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Gauss' Electrical Law

Gauss' Gravity Law

and they are *both* Unified Field Equations

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<u>I have previously shown that Gauss' electrical law</u> is a unified field equation. Since I have shown that <u>Newton's gravity equation is also a unified field equation</u>, we should be able to go from one to the other directly. No one has ever tried to do that, because one is thought to be an E/M field equation and the other is thought to be a gravitational field equation. But since they are both unified, we should be able to go directly from one to the other. I will show how to do that in the simplest way.

The key to this jump will be the constant ε_0 , which I have shown is actually gravity at the quantum level. Historically it has been unassigned or misassigned, which has made what I am about to do impossible until now. It has been called the electrical constant or the permittivity of free space, but neither assignment has been correct. It is easy to see that neither definition has any mechanical content. As the electrical constant, it is admittedly not assigned to anything specific. And as the permittivity of free space, it is assigned to something that cannot logically accept it. You cannot assign a real number to free space, because if you do that space is no longer either free or space. In two separate papers, I derived gravity at the quantum level by independent methods, finding the constant ε_0 both times. See that link and the one just below.

But we can't just substitute ε_0 for g directly, since the dimensions don't match. Fortunately, <u>I have already shown how to make the substitution</u>, and it is very simple. We just divide by c:

 $g = \varepsilon_0/c$

Our next step will be to show that Gauss' law for the electric field is equivalent to Gauss' law for gravity. To see this most easily, we will start from the spherical electrical field equations of Gauss:

 $\mathbf{E} = \mathbf{Q}/4\pi \mathbf{R}^2 \boldsymbol{\varepsilon}_0$

Now, to transfer from that unified field to the "gravitational" unified field, all you have to do is transfer one surface integral to the other. Since we are going from E to g, we just multiply through by g/E.

 $\oint g \cdot d\mathbf{A} = -4\pi \mathbf{G}\mathbf{M}$

That is Gauss' gravity equation. So I have just proved that the two equations are equivalent. They are just written in different symbols. This is new information, and extremely important, because although current theory knows that Gauss' electrical law can be connected to Coulomb's equation, and that Gauss' law for gravity can be connected to Newton's equation, it doesn't know that Gauss' two laws are equivalent as unified fields. It couldn't know that, because it has never seen that the electrical constant ε_0 is really a representation of the gravity field at the quantum level. Without that bit of information, it couldn't possibly do the math I just did.

Since it is known that Gauss' gravity equation is equivalent to Newton's gravity equation, I have just linked up Newton's equation with Maxwell's equations. I have shown how to go directly from one to the other. Since Gauss' electrical equation is known to be equivalent to Coulomb's equation, I have also linked up Coulomb's equation with Newton's equation. And when I say "linked up," it is clear I mean I have shown how to go from one to the other directly, with straight variable substitutions.

This is perfect proof that all these equations are unified, *since I just unified them here*. I showed how to go directly from one to the other, which is what they have been trying to do for centuries. That is what unification is.

But what does it mean? Well, for starters it means that all the attempts at unification by exotic and complex methods can stop, since I just proved all these historical equations were already unified. The mainstream was missing some very important pieces of the puzzle, so they have long been under the impression that unification must be difficult. It has certainly taken me several years, and a lot of housecleaning, so I won't say it was easy. But once done, we can see that the math is absurdly simple.

What else does it mean? It means that we have even more proof my nuclear theory is correct, since if we have gravity at the quantum level—existing all along in Maxwell's equations—we have to take another look at the strong force. Current theory has proceeded all along with the assumption that gravity is absent or negligible at the quantum level, but it isn't. Even without <u>my nuclear diagrams</u>, it is clear that all strong theory would have to be redone from the ground up. Fortunately, I have already done most of the hard work there, too, and I have replaced the strong force with charge channeling.