**This Theory Is 0**

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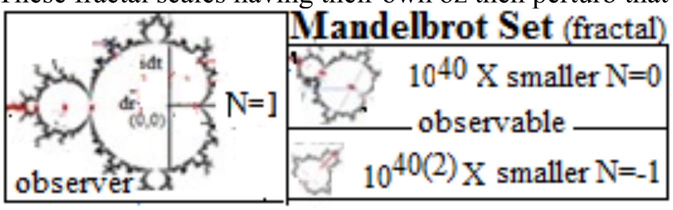
**Abstract** All mathematicians know that the limit of a Cauchy sequence of rational numbers is a Cauchy real#. So all we did here is show we postulated real#0 by using it to derive a associated rational Cauchy sequence. We did this because that same postulate (of rel#0) math *also* implies fundamental theoretical physics. Construct postulate0 from

1)*numbers* 1≡1+0 and **0≡**0X0,1≡1X1 as *symbol* **z=zz**: the *simplest* algebraic definition of **0**. So **2)Postulate** *real* number **0** *if* **z'=0** and **z'=1** plugged into z'=z'z'+C (**eq.1**) results in *some* C=0 constant(ie δC=0)

## Applications

•Plug in **z=0**=$z_o$=z' in **eq1.**To find ***all* C** substitute z' on left (**eq1**)into right z'z' repeatedly and get iteration $z_{N+1}=z_Nz_N$-C. Constraint **δC=0** requires we reject the Cs for which -δC=δ($z_{N+1}$-$z_Nz_N$) =δ(∞-∞)≠0. The Cs that are left over define the **Mandelbrot set** $C_M$=C with asubset C=0,fractal scales δz'=$10^{40N}$δz,N=integer These fractal scales having their own δz then perturb that **z=1** so put z=1+δz in **eq.1** to get δz+δzδz=C (3)




Define N≤0 as 'observable'fractal scales. Thus define the'observer'fractal scales as N≥1 implying |δz|>>1 Then solve equation 3 as a quadratic equation so $\delta z=(-1\pm\sqrt{1+4C})/2$≡dr+idt if C≤ -¼ (complex) (4) Note the Mandelbrot set iteration (ie., $z_{N+1}=z_Nz_N$-C) for this δC=0 *extremum* C=-¼ is a rational number Cauchy sequence -¼, -3/16, -55/256, ..,**0** thereby proving our above postulated *real#0* math.We must also

•Plug in **z=1** in z'=1+δz in **eq1**, So **δC=0**= (eq1 implies eq3)=δ(δz+δzδz)=δδz(1)+δδz(δz)+(δz)δδz= (observer |δz|>>1) ≈δ(δzδz)=0=(plug in eq.4) =δ[(dr+idt)(dr+idt)] = δ[($dr^2$-$dt^2$)+i(drdt+dtdr)]=0 (5)
=2D δ[(Minkowski metric, c=1)+i(Clifford algebra→eq.7a)] (≡Dirac eq)

Factor real eq.5 δ($dr^2$-$dt^2$)=δ[(dr+dt)(dr-dt)] =0=[[δ(dr+dt)](dr-dt)]+[(dr+dt)[δ(dr-dt)]] =0 (6)
so -dr+dt=ds,-dr-dt=ds≡$ds_1$(→±**e**) Squaring&eq.5 gives circle.in e,v (dr,dt) 2nd,3rdquadrants (7)
& dr+dt=ds, dr-dt=ds, dr±dt=0, light cone (→ν,$\bar{\nu}$) in same (dr,dt) plane 1st,4thquadrants (8)
& dr+dt=0,dr-dt=0 so dr=dt=0 defines vacuum (while eq.4 derives space-time) (9)
Those quadrants give *positive* scalar drdt in eq.7 (if *not* vacuum) so imply the eq.5 *non* infinite extremum imaginary≡drdt+dtdr=0≡$\gamma^i dr\gamma^j dt+\gamma^j dt\gamma^i dr=(\gamma^i\gamma^j+\gamma^j\gamma^i)drdt$ so $(\gamma^i\gamma^j+\gamma^j\gamma^i)$=0, i≠j (from real eq5 $\gamma^i\gamma^i$=1) (7a)
Thus from eqs5,7a: $ds^2=dr^2-dt^2=(\gamma^r dr+i\gamma^t dt)^2$ Note how eq5 and $C_M$ just fall (pop) out of eq.1, amazing!

We square eqs.7 or 8 or 9 $ds_1^2$=(dr+dt)(dr+dt)=(-dr-dt)(-dr-dt =[$dr^2$+$dt^2$] +(drdt+dtdr) ≡$ds^2$+$ds_3$=$ds_1^2$. **Circle**=δz=$dse^{i\theta}$= $dse^{i(\Delta\theta+\theta_o)}$= $dse^{i((\cos\theta dr+\sin\theta dt)/(ds)+\theta_o)}$, $\theta_o$=45° min of $\delta ds^2$=0 given eq.7 constraint for N=0 δz' perturbation of eq5 flat space. We define k≡dr/ds, ω≡dt/ds, sinθ≡r, cosθ≡t. $dse^{i45°}$≡ds'.Take ordinary derivative dr (since flat space)

of 'Circle' $\frac{\partial\left(ds e'^{i\left(\frac{rdr}{ds}+\frac{tdt}{ds}\right)}\right)}{\partial r}=i\frac{dr}{ds}\delta z$ so $\frac{\partial\left(dse^{i(rk+wt)}\right)}{\partial r}=ik\delta z$, thus $k\delta z=-i\frac{\partial\delta z}{\partial r}$ (11).

•**Both z=0,z=1** together (in eq1. Use orthogonality to get (2D+2Dcurved space)). Thus (z=1)+(z=0)= ($dx_1$+i$dx_2$)+($dx_3$+i$dx_4$)≡dr+idt given $dr^2-dt^2=(\gamma^r dr+i\gamma^t dt)^2$ *if* $dr^2\equiv dx^2+dy^2+dz^2$ (3D orthogonality) so that $\gamma^r dr\equiv\gamma^x dx+\gamma^y dy+\gamma^z dz$, $\gamma^i\gamma^j+\gamma^j\gamma^i=0$, i≠j,$(\gamma^i)^2$=1, rewritten (**N=-1** eq.12 implies the covariant $\kappa_{ij}$ of eq.13,15) as $(\gamma^x\sqrt{\kappa_{xx}}dx+\gamma^y\sqrt{\kappa_{yy}}dy+\gamma^z\sqrt{\kappa_{zz}}dz+\gamma^t\sqrt{\kappa_{tt}}idt)^2=\kappa_{xx}dx^2+\kappa_{yy}dy^2+\kappa_{zz}dz^2-\kappa_{tt}dt^2=ds^2$. Multiply both sides by $\hbar^2/ds^2$ and $\delta z^2\equiv\psi^2$ use eq11 inside brackets( ) get 4D QM $\gamma^\mu(\sqrt{\kappa_{\mu\mu}})\partial\psi/\partial x_\mu=(\omega/c)\psi$≡Newpde for e,ν, $\kappa_{oo}=1-r_H/r$ =1/$\kappa_{rr}$, $r_H=e^2X10^{40N}/m$ (**N**=. -1,0,1.,). So **Postulate** 0→**Newpde**

•**Results:** of (merely plugging z'=0,z'=1 into eq.1) **postulate0** (1) backups: davidmaker.com
Newpde: **N**=0,stable $r=r_H$ composite(part II) 3e $2P_{3/2}$ is baryons(QCD not required), SM is the extreme of 4 e,v quadrant rotations. **N**=-1 is GR. Expansion stage of **N**=1 scale $\delta z'=\delta z e^{iwt}$ Dirac eq zitterbewegung oscillation is the cosmological expansion, **N**=0 the 3rd order Taylor expansion component(1) of $\sqrt{\kappa_{rr}}$ gets the anomalous gyromagnetic ratio so don't need the renormalization infinities. So we get the physics here
Math: Note the implied z=zz+C iteration (required to prove postulate real 0 if $z_o$=z=0) numbers possibly are larger so don't have to be postulated. So we can merely *list* 1+1≡2, etc (*defined* to be a+b=c) with the symbolic rules defined (eg.,ring-field def. like a+b=b+a). with no new axioms.
Thus (with the math&physics) we understand *everything* (eg GR, cosmology, QM,e,*v* SM, baryons, rel#). So the *simplest idea imaginable* 0 implies all *fundamental math-physics*. no more, no less(eg simply 4D)
•**Conclusion:** So by merely (plugging 0,1 into eq.1) **postulating 0**, out pops the universe, BOOM! easily the most important discovery ever made or that will ever be made again. We finally figured it out

Reminder:
For example **by postulating** 0 we derive the Newpde (above) and **so the electron** e (see sect., eq.11b).. Note also that 0 is not the same as the null set ∅ since 0 is a real number and ∅ isn't.

So when we postulate 0 we are also implicity postulating the real# nature of 0.

**Summary** This **Theory is** 0 The rest is a real **number** 0 **definition**

We need to define the algebra first and use it to write postulate0. So define **numbers** 1≡1+0, and 0≡0X0,1≡1X1 as symbol z=zz the simplest algebraic definition of **0**. **So**

**Theory Postulate** 0 — Real# 0 **definition**: if **z=1** and **z=0** (plugged) into z=zz+C **eq.1** gives some C=0 constant(ie δC=0)

Can't be more Occam than postulate(0). All the rest is 2 **applications**. So must

1) **plug z=0** into **eq.1** (given the implied z=zz+C eq1 iteration) to get the 2D (fractal) Mandelbrot set to prove postulate real 0. Iteration numbers might be bigger 1+1=2,1+2=3 etc.,with defined symbols a+b=c and algebra rules eg., a+b=b+a. So the postulate generates real#math without extra axioms.
2) **plug z=1** into **eq.1** and get 2D Dirac eq.
Both Mandelbrot and Dirac results together give 2+2=4D Newpde (plus some Copenhagen stuff)

**Solve the differential equation** (Newpde) to get the physical universe, no more, no less.
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**Conclusion**: Ultimate Occam's razor postulate(0) implies ultimate math-physics.