

Critical Mass (The End of General Relativity)

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Abstract

Having dispatched multiple, significant confirmations of General Relativity, it's time to find out what went wrong and, if possible, fix it. (Spoiler: It can't be fixed.)

Keywords: gravitational waves, LIGO, VIRGO, binary quasar, entanglement, integration, photon, charge, particle, quantum, Natural Mechanics, Cosmology, Relativity, space, field, Hafele-Keating, GPS, time dilation, bit, byte, flux, mass, electromagnetism, Maxwell

1.0 Structure Matters

In brief, the introduction to Einstein's paper on General Relativity begins with a bit of classical/Newtonian mechanics, dives into a long dissertation on electromagnetism (specifically, Maxwell's equations) and ends with a blurb about mass. After that, the equations and their explanations begin.

I am not qualified to analyse the equations but I can evaluate the arguments that lead up to them.

The volumes used in the introduction are telling:

- a small bit of classical/Newtonian mechanics
- a large amount of electromagnetism
- a mention of mass

The first bit is standard issue for any paper concerning mechanics. We can look past this bit, but note its volume is trivial.

The second aspect is the overwhelming majority of the introduction concerns electromagnetism. We cannot ignore electromagnetism's role in GR because it's *voluminous* (again, specifically, Maxwell's equations.).

The third mention is... curious. Why place an introduction to mass here? It appears to me that Einstein, in addition to justifying Maxwell's equations, was attempting to connect the electromagnetic force to the gravitational force by using mass as a bridge between them.

2.0 The Bridge

This "bridge" would be revolutionary because one of the goals in physics, if not THE goal, is to unify all of the forces into one. If mass is an *actual* bridge between the electromagnetic and gravitational forces, then GR would be a major step toward unifying those two forces.

The prerequisite for this connection is mass must either be a force unto itself or a property of a force because forces can only merge with other forces (and properties thereof). This works because mass, as described in GR, is an actual component of the gravitational force. And, this is also acceptable within electromagnetism because it also defines *apparent* mass in its own context. The distinction here is the contradiction. Mass cannot be both actual and apparent.

3.0 The Contradiction

In GR, mass is "actual".

In EM, mass is only "apparent".

In the context of physics, "actual" means "real or true". The forces are real/true – they exist. However, "apparent" means seemingly real or true but not necessarily so.

In GR, mass is necessarily actual because it is causal to the gravitational force. However, in electromagnetism (primarily concerned with the interactions of charges), mass is referred to as only apparent because it doesn't actually exist. Mass (inertial/resistance or resistance) is an effect not an actual material property of charges.

While GR remains hypothetical (speculative), the principles of electromagnetism have been demonstrated to be true many times over. This conflict is *massive* and only has one conclusion: Whatever contradicts what has been

demonstrated to be true is, itself, demonstrated to be false. Based upon its mischaracterization of mass, GR is demonstrated to be a false proposition.

The best argument against this conclusion is based upon the accuracy of GR. GR is heavily anchored in electromagnetism, therefore, its accuracy can be refined, still *appear* to be accurate but this doesn't mean GR, as a whole, is *actually* true.

The implication being, where this journey began, quantum gravity is not a “thing” because it cannot be a “thing”. And that's because GR is inconsistent with reality.

The connection between particle formation and apparent gravity can be observed in the context of a different model ^[1].

References

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