Muon Lattice-QCD Models Need a Deeper Fix

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[Email excerpt]

… Or, rephrasing what I said earlier about variances in modeling muon magnetism:

It should be possible to algorithmically collapse the lattice models for muon magnetism. In the collapsed versions, the observed variances in muon magnetic moment predictions should show up as simpler and more explicitly fermion-family related.

Lattice models are powerful, but they are also one of the most extreme examples of classical-reality-first modeling. That's because the lattice concept is to model small-scale reality as a matrix of close-packed classical points. Such models then use renormalization -- which, incidentally, depends on measured data, not theory, to set renormalization factors -- to cancel out the resulting astronomical explosion of non-physical energy that results from squeezing points too tightly in the model.

Collapsing a lattice model is a two-step process. The first step removes all Buzz Lightyear Regrets sections, and the second replaces them with generative models that acknowledge and leverage the algorithmic potential of acknowledging that weak-blind fermions have negative energy.

The Buzz Lightyear Regrets (BLR) regions of the lattice algorithms are the sections that say: "First, send energy levels to Infinity and Beyond by squeezing shrink-resistant quantum reality into a soothingly primate-brain-compatible lattice of hyper-classical lattice points. Next, to get meaningfully finite results, regretfully retract all those energy infinities by then applying a funky, lab-reality-driven, sort-of-formal process called renormalization."

The second step is to replace the excised BLR chunks with conservation-first generative algorithms. These *start* with absolute energy conservation. Model predictions then emerge as consequences of that more fundamental and intransigent conservation rule.

However, this idea of absolute energy conservation as the algorithm driver only works by explicit acknowledgment of the existence of negative-energy fermions, which then enable the generative steps by forming transient virtual pairs with the positive-energy fermions that dominate in our universe.

That's why the Standard Model is chiral. The weak-blind chiralities of fermions -- the right-handed fermion chiralities for matter, the left-handed ones for antimatter -- are the thinly-disguised negative-energy fermions. They cannot participate in weak force transformations because they exist only as fleeting virtual particles in our universe. In the contraverse, however, those same fermions become the weak-aware set while our positive-energy fermions become the weak-blind ones.

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