

Unified Force Field Theory (electromagnetic and gravitational fields)

Author: A. Chaykin
Moscow, Russia.

Abstract.

The entire space in the universe is filled with a single superfluid substance, subject to the Maxwell-Chaykin equations.

Introduction.

"There is only emptiness and atoms" - the ancient Greek Democritus said. Atom is an indivisible and the smallest particle of matter. What is simpler?

But what is emptiness?

This is what remains when all atoms are removed.

And what is left? Yes, anything. Whatever anyone can think of. The last delusional invention is the "dark matter" and the "dark energy".

Thales from Miletus (4th century BC) assumed that water is basic principle of everything. It is primitive, and then they came up with an ether. It sounds poetic, therefore, vague and indefinite. They replaced the ether with the word "vacuum", and it sounds more impressive. The vacuum was populated with ephemeral virtual particles, dug with wormholes and even foamed.

In the ancient times, there were thinkers, and now the mathematicians have took up the emptiness.

Therefore, we must go back and agree with Leibniz, who believed that there is no empty space, but everything is initially filled with a liquid substance. It is important to add that it is filled with superfluid liquid substance.

And what about Maxwell, who believed that his electromagnetic waves needed elastic ether?

Einstein altogether refused from the ether in itself.

Light (electromagnetic waves) is a stream of photons (particles), which, irrespective of the point of view in the empty space, always fly with the same speed with value "c". But his space - time are special, I call it as "rubber". The modern physicists and mathematicians think, it can stretch and bend, twist and loop. And in such multidimensional spaces they construct comprehensive theories of the world structure: unified field theories.

But from "nothing" (empty space), according to the ancient thinkers, you will get "nothing." No matter how hard you try, even using differential geometry and quantum properties of virtual spatial loops or strings.

A general theory cannot be built without a substance.

I accept, the model of a superfluid substance filling the entire space. And I explain electromagnetism by the flow of a superfluid liquid.

Electrical phenomena - by progressive (potential) flow.

Magnetic properties - by vortex (solenoidal) flow.

For this purpose it is necessary to reject the concept of a vortex electric field. And introduce the concept of displacement charges, which are created by time variables, by a magnetic field.

1. The main consequence of my recording, in Maxwell's equations, is the longitudinal (instead of transverse) electric component in the electromagnetic wave. This longitudinal component can be treated as a particle.

And the transverse (magnetic) one - as a true wave.

This is the dualism of light. It is absorbed as a particle (photoelectric effect), but it folds (interferes) as a wave.

2. My Poetting Vector creates a lateral stream of energy lost and because of this the light ages.

The Coulomb law for electric charges and Newton's law for gravitating masses are the same.

So why not apply electrodynamic laws to the gravitational field?

And that is exactly what I have done.

Having determined the potential of the gravitational field ϕ as a linear density ρ_L of tubular threads in the interaction of the gravitational charges produced by the superfluid liquid:

$$\phi = \sqrt{G_N} * \rho_L$$

$\vec{E}_{rp} = \text{grad } \phi = \sqrt{G} * \text{grad } \rho_L$ - we obtain the intensity of the gravitational field.

And then we apply Poisson equation:

$$\text{div } \vec{E}_{rp} = \sqrt{G} * \text{div grad } \rho_L = \sqrt{G} * \Delta \rho_L = 4\pi\rho$$

ρ - volumetric density of masses, $\Delta = \nabla * \nabla = \text{div} * \text{grad}$

Gravitational charge $q_{rp} = \sqrt{G} * m$, m - mass (in grams).

Gravitational current $J = q_{rp} * U$, U -velocity q_{rp}

Thus, the coefficient \sqrt{G} gives the same dimension to the gravitational mass similar to that of the electric charge

$$\left[\text{g} \frac{1}{2}, \text{cm} \frac{3}{2}, \text{сек}^{-1} \right].$$

And as a result, the intensities and currents of the gravitational charge have corresponding dimensions, as in electrodynamics.

Conclusion:

if gravity currents and gravitational displacement charges are taken into account, then there is no need to distort space and shift away from the Euclidean space to describe the gravitational field.

And so the gravitational field obeys the Maxwell-Chaykin equations.

As the Russian proverb says: "No need to distort the mirror, if the face is crooked."
And it is applicable to everything.

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