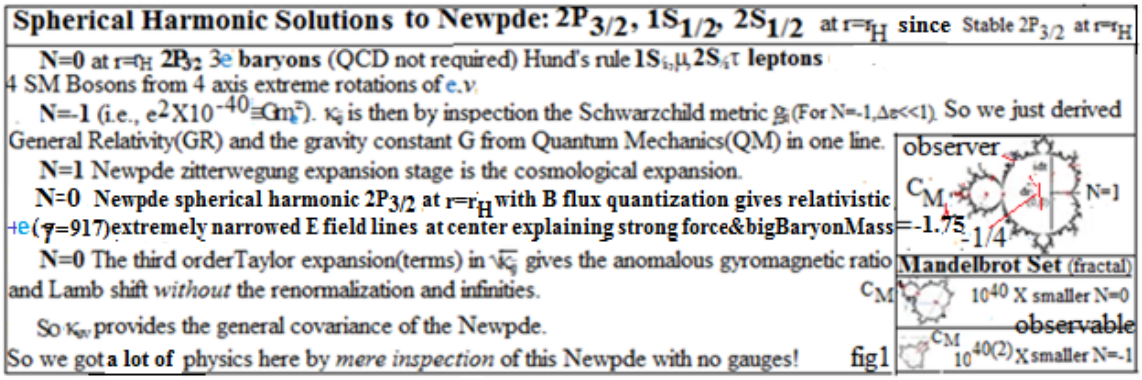
This Theory Is Zero

I know you desire a first principles, simplest assumption, origin of physics and mathematics.
You want to know it all!
Well, you can, just:
"postulate 0".

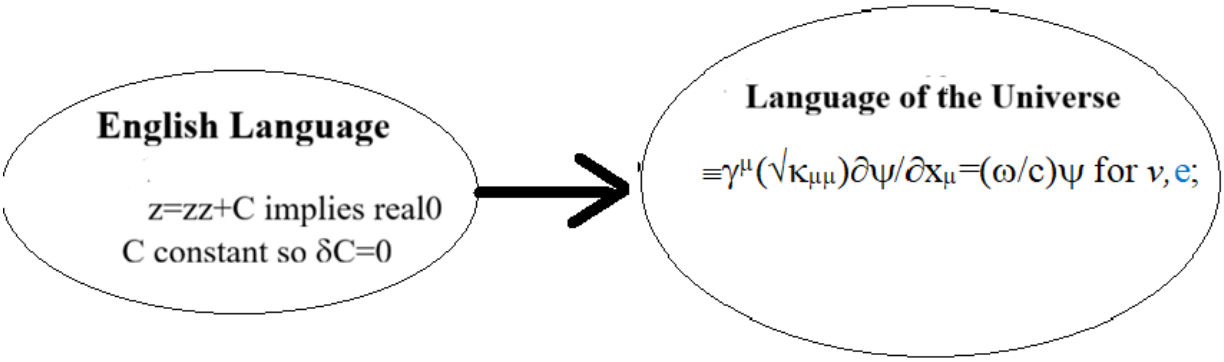
The Concept

The concept is simple because it is "simplicity" itself:
"**Ultimate Occam's razor** postulate(0) implies mathematics&Newpde"
given "0 is the simplest idea imaginable" (Hold that thought: 0, "I drew a blank".)
So this is "first principles", thus we have actually figured it out! We completely understand!!!
It works(fig1) because it is THE first principle! And it makes sense because all QM physicists know about *Lorentz* covariant(9) Dirac equation *real* eigenvalues and all mathematicians know that the limit of a Cauchy sequence of rational numbers is a Cauchy *real* number. So by merely **postulatingo** "z=zz+ C implies *real*#0"
(C constant so δC=0 and z=zz+C eq1 gets us the multiplicative properties of **0.** See M3) there then must be a rational Cauchy *sequence* with limit 0 that then doubles as an *iteration* of eq1 in δC=0 that thereby gives the (fractal) Mandelbrot set. Also plugging eq1 directly into δC=0 gives the Dirac eq. and so fractal (scales 10^{40N}XCM$_{N=0}$, fig1) *real* eigenvalues of a *generally* covariant generalization of the Dirac equation(Newpde) that does not require gauges, clearly a major discovery as shown in fig1.

Newpde$\equiv\gamma^{\mu}(\sqrt{\kappa_{\mu\mu}})\partial\psi/\partial x_{\mu}=(\omega/c)\psi$ for ν,e; $\kappa_{00}=e^{i(2\Delta\varepsilon/(1-2\varepsilon))}-r_H/r$, $\kappa_{rr}=1/(1+2\Delta\varepsilon-r_H/r)$; $r_H= C_M/\xi= e^2X10^{40N}/m$ (fractal jumps **N**=. -1,0,1.,) $\Delta\varepsilon\equiv m_e$, $\varepsilon=\mu$ are zero if no object B (appendix B, C,fig2



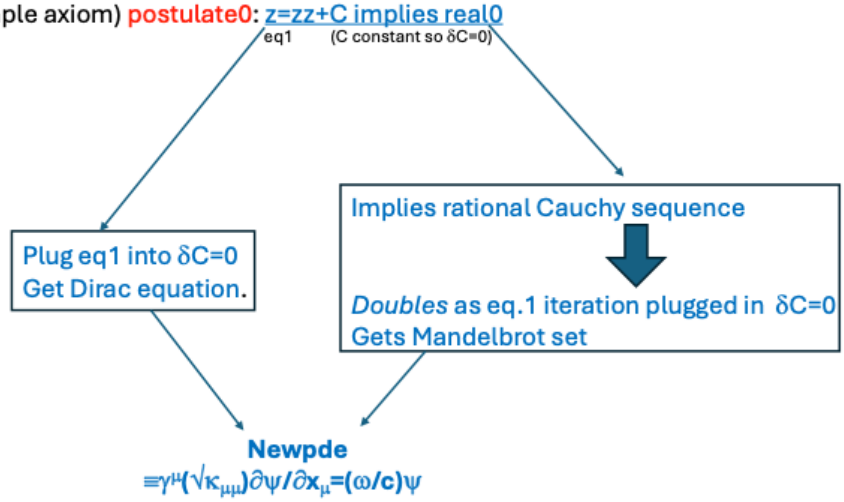
Conclusion: So by merely *postulating* **0**, out pops the whole universe, no more, no less, BOOM! easily the most important discovery ever made or that will ever be made again.



Concept: Ultimate Occam's Razor(postulate0) → math&Newpde

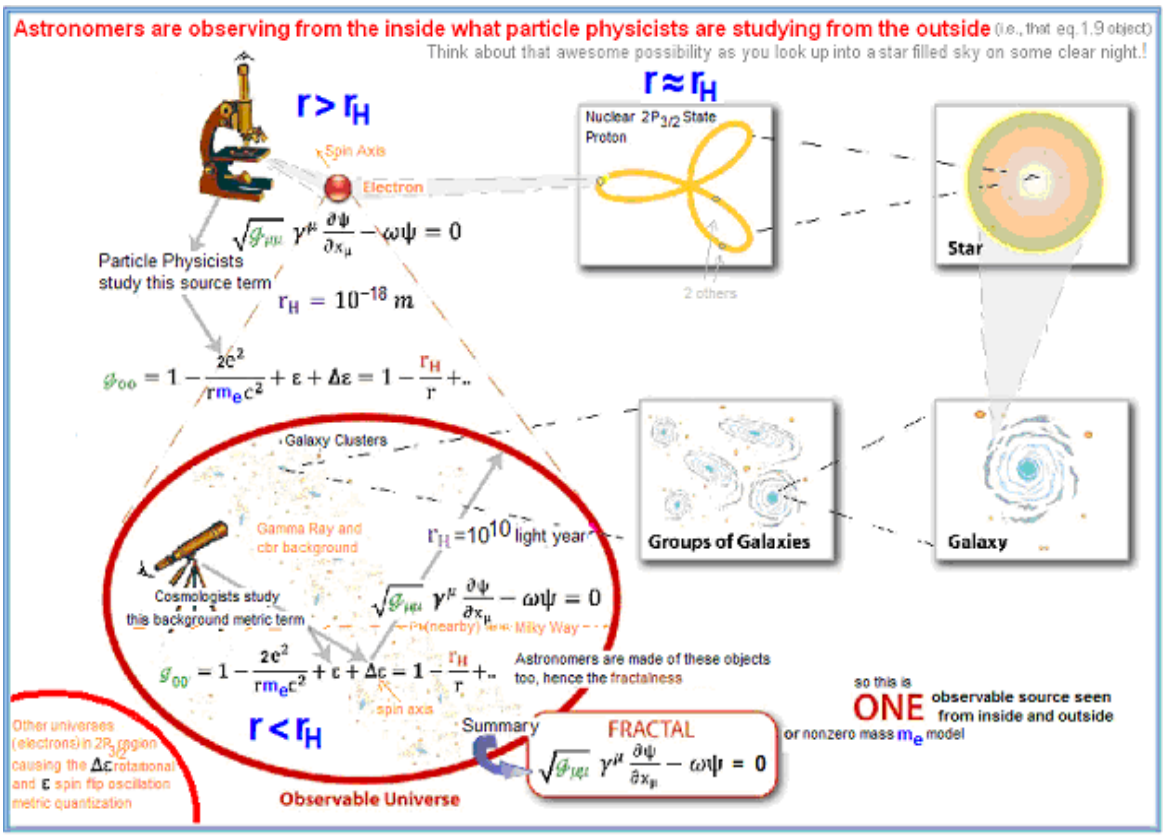
Origin of mathematics:

List#s-define symbols and (*single* simple axiom) postulate0: z=zz+C implies real0



Origin of physics:

The Mandelbrot set fractal scale jumps ($10^{40N}XC_M$, N integer in Newpde) of fig1 implies that by increasing the scale by $10^{40}X$ we are right back to where we started!



Object B Object A Nearby objectC fig2

Backups: Attachment and davidmaker.com

This Theory Is Zero

Abstract: All QM physicists know about *Lorentz* covariant(9) Dirac equation *real* eigenvalues. All mathematicians know that the limit of a Cauchy sequence of rational numbers is a Cauchy *real* number. So here we simply **postulate0** "z=zz+C eq1 implies *real*#0" (C constant so δC=0, z=zz needed for the multiplicative properties* of 0.) implying a rational Cauchy *sequence* with limit 0 thereby doubling as an *iteration* of eq1 in δC=0 that gives the (fractal)Mandelbrot set. Also plugging eq1 directly into δC=0 gives the Dirac eq. and so fractal (scales10^{40N}XCM$_{N=0}$, fig1) *real* eigenvalues of a *generally* covariant generalization of the Dirac equation(Newpde) that does not require gauges, clearly a major discovery as shown in fig1.

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* Plugging 1≡1+0 consecutively into 1=1X1 thereby *defines* ring relation 1X0=0 and 0X0=0. So "list 1=1X1-**define** symbol **z=zz"** gives the ring *multiplicative properties of **0*** such as 1X**0**=0 so with **+C** needed for the *addition* of constants (so δC=0) in the ring-field such as that 1=1+**0** The rest of "list number-***define*** symbol" replacement of ring-field axioms with single simple axiom postulateo is in appendix M3.

Summary: So **postulate0** (ie "z=zz+C eq1 implies *real*#0") also derives math including δC. So can plug z=1+δz into eq1 and get δz+δzδz=C (3) so that $\frac{-1\pm\sqrt{1^2+4C}}{2}$=δz≡dr±**i**dt (4) for C<-¼.Thus C is complex. But the definition of real0 ≡z_o implies that Cauchy sequence "iteration" so requires

I **Plug**ging the **eq1** rel *iteration* (z_{N+1}-$z_N z_N$=C) into **δC=0** implying δC=δ(z_{N+1}-$z_N z_N$)=δ(∞-∞)≠0 for some C. The Cs that result *instead* in finite z_∞s (so δC=0) define the **Mandelbrot set** in fig1 whose lemniscate continuity (11) along dr≈dR is required by the derivative in δC≡ (∂C/∂R)dR=0 =dC=d$C_M 10^{xN}$with its max extremum scale jump xN at C_M=-1.75 where the largest x≈40, fig.9. Eg.for huge Nth fractal scale |δz| >>**1**: AppA,fig1.So extreme -¼,-1.75 solve δC=0 so are the only zoom pts in: http://www.youtube.com/watc h?v=0jGaio87u3A implying also our rational Cauchy sequence iteration is thereby z_{N+1}-$z_N z_N$ =C= -¼,-3/16, -55/256 ,..**0**. So **0** is a real number (eq M1)

II **Plug**ging **eq1** directly **into δC=0** is also required. So given eq1 and thus equations 3,4 δC=δ(δz+δzδz)=δδz(1)+2(δδz)δz≈δ(δzδz) =δ((dr+idt)^2) =δ[(dr^2-dt^2)+ i(drdt+dtdr)] =**0** = (5) Minkowski metric +Clifford algebra≡**Dirac equation** (See eq7a γ^μ derivation from eq5.). But (N=0, 2D) δδz1 must be small but not zero so it *automatically* provides 2 extra degrees of freedom for the (N=1, 2D) independent Dirac dr implying 2D Dirac+2D Mandelbrot=4D Dirac **Newpde**≡$\gamma^\mu(\sqrt{\kappa_{\mu\mu}})\partial\psi/\partial x_\mu=(\omega/c)\psi$ for *v*,e; $\kappa_{00}=e^{i(2\Delta\varepsilon/(1-2\varepsilon))}$-$r_H$/r, κ_{rr}=1/(1+2Δε-r_H/r); r_H= C_M/ξ= $e^2 X 10^{40N}$/m (fractal jumps **N**=. -1,0,1.,) Δε≡m_e, ε=μ are zero if no object B (appendix B, C,fig2

Questions answered:

Note the 'postulate(0)→Newpde' idea answers the most important questions that the mainstream doesn't even ask!!!! (davidmaker.com for backup.) Like:

1) What is the origin of mathematics? (that physics requires)
Answer: list numbers-*define symbols* and (single simple *axiom*) postulate0:z=zz+C implies real**0**
(C constant so δC=0. z=zz+C eq1 needed for multiplicative properties of 0. To do this we simply have the numbers *define* symbols instead of connecting them with axioms. This replaces the many field-ring axioms with one simple axiom(0) so makes our derivation 'first principles'.

2) Where does the Mandelbrot set come from?
Answer: That real (0) implies a rational Cauchy sequence doubling here as a (thereby required) iteration of eq.1 in δC=0 generating the Mandelbrot set.

3) Where does special relativity and the Dirac equation come from?
Answer: equation 5 (resulting from plugging eq1 into δC=0, also required)

4) Where does the vacuum come from?
Answer: eq.9, One of the eq6 (ie dr=dt, dt=-dt, so: dt=dr=0) factors of real eq5.

5) What is the origin of the complex numbers and space-time?
Answer: eq1 is a quadratic equation resulting in eq.4 giving complex numbers (negative under the discriminant sqrt sign) dr+i**1**dt=ds which is also **the origin of space-time** dr,dt.

6) Why is the speed of light c constant?
Answer: In eq4 the above natural unit **1**=c=dr/dt is always a coefficient 1

7) Where does charge come from?
Answer: Charge e^2= CM =-1.75 (Fractal Mandelbrot set CM extremum comes from plugging *iteration* of eq1 into δC=0, Then plug eq.12 into eq16 getting C_M/m=r_H=e^2/m charge/mass ratio

8) Where does the cosmological oscillation come from? (We are in the expansion stage.)
Answer: **Newpde** zitterbewegung oscillation on the N=1 fractal scale *explaining cosmology*!!!

9) Where does general relativity (GR) come from?
Answer: The Newpde κ_{ij} for N=-1 fractal scale(top of fig2).

10) Where does quantum mechanics (QM)come from?
Answer: Invariance of eq5 *circle* and so eq11 QM operator formalism. Also the 3rd order Taylor expansion term of $\sqrt{\kappa_{ij}}$ replaces renormalization(appendix B).

11) Where does the strong force come from?

Answer: Newpde half integer spherical harmonic $2P_{3/2}$ at $r=r_H$ with B flux quantization gives ultrarelativistic +e s (γ=917 explaining large baryon mass) so extremely narrowed E field lines at center hence a huge force there (partII, davidmaker.com. QCD and gluons are not required.)

12) Why does the (SM core of modern physics) idea ($SU(2)XU(1)_L$) feature complex numbers?

Answer: SU(2) is rotation in the 2D complex plane, so from eq.4. U(1) is CM (see C9). L left handedness from Newpde $e+v=G_{oo}=0$ so in this same 2D uniform space-time (appendix C8).

13) Where does the weak force component of the SM come from?

Answer: We generate the Fermi G_F from object C field tensor(appendix C7)Newpde solution

14) Is there dark matter?

Answer: No. These quantized gravity anomalies (they use for evidence) arise from the fractal nature of space-time instead. So, since there is quantization on the subatomic scale there is metric quantization on the cosmological scale. $g_{oo}=\kappa_{oo}$ is the fractal scale bridging (N and N-1) condition giving the metric quantization math (See end of appendix B and partIII davidmaker.com).

15) How does the universe work?

Answer: Postulate0.

16) Where does gravity come from?

Answer: From **N=-1.** See figure 2.So $e^2 10^{40(-1)}=Gm_e^2$ solve for G. κ_{ij} for N=-1 with this G are the Schwarzschild metric. Thus we derived gravity from merely substituting N=-1 into the Newpde.

17) Where does the neutrino come from?

Answer: It comes out of eq.8 (in the context of the New pde resultant Dirac eq.20).

18) Where does the neutrino mass come from?

Answer:$E_e+\sigma^* p_\nu=G_{oo}\neq 0$ non uniform field(C8) . Dirac $+m=G_{oo}$ for matter neutrino, -m for antineutrino. Note from appendix C8 this m depends on the size of the nonuniform G_{oo}.

19) Why is there more matter than antimatter?

There isn't. Our 2P3/2 at r=rH half integer spherical harmonics has two positrons and one electron in the proton and one orbiting electron making up hydrogen the most common element. So they are in equal amounts.

20) What is the pion field?

Answer: That virtual creation-annhilation process inside r_H(center -e infrequently annihilates one of the positrons +e) changing the B field there causing a Faraday law emf *outside* giving the eq. 9.22 zpe pions nonzero motion energy. This explains the Yukawa force pion cloud.

21) Why is the proton m_p heavy relative to the electron m_e?

Answer: The $2P_{3/2}$ two positrons at $r=r_H$ move at ultrarelativistic speeds(γ=917) because of B field flux quantization. $\Phi = BA = \frac{\mu_0 i}{2r_H}(\pi r_H^2) = \frac{\mu_0}{2r_H}\left(\frac{e}{\left(\frac{2\pi r_H}{\gamma c}\right)}\right)(\pi r_H^2) = \Phi_0 N = 3\Phi_0 = \frac{h}{e}3$

B inside equals $\sim 10^{12}T = \mu_o i/2r_H$ ($i=e/t$, $c=2\pi r_H/\gamma t$). partII. Solve for γ. Get 917. So $2X917m_e=m_p$. Meisner effect zpe (zpe pions,eq9.22) so small B *outside*. The two positron motion also implies ortho and par states (from the Clebch Gordon coefficients).

22) What are magneto stars?

Answer: The force of a supernova implosion squishes out these Meisner effect zpe (pions,eq.9.22) so we see the bare $10^{12}T$= B proton field. As the neutron star expands(in months) the zpe returns rapidly(so fast radio burst)

23) What is the deuteron?

Answer: Two 2P3/2 (protons) with an electron in between at r_H. Can compute its binding energy= $2e^2/r_H$ The neutron is half a deuteron: So $2P_{3/2}$ with electron. It's extra mass is from $m_pc^2+e^2/r_H+m_ec^2$.

24) Where do the 4 SM Bosons come from?

Answer: The Mandelbrot set perturbations in eq16 are the same as rotations on that e,ν plane given by eqs7-8. The 4 axis' are max extreme of $\delta(dr+dt)=0,\delta ds^2=0$ just as 45°is min. One axis rotation is just what we have but two axis' rotations are new (appendix) There are 4 of them giving the 4 SM bosons -W,+W,Z,γ thereby deriving the Standard Model of Particle Physics

25 Why does the photon have no mass?

Answer: Uniform space-time neutrinos have no mass either (eq8 and $E_e+\sigma*p_\nu=G_{oo}=0$) but obtain -m,+m mass in a nonuniform gravity(C8,$G_{00}\neq 0$). In the quadrant IV to I rotation(giving Maxwell's eqs.(C4), Lorentz force and so the γ) the +m quadrant I and -m quadrant IV neutrinos ms cancel out leaving the photon γ with no rest mass.

26) Why is the neutrino left handed?

Answer: In uniform space-time $E_e+\sigma*p_\nu=0$ so $E_e=-\sigma*p_\nu$ with the negative sign meaning left handed given positive E_e (appendix C8)

27 Why do W,Z,t,H have large masses m?

Answer: Recall $2P_{3/2}$, $2P_{1/2}$ at $r=r_H$ constrains the two positron ortho-para states. In above orbit plane Para state on z axis($2P_{1/2}$) the Compton wavelength λ is shrunk (Fitzgerald contraction) by γ=917X, so huge $m=h/c\lambda$. Muon inside this r_H μ motion(eq.25) creates another muon μ so 2μ (appendix C5 and partII)

Inside r_H Para states (from top, X917, part2)

Muon shrink: $917(\varepsilon/(1\pm\varepsilon))$ weak interaction.

$917(\varepsilon/(1+\varepsilon))= Z_0$, J=1, 80 Gev e-e rotation so 0 charge Appendix C5

$917(\varepsilon/(1-\varepsilon))=$ W±,J=1, 91 Gev; e-ν rotation so charged with ν decay

2 Muon shrink: $917(2\varepsilon/(1\pm 2\varepsilon))$ **the fundamental para state**

$917(2\varepsilon/(1+2\varepsilon))$=t, J=1/2, 173Gev. So the top is two para parallel μ,added e baryonic

$917(2\varepsilon/(1-2\varepsilon))$=207GeV. Added e makes it baryonic

Outside Para state

917π =H, 125Gev. H is merely a para parallel π, outside zpe for the para solutions

These large (917X) masses solve the hierarchy problem.

Ortho States (from side, X2, eq.7.1)

The three ortho states are Ξ_s,Ξ_c,Ξ_b.with Frobenius series multiplet perturbations of these ortho states (PartII, Chs8-10). Proton is the ground state for the s Frobenius series solutions.

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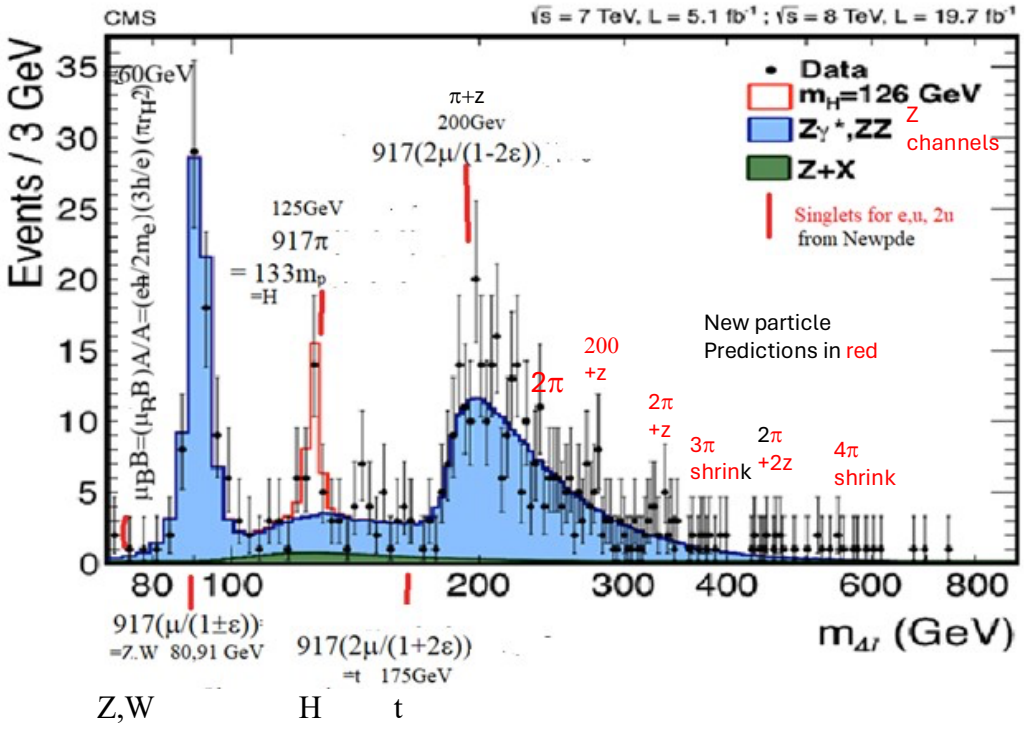
Note these para γ=917X, tiny λ, so huge $m=h/c\lambda$, solve the hierarchy problem and explain every part of the p-p collision data curve from the (huge) CMS detector at LHC!



This theory is falsifiable- testable. So here are some predictions of (hopefully) future experiments and astronomical observations:

Predictions

1) In **50 years the new muon** gyromagnetic ratio* will be **gy=1165932249** (1 part in 10^{-5}. The present one is 116592059) with the muon mass thereby going from $1.883531627X10^{-28}$kg to $1.883531608X10^{-28}$kg in that same time period. It is a thousand times more accurate to measure this mass change by measuring the g_y change instead since these g_y experiments are so accurate* (sect A3 of part1, davidmaker.com).

2) The electron has a radius of about $r_H \sim 10^{-18}$ m implying that the **proton-proton scattering cross-section will peak at 21Tev** with a peak at 7Tev for single electron-electron scattering(partII). Need that new CERN accelerator to confirm this.

3) **cosωt universe expansion** and **contraction** ($r=r_o(1+\cos(\omega t-\pi))$) with clocks dt' running fast for distant observers ($dt'^2=(1-r_H/r)dt^2$) implying a universe much older than the nominal 13by. (cosωt from newpde zitterbewegung $e^{i\omega t}$=**cosωt**+isinωt). The DES-DES-CBR measurements imply the possibility of a cosωt oscillation already eg.,."acceleration slowing" so big crunch? Much older universe implied by mature galaxies and black holes at 200MY. Selfsimilar Dirac spin from excess of galaxies spinning one way.

4) **$F=(Adv/dt)/v^2$ pairing interaction force** for superconductors (appendix C4), thereby explaining them (without using those adhoc Lagrangian densities, eg., BCS.).
Copper oxide &Graphene SC 's already confirm this. Just show that in a future publication I guess.

5) The **neutrino mass** is not fixed, **varies with gravitational field gradients**. (In fact they have yet to determine its mass, appendix C8)
The 3 Neutrino's in the sun have a different mass than these neutrinos here. It is possible to experimentally confirm this too by observing the neutrino oscillations at different locations.

6) Wave particle duality comes from that 45° angle of the electron on that e,*v* graph (sect.IIIC) where C noise position uncertainty is largest (wide slit) with ds^2 circle always wave (eq C1) then C=0 (narrow slit) gives only the wave: so wide slit particle (photoelectric effect), narrow slit wave, airy diffraction pattern hence wave -particle duality. This has already been verified experimentally.
7) There is no dark matter. That anomalistic (Zwicky,Rubin) gravity is a metric quantization phenomena. Just set $g_{oo}=\kappa_{oo}$ to get the mathematics (a fractal scale bridging condition) deriving the whole shebang (v~N100km/sec halos, N integer). Can confirm this with *careful* asymptotic rotational velocity measurements of nearby galaxies. Actually, I already have this data (partIII davidmaker.com). Gaia did it for our own.

8) So there should also be a 2pion shrink 917(2π) explaining the asymmetry of that part of the CMS curve peaked at 200Gev. A 2pion shrink is near 250Gev with the usual 3,4 pion shrinks etc extending that 200Gev asymptote out to 400Gev. For proton-proton LHC collisions, there is net charge, so neutral particle counts are smaller (eg u Z_o=80Gev; 2u t_o=173GeV,1π H=135Gev 2pion charged at 280GeV. W,Z Proca eq.(spin 1=J)W has *v* in the rotation so accompanied by *v* in decays. The min energy state for 2u gives 1-1=0=S, Pions=π Klein Gordon field equation 9.22 for spin0 0-0=0=S.

*From appendix A: (1st prediction above)

*Muon mass changes so its gyromagnetic ratio changes with time**.**
A1 N=2 observer sees that we see: Comoving Interior Frame
Recall N>0≡observer. Here we find what that N=2 fractal scale observer sees what we see if $\sin\mu\to\sinh\mu$ for $r>r_H$ going to $r<r_H$ in $E=1/\sqrt{\kappa_{oo}}=1/\sqrt{(1-r_H/r)}$ since the E in $\delta z=e^{iEt}\equiv e^{i\mu}$ and so μ then becomes imaginary. Recall limit R_{ij} as $r\to0$ is the source, where gravity creates gravity in the Einstein equations which becomes the modulation of the DeSitter ball. (3.2).
$R_{22}=e^{-\lambda}[1+\frac{1}{2}\, r(\mu'-\nu')]-1$ with $\mu=\nu$ (spherical symmetry) and $\mu'=-\nu'$. So as $r\to0$, $\mathrm{Im}R_{22}=$.
$\mathrm{Im}(e^{\mu}-1)=\mu+..=\sin\mu=\mu+..$for outside r_H imaginary μ for small r (at the source) so $\sin\mu$ becomes a gravitational source (gravity itself can create gravity as a feedback mechanism). The N=2 observer then multiplies by i iR_{22}, $-\sin\mu$ and μ to get $R_{22}=-\sinh\mu$ to see what the N=2 observer sees that we see inside r_H so:
$R_{22}=e^{-\nu}[1+\frac{1}{2}\, r(\mu'-\nu')]-1=-\sinh\nu=(-(e^{\nu}-e^{-\nu})/2)$, $\nu'=-\mu'$ so
$e^{-\mu}[-r(\mu')]=-\sinh\mu-e^{-\mu}+1=(-(-e^{-\mu}+e^{\mu})/2)-e^{-\mu}+1=(-(e^{-\mu}+e^{\mu})/2)+1=-\cosh\mu+1$. So given $\nu'=-\mu'$
$e^{-\nu}[-r(\mu')]=1-\cosh\mu$. Thus
$e^{-\mu}r(d\mu/dr)]=1-\cosh\mu$
This can be rewritten as: $e^{\mu}d\mu/(1-\cosh\mu)=dr/r$ (A2)
The integration is from $\xi_1=\mu=\varepsilon=1$ to the present day mass of the muon= .06 (X tauon mass).
Integrating equation A1 from $\varepsilon=1$ to the present ε value we then get:
$\ln(r_{M+1}/r_{bb})+2=[1/(e^{\mu}-1)-\ln[e^{\mu}-1]]2$ (A3)

the equation that gives the comoving observer time evolution of the universe. The equation works near the min of the sinusoidal oscillation where we are slightly inside r_H.

The radial component $r = r_{M+1}$ in A3 is still a function of that r_{bb} mercuron radius

Also the $\kappa_{oo}=1-r^2/r_H^2$ in A3 (instead of the external observer $\kappa_{oo}=1-r_H/r$) in $E=1/\sqrt{\kappa_{oo}}$ in looking outward (internal observer) at the cosmological oscillation from the inside ($r<r_H$) implies that higher mass for N=2 fractal scale so smaller wavelength and larger energy so larger effect. So metric jumps wirh longer the wavelength on our scale imply higher energy cosmological effects that N=2 sees we see si we see it... So on N=1 fractal scale small wavelength cosmological oscillations (eg., object C $\Delta\varepsilon$ Period=2.5My) have much smaller effects than the larger wavelength oscillations (eg., ε Period=270My).

g factor=g= e/2m and $w=gB=2\pi f$ with f the Larmor frequency which is what you use to measure the g factor(like in MRI)

The anomalous gyromagnetic ratio gy=g-2.

Note if the mass is decreasing then gy (and the g factor) goes up as well.

The difference in gy between 2023 (FermiLab) and 1974 (CERN) is 116592059[22]-11659100[10] =1 part in 10^5 increase which translates to 1 part in 10^8 increase in g since g is about 2000X larger than gy. Note g is increasing corresponding to a decreasing mass m in g=e/2m, by about 1 part in 10^8 over 50 years so about 1 part in 10^{10} over 1 year, our predicted value.

Note the sine wave has a period of 10trillion years and we are now at 370billion years, near $\theta=-\pi/2$ in $r=r_o\sin\theta$ where the upswing is occurring and so accelerating expansion is occurring. This is where we start out at in the sect.A3 derivation. Since the metric is inside $r<r_H$ it is also a source as we see in later section 5.4.

So in **50 years the new gy=1165932249** (1 part in 10^{-5}) with a muon mass going from $1.883531627X10^{-28}$kg to $2.883531608X10^{-28}$kg in that time period. It is a thousand times more accurate to measure this mass change by measuring the gy change instead since these gy experiments are so accurate.

Applications:

Solar Activity: The equatorial plasma tubes in the sun are a 1-2km/s transition metric quantization phenomena from the fractal scale bridging condition $g_{oo}=\kappa_{oo}$ (partIII) that comes from this Newpde.

$d^2|\sin\theta|/d\theta^2$ contribution to the MHD equation

We introduce **$d^2|\sin\theta|/d\theta^2$** =current i (in the plasma tubes around the sun) into the iXB term in the MHD equation. Note that **$d^2|\sin\theta|/d\theta^2$** gives a Dirac delta $\delta(0)$ spike in current (hence a solar flare) if $\theta\approx0$. It is highly suggestive that the absolute power signs in that equation imply tidal forces and so the $\sin\theta$ really is proportional to an added area A where $\theta\approx\omega t$, $A\approx\pi r^2$ for a tidal case $|\sin\theta|\propto A$. In that regard Faraday's law is a time derivative of the magnetic flux= BA (solar B≈.5Gauss) that gives an electrical current i in iR= *EMF*. This new current i then gives a second $B=\mu_0 i/2r$ that can be substituted into a 2nd Faraday's law derivative application thereby getting that **$d^2|\sin\theta|/d\theta^2$**. So all we need to know is this θ (from ephemerides) and plug it into **$d^2|\sin\theta|/d\theta^2$** to predict solar flares.

I wrote a fortran program that does this which in fact gives spectacular solar flare prediction results. Typical sample output of that fortran program:

Year	M	Day		Activity	
2024	5	11	1592	1.279467	
2024	5	12	1593	1.027791	
2024	5	13	1594	5.244556	
2024	5	14	1595	259.873957	largest solar flare in 20 years
2024	5	15	1596	134.050867	
2024	5	16	1597	57.827431	
2024	5	17	1598	22.114952	
2024	5	18	1599	7.541657	
2024	5	19	1600	2.251744	
2024	5	20	1601	0.949416	
2024	5	21	1602	2.495080	
2024	7	15	1657	3.450741	
2024	7	16	1658	1.945462	
2024	7	17	1659	0.544201	
2024	7	18	1660	10.003868	X10 backside
2024	7	19	1661	2.318304	
2024	7	20	1662	6.292453	
2024	7	21	1663	15.694147	
2024	7	22	1664	36.094783	
2024	7	23	1665	194.146306	X14 backside
2024	7	24	1666	2.541665	
2024	7	25	1667	9.993804	
2024	7	26	1668	0.661466	
2024	7	27	1669	0.750510	
2024	7	28	1670	3.325172	

The 4th column is generic "solar activity" which could also be EUV and CMEs. Note the associated dates could also be for backside activity (So unobserved by LOS GOES xray) and are second derivative $\mathbf{d^2|\sin\theta|/d\theta^2}$ change regions which then could also occur at upticks, which are more rare than these sharp peaks. Also large amplitude and times in this fortran program numerical output generates after shocks and growth in spot groups which persists over time. A lot of other extremely interesting solar phenomenology(eg neap suppression effects), besides just this flare prediction, comes out of this 4th column.

Propulsion N=1 scale and N=0 fractal scale for Kerr

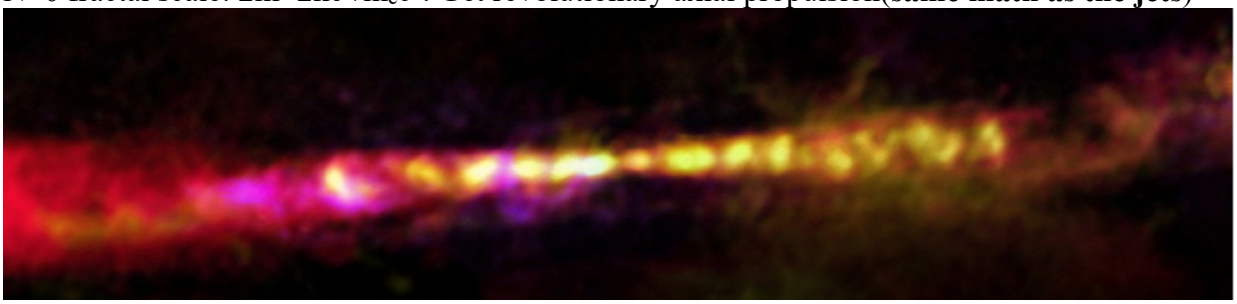
Fractal Selfsimilar Kerr Metric

The fractalness makes it so we can replace N=1 fractal scale $2GM/c^2$ with N=0 $2ke^2/(m_ec^2)$ (eq14)in the Kerr metric. This replacement worked for the Lamb shift (A17) so we expect it to work here as well. Solve as quadratic equation in dθ,θ=90°. Take time derivative to get $\frac{d^2z}{dt^2}$

$$ds^2 = \rho^2\left(\frac{dr^2}{\Delta} + d\theta^2\right) + (r^2 + a^2)sin^2\theta d\phi^2 - c^2dt^2 + \frac{2mr}{\rho^2}(asin\theta d\theta - cdt)^2$$

N=1 fractal scale: $2m=2GM/c^2$, get cosmological axial jets

N=0 fractal scale: $2m=2ke^2/m_ec^2$. Get revolutionary axial propulsion(**same math as the jets**)



Review of Kerr metric

Recall z=rcosθ still holds true exactly even in Boyer-Linquist coordinates.

a=J/Mc=Mvr/Mc=vr/c is a measure of specific angular momentum. Solve for dθ and then rdθ≈dz for θ≈90° using the quadratic formula and assume A≈0 in $Ad\theta^2 + Bd\theta + C = 0$

$C = -ds^2 + \frac{\rho^2}{\Delta}dr^2 + (r^2 + a^2)sin^2\theta d\phi^2 - c^2\left(1 - \frac{2mr}{\rho^2}\right)dt^2$, $B = \frac{4mr}{\rho^2}asin\theta dt$

$A = \rho^2 + \frac{4mr}{\rho^2}a^2sin^2\theta$. Thus assume A≈0 on the horizon and, ρ≈r, 2m/r=V/512

$d\theta = \frac{-B\pm\sqrt{B^2-4AC}}{2A} \approx \frac{B}{A} = \frac{\frac{2mr}{\rho^2}asin\theta cdt}{\rho^2+\frac{4mr}{\rho^2}a^2sin^2\theta} = \frac{\frac{2mr}{\rho^2}asin\theta cdt}{\rho^2\left(1+\frac{4mr}{\rho^4}a^2sin^2\theta\right)}$. Then multiply both sides by r/dt:

$\frac{rd\theta}{dt} = \frac{dz}{dt} = \frac{\frac{2mr^2}{\rho^2}asin\theta c}{\rho^2\left(1+\frac{4mr}{\rho^4}a^2sin^2\theta\right)} = \frac{r\frac{2m}{r}asin\theta c}{\rho^2\left(1+\frac{4mr}{\rho^4}a^2sin^2\theta\right)} = \frac{r\frac{V}{(512)}asin\theta c}{\rho^2\left(1+\frac{4mr}{\rho^4}a^2sin^2\theta\right)}$, Take a time derivative

giving $\frac{d^2z}{dt^2} = \frac{r\frac{dV/dt}{(512)}asin\theta c\rho^2\left(1+\frac{4mr}{\rho^4}a^2sin^2\theta\right) - r\frac{V}{(512)}asin\theta c\left(\frac{2dV/dt}{r\,(512)}a^2sin^2\theta\right)}{\left(\rho^2\left(1+\frac{4mr}{\rho^4}a^2sin^2\theta\right)\right)^2} \approx$

$\frac{-r\frac{V}{(512)}asin\theta c\left(\frac{2}{r}\frac{\frac{dV}{dt}}{(512)}a^2sin^2\theta\right)}{\left(\rho^2\left(1+\frac{4mr}{\rho^4}a^2sin^2\theta\right)\right)^2} \approx \frac{-\frac{2V}{(512)}a^3c\left(\frac{dV/dt}{(512)}\right)}{\left(\rho^2\left(1+\frac{2}{r^2}\frac{V}{(512)}a^2\right)\right)^2}$ The denominator becomes just

$\left(2\rho^2\left(\frac{4mr}{\rho^4}(a^2sin^2\theta) + 1\right)\right)^2$

which must be zero then for our infinite propulsion singularity $\infty=d^2z/dt^2$. For **N=1** fractal scale this gives the cosmological jets at the poles of rotating black holes. For **N=0** it implies a revolutionary propulsion method.

Kerr metric in Fractal scale N=0 $2GM/c^2 \rightarrow 2ke^2/(m_ec^2)=r_H=rV/512kV$

$\frac{-\frac{2V}{(512)}a^3c\left(\frac{dV/dt}{(512)}\right)}{\left(\rho^2\left(1+\frac{2}{r^2}\frac{V}{(512)}a^2\right)\right)^2} = \frac{-\frac{2V}{(512)}a^3c\left(\frac{dV/dt}{(512)}\right)}{\left(2\rho^2\left(\frac{1}{r^2}\frac{2NeNe}{m_ec^2}(a^2)+1\right)\right)^2} = \frac{-\frac{2V}{(512)}a^3c\left(\frac{dV/dt}{(512)}\right)}{\left(2\rho^2\left(\frac{2NV}{r^2}(a^2)+1\right)\right)^2}$

$a=(v/c)r=(10/(3X10^8))r=r3.3X10^{-8}$, $a^2=1.1X10^{-15}$. v=10 metric quantization ($v_N=[2\Delta\varepsilon^{N+1}/(2\varepsilon^N)]c$)

$Nke/r=N9X10^9 1.6X10^{-19}/2 = 512000$, $N= 7.1X10^{14}$. $2ke^2/(m_ec^2)=r_H$

$2(7.1X10^{14})1.1X10^{-15} = 1.562$

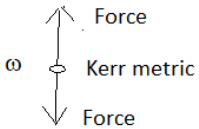
If r=2 then d^2z/dt^2=

$$\frac{-\frac{2V}{(512)}a^3c\left(\frac{dV/dt}{(512)}\right)}{\left(2r^2\left(\frac{4mr}{r^4}(a^2sin^2\theta)+1\right)\right)^2} = \frac{-\frac{2V}{(512)}a^3c\left(\frac{dV/dt}{(512)}\right)}{\left(2r^2(-1+1)\right)^2} = \infty = \frac{d^2z}{dt^2}$$

So rotate gas ring of radius=2m, V=512kV at 10m/sec and get z axis a= ∞.

N=1
Fractal Scale

Cosmological jets seen all over the universe



See examples below

N=0
Fractal Scale