

Postulate 1

Introduction

Modern fundamental physics theories such as the Standard Model (SM) contain many assumptions(postulates). So where do all these assumptions come from? This is not real understanding. It is curve fitting. So why bother?

So what is that single simple postulate required for complete understanding?

The **fundamental insight** that answers this question is that Cantor's (1) Real Number(eg., **1**) definition requirement of a Cauchy *sequence* (**$z_1, z_2, \dots, z_N, \dots$**) of rational numbers is here provided by the Mandelbrot set iteration formula (**$z_{N+1} = z_N z_N + C$**) eq.1a (&1b) *sequence* (**$z_1, z_2, \dots, z_N, \dots$**).

Results

So we can then merely **postulate 1** (real set) to get eq.1a,1b which (given the **Small C** and **Big C** consequences of the **C** in eq.1a) answers the above question.

Appendix

Small C For $C \rightarrow 0$ (i.e., small **C**) in eq.1a we have only one *noniterative* equation:

$$1, 0 \approx z_1 = z_\infty \equiv z = z z + C \quad (\text{eq.1}).$$

Plug eq.1 **C** into eq.1b ($\delta C = 0$ for some **C**) and, after simple factoring, get Special Relativity (SR is eq.2A: $dr^2 - dt^2 = ds^2$ in DavidMaker.com) and with the two eq.2AIs gives two unbroken 2D degeneracies in eq.2B (Clifford algebra, sect.2 for leptons) implying 2AIA and so the math of observables (eq.3.4: $(dx/ds)\delta z = -id\delta z/dx$). Binary(1,0) real numbers(math) also results.

Big C_M is the entire Mandelbrot set(simply *rotates* the z for small **C**, sect.4) and so 10^{40N} Xfractalness. Note for large **C** the 2AIA diagonal turns eq. 2AI into eq.9 electron, muon, tauon (fig.1) on 3 Lepton family Reimann surfaces respectively given eq.2AII.

N+1th Fractal Scale Cosmological scale (appendix B) for r_H in eq.9

We then get new eigenvalues associated with $(10^{40})^N$ Xcosmology, The C_M rotation turns SR into GR (eq.4.2) and breaks those two 2D degeneracies into a **4D** Clifford algebra of Mandelbulbleptons.

Nth Fractal Scale Subatomic scale (appendix B) 10^{40} X smaller r_H in eq.9, selfsimilar.

Many Body eg., Three 2AI pure states (baryons, PartII) and PartIII mixed states.

Get $Z_0, +W, -W$ at $r=r_H$ from those z rotations so we get the SM.

So when you postulate 1 real set this is the result (or just **postulate 1**), answering the above question and so deriving both real#math and physics.

Summary

That **4D** implies we got not more and not less than the physical universe. Also given the fractalness, astronomers are observing from the inside of what particle physicists are studying from the outside, that **ONE** thing (eq.9) we postulated. Try looking up at a starry night sky and contemplating that some time. So by knowing essentially nothing (i.e.,ONE) you know everything! We finally do understand (just postulate **1**).

References

(1)Cantor: Ueber die Ausdehnung eines Satzes aus der Theorie der trigonometrischen Reihen, "Ueber eine elementare Frage der Mannigfaltigkeitslehre" Jahresbericht der Deutschen Mathematiker-Vereinigung

