

# A Modestly TACTful Multiverse Proposal

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2023-08-27.09:16 EDT Sun

[https://youtu.be/W7mMCw\\_le78&lc=Ugycb6ejAxXGdeI4AFI4AaABAg](https://youtu.be/W7mMCw_le78&lc=Ugycb6ejAxXGdeI4AFI4AaABAg)

A Comment on the [Dr Brian Keating](#) (YouTube) post:  
*The Most Fascinating Discoveries About the Origin of Our Universe* (Aug 27, 2923)  
[https://youtu.be/W7mMCw\\_le78?t=4m14s](https://youtu.be/W7mMCw_le78?t=4m14s)

**Abstract:** TACT is an intentionally silly name for an entirely serious multiverse proposal, Terry's Annihilating Cockroaches Theory. As Dr. Brian Keating so aptly notes, multiverse theories spawn like cockroaches. Thus, the goal of experimental science should be not to support them but to annihilate them. Eliminating TACT should be particularly trivial since it predicts right-handed fermions and left-handed anti-fermions to have negative gravitational mass.

**4:14 BK:** "Our job as experimentalists should be exterminators — we should be killing as many cockroach-like theories as possible." That's a great quote! And as long as it's appropriately recognized as nothing more than yet another of many humble cockroach theories, here's an easily exterminatable one I'll bet you've never seen before:

Multiverses intermix and *mostly* mutually cancel. Mutually annihilating multiverses gives flat space more easily because getting them *not* to cancel is the real trick.

Why is Terry's Annihilating Cockroaches Theory (a very TACTful theory) "easily exterminatable," though? We already have abundant accelerator data on the last two universes left standing after the general mutual annihilation melee: Left-chiral and right-chiral matter ([FIG. 1](#)), with a tiny preponderance of Left-chiral matter [[1](#)].

The easily-exterminated TACT cockroach is that the right-handed versions of matter must have *negative gravitational mass*. This pairing cancels out *almost* all of the left-handed version to give mostly flat space — a highly introspective version of inflation.

If well-studied right-handed fermions have negative gravitational mass, then wow... There must be a way to detect that, possibly by looking more carefully and from a different angle at abundant existing data on right-handed fermions.

The tiny excess of left-handed fermions gives our universe a slightly positive gravitational mass. The relentless attempts of our co-resident right-handed universe to annihilate us drive the dynamics of time ([FIG. 2](#)).

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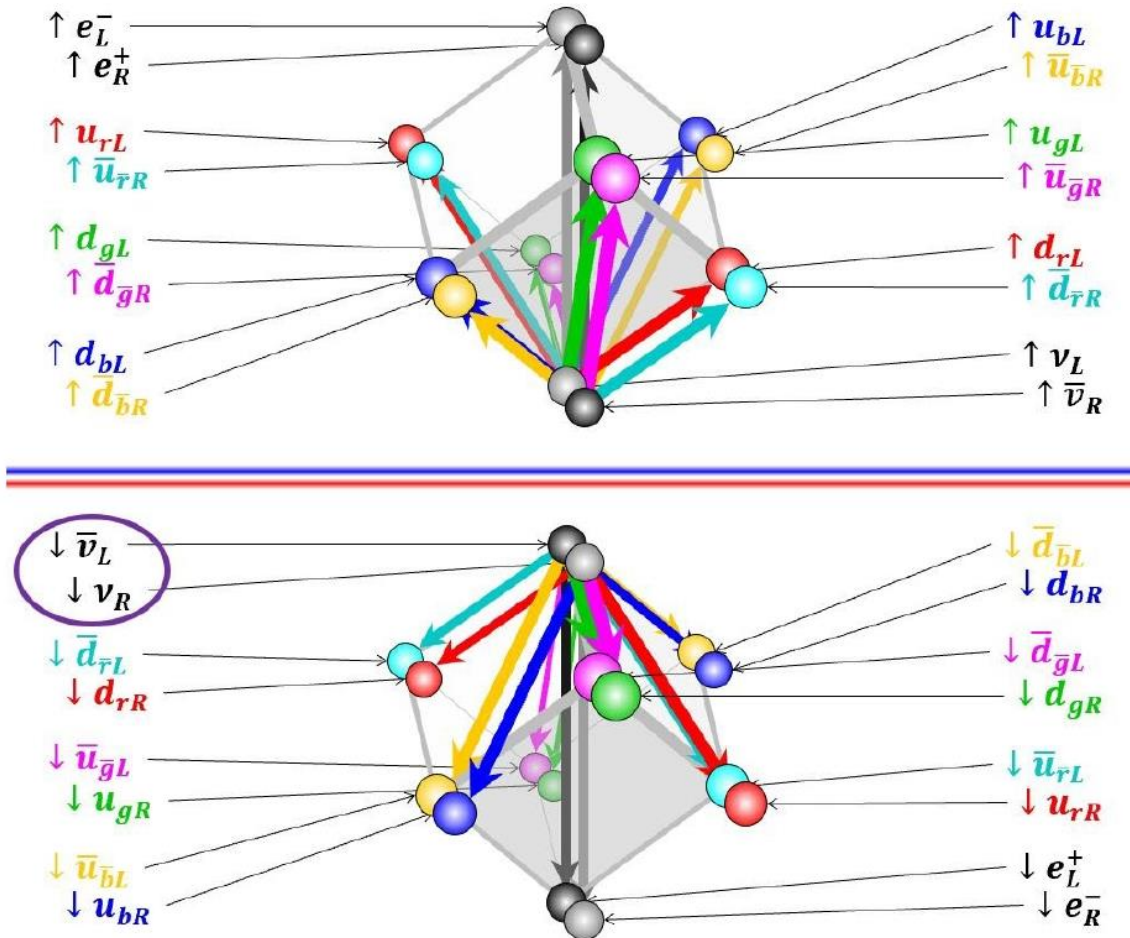
## References

- [1] T. Bollinger, *On Quantizing General Relativity: An Overview*, Apabistia Notes **2022**, 04311039 (2022).

# E+ and E- Fermion Groups

## $E^+$ Fermion Group (Weak-Aware)

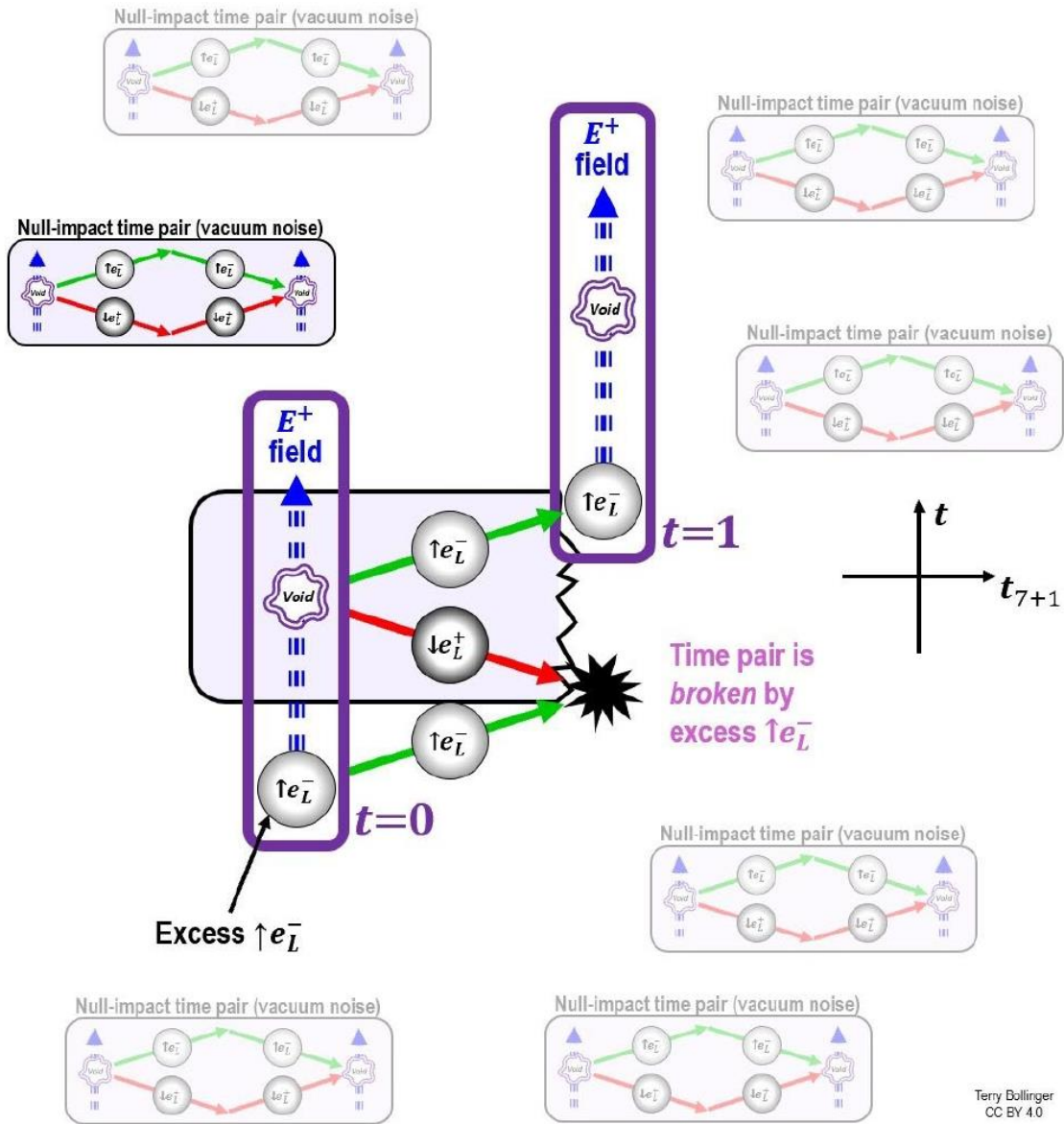
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## $E^-$ Fermion Group (Weak-Blind)

**Figure 1.** Fermions of the two post-mutual-annihilation co-located multiverses. The  $E^+$  fermions (top) have positive gravitational mass, while the  $E^-$  fermions have negative gravitational mass. Our universe contains a slight preponderance of the  $E^+$  universe fermions. Both fermion types play vital roles in dynamics, but only the positive-mass fermions persist over time. Negative-mass fermions only show up transiently via what, from a positive-time perspective, is the Higgs mechanism.

# Time as Destabilized Time Pairs



**Figure 2.** The slight excess of  $E^+$  positive gravitational mass fermions destabilizes the co-located universes, creating a forward-moving (and very much real) edge of time. This edge appears within any given condensed-matter observer frame as the "present" moment. A second co-located pair of multiverses with an opposite time direction balances out the total fermion count with an excess of  $E^-$  fermions.