxy regions. The 0-spin H particle aspect alerts us to the 0-spin bosonic character of the negative intrinsic energy ($-mc^2$) part of the fermibosonic entity (of 0-spin type in this case). Nature has limited the ttH production in this case because the H particle had to be of positive intrinsic energy instead of negative intrinsic energy to be observed in our broken-symmetry universe and this form of the particle serves no useful function in nature except as a marker function.

1. CERNcourier, p. 1, Apr 27, (2015)