Negative Mass and the Gravity Sink

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Figure 1. Little Switzerland. Near Tainan, Republic of China.

Abstract

Gravity is a radially inflowing electric current described by the momentum equation A = J = ρv, where ρ is aether density and v is the aether field velocity given by the escape velocity formula.

The aether (or vitreous electricity) is space itself, and in the unstressed state its density will be zero. In the stretched state, such as in the case of aether flowing into a sink, it will become rarefied and its density will be less than zero. Conservation of aether energy in an irrotational sink of spherical symmetry tells us that the density of the aether in this case will be given by the formula ρ = −k/r.

As such we are left to conclude that negatively charged particles are actually rarefactions in the aether. This article will discuss the extent to which fine-grain centrifugal pressure inside atomic and molecular matter will undermine the tendency for gravitational mass to be negative.

Compressible Water

I. When water falls over the edge of a cliff (see figure 1 above [1]), it possesses a velocity gradient due to the conversion of potential energy into kinetic energy. This can only be possible if the water density is variable. While the water is still connected together in one piece, the water at the top of the cliff is moving slower than the water that has just fallen over the cliff.

From this we can conclude that inflowing water that is near to a sink must be less dense than inflowing water that is further back from the sink.

Compressible Aether

II. In the case of aether which is flowing into massive bodies, we must expect the same state of affairs to occur. The aether must get less dense as it gets closer to the sink.

We don't actually know what the aether is. But we know that it is dynamic, compressible and stretchable. In its unstressed state, the aether will have a density of zero. When the aether density is zero, it will possess neither tension nor pressure.

When the aether becomes stretched, it rarefies and possesses a tension. Its density will then be less than zero.

Conservation of Energy

III. Now let us use the symbol **v** to denote the inflow velocity of the aether into a gravity sink. The escape velocity equals the aether inflow velocity since it is the velocity needed to overcome aether inflow and hence escape from the gravitational field. [2]

The formula for escape velocity is,

$$v^2 = 2GM/r \qquad \textbf{(Escape Velocity)} \qquad \textbf{(1)}$$

For the purposes of conservation of energy, we wish the term ρv^2, which represents total aether energy at a point in the aether, to be inverse square law dependent. This will ensure that aether energy in a gravity sink will have zero divergence.

For this to be so, we need the aether density to obey the equation,

$$\rho = -k/r \qquad \textbf{(Aether Density)} \qquad \textbf{(2)}$$

where k is a constant and r is the distance from the source. This will be so if we equate aether density, aether tension, or aether pressure to potential energy and voltage. If we define aether density as charge, then it follows that mass is a measure of the amount of aether in a system.

Aether Momentum

IV. The electric current density of the gravitational field, **A** or **J**, will be represented by the momentum term $\rho\mathbf{v}$. It follows that since the divergence of ρv^2 is zero due to the inverse square law factor, then the divergence of **A** or **J** cannot also be zero. This reflects the fact that momentum is only conserved in pairs, such as when Newton's third law becomes involved in an interaction between two bodies. The so-called Coulomb gauge whereby div **A** = 0 should only be applied to solenoidal situations and not to radial electric currents.

$E = mc^2$

V. Consider a rotating electron-positron dipole in which the circumferential velocity of the particles is 1.4c. The total kinetic energy of this dipole will be $2mc^2$.

We can view this dipole hydrodynamically as an aether vortex that exists in the circular space enclosed by the mutually orbiting electron and positron. Due to the force of attraction, this region of aether will be in a state of tension and hence it will represent a rarefaction in the aether. A photon of light of energy $2mc^2$ represents a compression of aether, and if such a photon arrives at an electron-positron dipole, it can neutralize the tension and liberate the electron and the positron from each other's grip.

Centrifugal Congestion

VI. If a material body is composed of particles in static equilibrium, then it would follow that such a body would be considerably less dense than the surrounding aether since that body would be acting as a pure gravity sponge.

However, we know that atoms involve particles undergoing orbital motion, and as such, atomic and molecular matter must contain an abundance of fine-grain centrifugal aether pressure.

When this pressure is larger than normal, it has the effect of blocking the microscopic gravity sinks completely and we say that the body is vitreously charged. Cross country electric power transmission lines are often referred to as 'high tension cables'. It might actually be more appropriate to use the term 'high pressure cables' for these vitreously charged transmission lines.

When the centrifugal aether pressure inside matter is less than normal, the microscopic gravity sinks open wider and the inflow rate increases. This in turn increases the linear polarization of the surrounding electron-positron sea oppositely to that in the case of a vitreously charged body. We say that such a body with less than normal aether pressure is resinously charged. See 'The Four Kinds of Electric Charge' at,

http://www.wbabin.net/science/tombe26.pdf

Two resinously charged objects will repel each other due to fine-grain centrifugal pressure in the electron-positron sea. In the absence of the electric sea, they would attract each other. See 'Gravity Reversal and Atomic Bonding' at,

http://www.wbabin.net/science/tombe6.pdf

But is a resinously charged body a pure negative mass or is it buffered up to a state of positive mass by centrifugal congestion?

Positive Mass

VII. Starting at the top end of the scale, a body that is positively charged will be unstable because there will be a net repulsion between its constituent particles.

Next we look at vitreous charge. A vitreously charged body is a negatively charged body that possesses a higher than normal centrifugal aether pressure. This vitreous pressure will override the negative tension and we will have a net positive mass.

The standard of neutrality is a gravitationally charged body. The rebounds which occur between certain objects during collisions suggest that neutral objects possess positive mass.

The focus of attention now turns to resinously charged bodies. These bodies have had their aether pressure reduced to below the neutrality level. Nevertheless, they still contain a considerable amount of centrifugal aether congestion.

In fact if the mass of a body were to go below zero, it would collapse. Negative mass in effect corresponds to 'collapse' under Earnshaw's theorem [3] because the attractive forces will override the centrifugal repulsion forces.

We conclude that all laboratory materials possess positive mass and that issues to do with vitreous charge and resinous charge only involve slight variations in an overall positive mass. The electron in isolation is however negative mass, and one might therefore conclude that an electron constitutes anti-matter.

Regarding the electric sea (the luminiferous medium), we know that the interior of the electron-positron dipoles are negative. We also know that the entire inside of the double helix magnetic lines of force will be negative due to Coulomb tension. But the space between the lines of force will be positive due to centrifugal aether congestion. It is possible that the electric sea as a whole has a net zero mass which will take the form of an undulation of positive and negative mass in the shape of Faraday's lines of force.
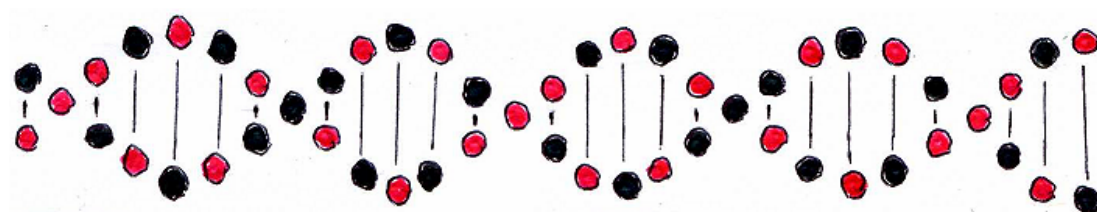
Conclusion

VIII. Consider a cubic mile of stuff that has got zero mass and zero charge. It possesses neither velocity nor acceleration, and neither pressure nor tension.

That stuff is the aether and the vitreous fluid of electricity. If we compress it, we obtain positive mass and vitreous charge, as well as

repulsion pressure. If we stretch it, we obtain negative mass and tension. The pressure and tension in turn lead to acceleration and velocity. That is the underlying basis of the potential quantities ψ and **A**.

So the aether in its disturbed state can account for all the parameters of classical mechanics and electromagnetism. Maxwell considered such an aether to be rendered into a state of tiny vortices in order to account for the magnetic field. In doing so, he became more aware of the need to introduce tiny particles, much smaller than the vortices themselves, in order to complete the picture.

Maxwell however, never equated these electrical particles with sources and sinks in the aether, and so his molecular vortices were left in an incomplete state. Maxwell was left with vortices surrounded by electrical particles which he believed to be acting as idle wheels. Maxwell was unable to formally connect these electrical particles with the aether itself.

References

[1] This sink,

 is to be found in the hills above the southern city of Tainan, Republic of China. It was built in the early 1960's by Japanese engineers to divert water from a river to a nearby reservoir.

A similar structure, built more than thirty years earlier, acts as an overflow sink at the Silent Valley reservoir in County Down, Northern Ireland.

[2] The connection between escape velocity and aether inflow velocity was suggested by Ian Montgomery and Prof. Reginald T. Cahill in Australia. Professor Cahill has written his own paper on gravity as an inflow mechanism. It can be viewed at,

http://redshift.vif.com/JournalFiles/V11NO1PDF/V11N1CA1.pdf

The idea of gravity as a converging sink can be traced back at least to O.G. Hilgenbergbackin in 1931, and probably even back to Isaac Newton himself.

[3] Earnshaw, S. On the nature of the molecular forces which regulate the constitution of the luminiferous ether. Trans. Camb. Phil. Soc., 7, pp97-112, 1842