The Strandbeest Universe

Terry Bollinger
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YouTube: https://www.youtube.com/watch?v=LJzKLTavk-w&lc=UgysCov84th4Adn1ImZ4AaABAg.9b_31lzbg6E9bcfxnmIXkn
Patreon: https://www.patreon.com/posts/chaos-real-with-66776672

Comment on YouTube Sabine Hossenfelder post:
Chaos: The real problem with quantum mechanics
https://youtu.be/LJzKLTavk-w

chrslb (YouTube): I really didn't get this one. Isn't there a computational limit that applies in practice to chaotic systems, even if they're not maybe technically chaotic because they are for example simulated on a computer?

Terry Bollinger: Yes. The founding fathers of both quantum mechanics and relativity were pre-computer continuum-math devotees, and thus had almost no appreciation for the severe precision limits that finite local energy imposes on both the physical world and our models of that world. This caused a century of perplexity in which infinities popped up constantly in our math due to inattention and indifference to this issue. For example, the simplest definition of quantum mechanics is that it is the limit of resolution possible given the finite energy resources of our material world.

chrslb: Thank you! Are you talking about some kind of finite computation model of reality? It would be interesting to hear more about this. I wonder if naively this means that our world behaves as if it were simulated on a computer.

Terry Bollinger: It's a finite computation model, but the computer and the software are one and the same, with the behaviors we call physics emerging as the parts interact and constrain each other. Strandbeests are a better analogy: https://youtu.be/LewVEF2B_pM

[In fact,] that may become the title for a seriously technical Apabistia paper: "A Strandbeest Universe".

Why "seriously technical?" The components of this... quantum strandbeest?... necessarily extend below the structure of both spacetime and the particles of the Standard Model.

The analogy gets surprisingly specific. For example, the three colors of the strong force, when fused irreversibly with the fractional electric charges associated with them in all real particles, become three of the most important near-ground (possibly at ground) orthogonal construction units of the... hmm, how about "quandbeests"?... Yeah, that works better.

A tight dance of such "color bar" units gives the fundamental fermions of the Glashow cube, while a more loosey-goosey dance on the same cube gives the mesons and hadrons.

As with Strandbeests, sufficiently large collections of smaller quandbeests (QBs, pronounced "queue-bees"?) collectively self-orient and begin moving in a single consensus direction. We like to call that direction "time."

As Einstein envisioned until he was later overruled by Minkowski, the time units of this universal quandbeest (UQB?) are not continuous. They are more like ticks of a clock, providing the individual steps of the universal quandbeest as it moves across the sands of time.

So... again, chrslb, thanks. I like this analogy. When one is taking an, um, different :) approach to interpreting a huge body of very standard, well-proven physics data, it helps to have a clear visual analogy in your head. That's just the way our brains are built.

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https://sarxiv.org/apa.2022-05-29.1836.pdf