<u>UNIFIED THEORY OF FORCE FIELD</u> (<u>ELECTROMAGNETIC AND GRAVITATIONAL</u>).

Thales of Miletus (4TH century BC) considered the foundation of all-water.

Apostle Peter in the 2-nd letter stated: "...the heaven and earth standing out of water and by water ".

Leibniz imagined a space originally filled liquid matter, but then changed his mind and replaced them with invented liquid monads.

My name is Andrey Chaykin. I am a theoretical physicist (Russia) guess:

"There is a substance that fills the entire space. This substance is a superfluid liquid with a density of $\rho_{\rm H}$ and the speed V_H (H- in honor of the Gel'mgolca)".

$$\overrightarrow{V_H} = \overrightarrow{V_n} + \overrightarrow{V}_B,$$

where $\overrightarrow{V_n}$ is the velocity potential field,

rot $\overrightarrow{V_n} = \mathbf{0}$ $\overrightarrow{V_B}$ - vortex (solenoidal),

div
$$\overrightarrow{V_B} = 0$$

Accepted the postulate:

 $\vec{E} = \sqrt{\rho_H} \cdot \vec{V}_n$ - the electric field intensity

 $\vec{B} = \sqrt{\rho_H} \cdot \vec{V}_B$ - the magnetic field intensity.

The equation electrodynamics of the rewrite in the form:

div
$$\vec{E} = 4\pi\rho - \frac{1}{C} \cdot \frac{\partial |\vec{B}|}{\partial t}$$
,
rot $\vec{E} = 0$,
rot $\vec{B} = \frac{4\pi}{C} \cdot \vec{J} + \frac{1}{C} \cdot \frac{\partial \vec{E}}{\partial t}$,
div $\vec{B} = 0$
 $|\mathbf{B}|$ - the absolute value of the magnetic field.

1

From these corrected Maxwell's equations should be:

- 1. The electric field \vec{E} is always potentially.
- 2. An electromagnetic wave has a longitudinal component \vec{E} with properties of particles and a transverse component \vec{B} this is the essence of the wave.
- 3. The main flow of energy of electromagnetic radiation is directed at \vec{E} , and the Poynting vector $\vec{E} \times \vec{B}$ lateral flow is responsible for the divergence of the beam;
- 4. The equation Faraday's Electromagnetic induction is valid only for nonareas and in differential form does not make sense.
- 5. Accelerators type Bevatron, Foucault and other effects allegedly caused by the vortex field, supposedly caused by Vortex field \vec{E} , can be explained with the help of the so called me charge density displacement:

$$\boldsymbol{\rho}_{\mathrm{of}} = \frac{1}{\mathrm{C}} \cdot \frac{\partial |\vec{B}|}{\partial t}$$

6. The magnetic field is an independent entity and is not the effect of "second order" of the electric field.

The conclusion:

- 1. The carrier of the electromagnetic field is a superfluid fluid (it can be paired bosons neutrinos or something what we do not known);
- 2. The singular point (drain, source), have a electrical charge;
- 3. The property of superfluidity ensures the equality of inertial reference systems and invariance of charge;
- 4. The two-fluid model of substance (similar to the HeII (helium)) provides mutual reciprocal movement of two components with no apparent real flow throughout the liquid.

THE GRAVITATIONAL FIELD.

The gravitational field, initially, according to Newton and Guku etc. is the force field.

The trajectory of motion of gravitating masses should be perpendicular (normal) to the equipotential surfaces. These surfaces are determined by the distribution of other gravitating masses (charges) and currents (mechanical impulses).

Equate gravity with forces of inertia, with Coriolis forces, is forces unable to produce their own work, for the true physics is unacceptable.

Einstein bent the empty space and fitted curve metric space to a metric of the equipotential surfaces of gravitating masses for an explanation of gravitation.

Gravitating masses do not curve space but and untwist liquid substance between them (this is beneficial for the liquid). In superfluid substance, as in rotating He II (helium) formed tubular thread. The gradient of the linear density $\rho_{(L)}$, these is tubular filaments, \vec{E}_{gr} gravitational field strength (potential).

$\vec{E}_{\rm gr} = \sqrt{G} \cdot {\rm grad} \rho_{\rm L,}$

G- the Newton's gravitational constant.

The density of the gravitational charge ρ_{gr}

$\rho_{\rm gr} = \sqrt{G} \cdot \operatorname{div} \operatorname{grad} \rho_{\rm L} = \Delta \rho_{\rm L}$

 $\triangle = \nabla \cdot \nabla$ - the Laplace operator.

The dimension of the CGS (centimeters, grammes, seconds) \vec{E}_{gr} and ρ_{gr} are the same as in electrodynamics. Laws of electrodynamics are true for gravity.

Take the postulate:

div $\vec{E}_{gr} = 4\pi\rho_{gr} - \frac{1}{c_{gr}} \cdot \frac{\partial |\vec{B}_{gr}|}{\partial t}$, rot $\vec{E}_{gr} \equiv 0$, rot $\vec{B}_{gr} = \frac{4\pi}{c_{gr}} \cdot \vec{J}_{gr} + \frac{1}{c_{gr}} \cdot \frac{\partial \vec{E}_{gr}}{\partial t}$, div $\vec{B}_{gr} \equiv 0$

 \vec{j}_{gr} - the density of the gravitational current (the density of the kinetic momentum); \vec{B}_{gr} -tension of the Vortex gravitation.

From these equations should:

- 1. The precession of mercury's orbit is calculated the same way as the motion of a charged particle in the Coulomb field (will see Landau, Lifshitz "The theory of fields", § 39).
- 2. Gravity currents directed-push, one direction-attract.
- 3. Equation General Relativity are suitable for the "black holes" of space.

The conclusion:

"The truth is in wine, and in liquid He II (helium)".

For tolerance in science!

Andrey Chaykin