

The Aether and the Electric Sea

(The Link between Gravity and Electromagnetism)

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Abstract. The aether alone cannot explain electromagnetism. In order to explain electromagnetism, we need to have a sea of aether vortices. In order to have a sea of aether vortices, we need to have sources and sinks in the sea. These sources and sinks are what we call electrical particles and it is the 'Electric Sea' of electrical particles that shapes the aether into vortices and causes the fundamental hydrodynamical aethereal forces to manifest themselves in the particular guise of electromagnetism.

The distinction between the aether and the electric sea, and the relationship between them has not been discussed since the time of James Clerk-Maxwell. This paper aims to clarify the relationship between the aether and the electric sea. The gyroscopic solenoidal alignment of the electric sea can reverse a mutually attractive gravitational/electrostatic force into a mutually repulsive electrostatic force. The gravitational and electrostatic forces primarily arise out of pure aether hydrodynamics.

Bernoulli's Sea of Aether Whirlpools

I. ET Whittaker [1] writes "All space, according to the young [John] Bernoulli, is permeated by a fluid Aether, containing an immense number of excessively small whirlpools. The elasticity which the Aether appears to possess, and in virtue of which it is able to transmit vibrations, is really due to the presence of these whirlpools; for, owing to centrifugal force, each whirlpool is continually striving to dilate, and so presses against the neighbouring whirlpools."

Bernoulli's aether theory would appear to be the starting point in Maxwell's 1861 paper 'On Physical Lines of Force' [2],

http://vacuum-physics.com/Maxwell/maxwell_oplf.pdf

The important thing to note is that the aether alone is not sufficient to explain electromagnetism. We need a sea of aether whirlpools.

Maxwell expanded upon Bernoulli's sea of whirlpools and pointed out that no such arrangement could be possible unless there were idle wheels between the vortices. Maxwell linked these idle wheels with the particles of electric current. Hence Maxwell's sea of whirlpools became a sea of electrical particles.

Lord Kelvin [3] says *"My suggestion is that the Aepinus' fluid consists of exceedingly minute equal and similar atoms, which I call electrions, much smaller than the atoms of ponderable matter; and that they permeate freely through the spaces occupied by these greater atoms and also freely through space not occupied by them."* See this web link,

<http://dbhs.wvusd.k12.ca.us/webdocs/Chem-History/Aepinus-Atomized.html>

It was suggested in 'The Double Helix Theory of the Magnetic Field',

<http://www.wbabin.net/science/tombe.pdf>

that Maxwell's idle wheels are electrons and positrons and that his molecular vortices should more accurately be replaced by rotating electron positron dipoles in which each electron is undergoing a mutual central force orbit with a positron. The axis of rotation of each electron positron dipole will be perpendicular to the line joining the electron to the positron. Aether emerging from the positron will cross over and sink into the electron. The rotation of the dipole will hence lead to an aethereal vortex being contained within it. These central force orbits will be non-Keplerian because they will also be subjected to the Lorentz force. The gyroscopic/Coriolis component of the Lorentz force $\mathbf{v} \times \mathbf{H}$ will cause a sea of these dipoles to align solenoidally in a twisted rope ladder fashion, with the electrons angularly phased above the positrons in the axial plane, rendering magnetic \mathbf{H} lines of force into helical springs.

The Aether and Mutual Attraction

II. Pure aether hydrodynamics can explain the fundamental force of electrostatics, in which sinks are mutually attractive and in which sources are mutually repulsive. See 'Gravitational Induction and the Gyroscopic Force',

<http://www.wbabin.net/science/tombe5.pdf>

Mutually attractive electrostatics is commonly known as gravity. It is a common mistake to assume that the aether also serves as the luminiferous medium. Nobody has ever produced the necessary elastic constants that would enable a wave speed to be calculated for disturbances in the pure aether.

The Electric Sea and Mutual Repulsion

III. The transverse elasticity that led Maxwell to the speed of light and caused him to state “ - - - *we can scarcely avoid the inference that light consists in the transverse undulations of the same medium which is the cause of electric and magnetic phenomena* - - - “ was based absolutely on the dielectric sea of his idle wheels. It was based on the self restoring elasticity of the electrical particles that surrounded his molecular vortices. See part III of his 1861 paper ‘On Physical Lines of Force’ [2].

We need the sea of electrical particles in order to explain the elastic tension associated with both electromagnetism and with cases of electrostatics in which like charges are mutually repulsive. It is a common mistake to try and explain both gravity and electromagnetism using a single medium. Any attempts to do so have foundered on the grounds of inability to account for why gravity is mutually attractive and why electromagnetism is mutually repulsive. We must clearly distinguish between the 'Aether' and the 'Electric Sea' albeit that the 'Electric Sea' is ultimately a sea of aether vortices.

The aether is the link between gravity and electromagnetism. The aether is the deep liquid medium of unknown substance that accounts for the fundamental forces. The electric sea shapes the aether into a sea of vortices. The electric sea can reverse the aethereal force of mutual attraction by a solenoidal arrangement of the vortices. In situations where mutual repulsion occurs either in magnetism or electrostatics, the lines of force emanating from the two bodies will spread outwards and away from each other. The Coriolis force will cause the vortices to align solenoidally and the centrifugal force acting in the equatorial plane of these vortices will cause a mutual repulsion to act laterally between the lines of force.

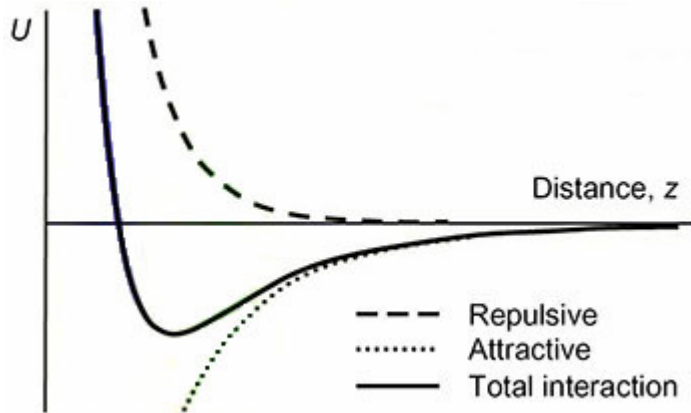
In the case of orbiting planetary bodies the gravitational field lines will spread out sideways between any two such bodies. The question of friction in space has often been used to undermine the idea of a particulate luminiferous medium. We can now see how the gravitational field lines that spread away from each other in the region between planetary bodies will align and polarize the electron positron dipoles in such a way as to invoke the hovercraft effect. The centrifugal force acting laterally between the radial gravitational field lines will create a repulsion and hence substantially reduce friction.

Electrostatics

IV. Electrostatics clearly sits on the fence between gravity and electromagnetism. Electrostatics can be a pure aether hydrodynamical phenomenon in which like negative charges mutually attract and in which like positive charges mutually repel. Gravitation is a particular manifestation of mutually attracting electrostatics.

Electrostatics can also be an elastic phenomena associated with polarization of the electric sea. In this case like charges become mutually repulsive. The reversal threshold and range is discussed in 'Gravity Reversal and Atomic Bonding',

We will have two forces both acting in opposite directions and each with a different drop off coefficient. The mutually repulsive force will drop off more steeply than the mutually attractive force. If the repulsive force dominates at close range, then a graph showing the two superimposed forces will take on a shape identical to that of the graph that demonstrates the bonding forces acting between atoms and molecules.



Let us use z to denote distance. Centrifugal repulsion will occur up to a certain range. The graph curve will begin in the positive (mutually repulsive) force zone. The curve will drop downwards, cross the z -axis and a reversal will occur. Beyond the reversal distance, the mutually attractive force will increase for a while as the separation distance increases, a maximum (negative) will then be reached and the mutually attractive force will taper down towards zero from the negative side.

The Rotationally Elastic Sponge

V. Bernoulli's sea of tiny aether vortices must act like a rotationally elastic sponge that absorbs all the large scale vorticity of Descartes' universe. The sea of tiny aether vortices is therefore what gives rise to Kepler's laws of planetary motion and to the law of conservation of energy.

References

[1] ET Whittaker, A History of the Theories of Aether and Electricity; The Classical Theories (London; New York, American Institute of Physics, 1987) p.6

[2] Clerk-Maxwell, J., "On Physical Lines of Force", Philosophical Magazine, Volume 21, (1861)

http://vacuum-physics.com/Maxwell/maxwell_oplf.pdf

[3] Aepinus Atomized, Lord Kelvin, Philosophical Magazine Vol 3, No. 15 (Sixth Series) March 1902, p.257ff. Communicated by the author. From the Jubilee Volume presented to Prof. Bosscha in November 1901.

[4] Dr.Menahem Simhony in Jerusalem has put forward a very compelling argument to suggest that space is pervaded by a dense medium of electrons and positrons. See,
<http://web.archive.org/web/20040606235138/www.word1.co.il/physics/mass.htm>

[5] Ian Montgomery and Peter Whan in Australia have proposed that a sea of electron positron couplets explains electromagnetic theory. Full details have not yet been published.

[6] Arden Barker (Monitek@aol.com) has advocated a sea of electron positron dipoles for the purposes of the propagation of electromagnetic radiation.

<http://members.aol.com/medusa1989/theatom.html>

[7] Dr. Allen Rothwarf wrote 'An Aether Model of the Universe' in 1998 in which he envisaged the aether to comprise of electrons and positrons. See,

<http://www.epola.co.uk/rothwarf/aethermodel.pdf>

His brother Dr. Frederick Rothwarf has recently extended this work in conjunction with Dr. Roy. See,

<http://arxiv.org/abs/astro-ph/0703280>