

**APPEAL FOR CORRECT THE FUNDAMENTAL ERRORS IDENTIFIED IN
CONVENTIONAL PHYSICS**

Open Letter No.10

(To Science Forum participants - ESOF, Turin, Italy, July 19, 2010)

NOTE: *After comments received from the Mr. Gerardus 't Hooft, winner of Nobel Prize for Physics, whose again thank this way, we substantially revised the presentation of first 10 identified fundamental errors in conventional physics, included in the open letter No 9.*

Innovative research results in recent years shows that physical science is based on an error series, of which **10** among them are presented in the attachment, as follows: **1) Error of measure units at the Planck's constant** (*confusion on both Wave Power and Wave Energy*); **2) Error at relativistic equation for mobile mass**; **3) Confusion error on the Physical Spaces**; **4) Confusion error on the particles and the waves** (*confusion on both Photon Radiation and Electromagnetic Waves*); **5) Confusion error on gravity waves** (*mother nature of the gravitation*); **6) Confusion error on electromagnetic waves** (*mother nature of the electricity*); **7) Confusion on the Structure of Proton** (*cause of nuclear disintegration*); **8) Confusion error on the waves diffraction within atomic nuclei** (*mother nature of strong and weak nuclear forces*); **9) Ignorance in point of kinetic equivalence to the electromagnetic measure units** (*new Fundamental Measurement Units System based on unitary genesis of the phenomena*); **10) Ignorance in point of thermal physical spaces** (*new energy source from kinetic molecular movement in fluids*).

After identification, and publication errors, the scientific community is in an obvious significant **conflict of interests**:

a)- Public Interest (*supported by professional ethics and responsibility*) which requires periodic review knowledge in line with new innovative research results, **needs the correction of identified errors**;

b)- Personal & Group Interest, of those who published books and papers based on fundamental errors, taking posts of governmental advisers for spending public money in education and research, **opposes to correction of identified errors**.

In this case the **public interest** seems to be in difficulty because of **personal & group interest** is served by public money embezzled and powerful tool tradition of educational and editorial cloning / perpetuation of errors.

Corruption to persons by the personal & group interest in conflict with public interest seems to be, because of consequences, the most dangerous type of corruption in the democratic societies. Maintaining the position of "official science", in obvious conflict with the public interest, the **mathematical models** based on fundamental errors (i.e. hedge games, arrogantly called "Standard Model"), rather than **physical model** result of innovative research is itself a **fundamental error**, which blocks awareness of nature, achieving true "black holes" (*called "crisis"*), in the pocket of European citizens.

Elimination the new physical model resulted from the innovative research, by protecting the old mathematical models, violates supplementary the competition rules in EU.

Scientists and engineers who deem valid arguments of attachment, we ask to submit their opinions by fax, email or in any way online, to be considered in the decision to continue or not, innovative research. Original arguments will give to the author intellectual property rights.

Result of poll will be made known to the **Science Forum - ESOF, Turin, Italy, July 19, 2010**, where they are invited to attend all stakeholders who believe in development based on knowledge protected by correction of identified errors.

Thanks in advance and best thoughts to all!

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Arogance ascension in science seems to have created an anti-innovative immunity, which yearly costs many billions of public money, maintaining science in a continue crisis and compromising hopes of the all peoples in a better future!

FUNDAMENTAL ERRORS IDENTIFIED IN CONVENTIONL PHYSICS

Part I

(by *Iulian Somacescu*, soma@clicnet.ro)

Abbreviations:

kg = kilogram; **m** = meter; **s** = second; **rad** = radian

J = Joule; **W** = Watt; **K** = Kelvin; **N** = Newton;

C = Coulomb; **F** = Farad; **H** = Henry; **Hz** = Hertz

x*y = **x** multiplied by **y**

[**x-Fy**] = reference **x** – formula **y**

cal / mol = calories per mol; **e / mol** = electrons per mol

FGKF = free gravitons kinetic field; **FCKF** = free cuantoms kinetic field; **PTKF** = physical thermons kinetic field

GS = gravity physical space; **QS** = quantum physical space; **TS** = thermal physical spaces

Error no. 1

Error of measure units at the Planck's constant

(Confusion on both Wave Power and Wave Energy)

Reviewing the **Planck's** measurement of radiations from a black body, firstly we remark the **physical inconsistency** of the Planck's formula $E_\gamma = h\nu_\gamma$, where: $h = 6.6260693(11) \times 10^{-34} \text{ J*s}$, is the **Planck's** constant, having dimensions of spectral energy density; ν_γ is the frequencies of waves generated by radiated photons.

All researcher engineers, as the author, know that in wave areas the concept of "energy" is „**undetermined**” because it involves time duration of the measurement.

In wave areas the product $h\nu_\gamma$ conveys “energy during time unit $t_u=1 \text{ s}$ ”, i.e. wave **power** multiplied by t_u , because only “**Power**”, not “**Energy**”, can correctly express wave processes.

The Planck's expression $E_\gamma = h\nu_\gamma$ is **a fundamental error** because only in corpuscular collisions, not in wave areas, the expression of energy does not contain the “**time duration**”.

The **error** comes from the constant **h**, which must be expressed in **J**, not in **J*s**.

Removing that identified **error**, the Planck's formula becomes [21-F2.10]:

$$P_\gamma = \hat{h}\nu_\gamma \quad (1.1)$$

where: \hat{h} (*with accent circumflex*), is the “**Fundamental Quantum of Energy**” expressed in **J** equal quantitatively to **Planck's** constant; P_γ is the wave power of the radiation.

Physical significance of the constant $\hat{h} = 6.626069311 \times 10^{-34} \text{ J}$, is the energy exchanged between photon / elementary particle, on the one hand, and the surrounding free cuantoms kinetic field (FCKF) , during a single cycle of excitation-relaxation of the particle (*wave generating*), on the other hand [1; 2].

Another remark from the reviewing the **Planck's** measurement is the presence of frequency ν , in the radiant processes. It proves that photons and elementary particles engender waves uninterruptedly, through pulsating movements within surrounding physical kinetic field.

The material structure of the surrounding physical kinetic field, which can exchange the fundamental quantum \hat{h} in interaction with pulsating photon or elementary particle is obviously a fundamental subparticle (*named "Cuantom" in innovative science engineering*).

Its mass is given by the *relativistic formula* [1-F1; 2-F1; 3-F1]:

$$m_c = \hat{h} / c^2 = 7.37249639 \times 10^{-51} \text{ kg} \quad (1.2)$$

where $c = 2.99792458 \times 10^8 \text{ m / s}$, is the speed of waves into FCKF .

The formula (1.2) proves supplementary that expression Planck's constant in (**J*s**) instead of **Joules** is obviously **a fundamental error** because with **J*s** dimensions, the mass becomes expressed in (**kg*s**) instead of **kg**.

Error no. 2

Error at relativistic equation for mobile mass

The relativistic principle „**the wave speed does not depend on source speed**”, is based on the fact that the wave carrying is the free subparticles kinetic field (*i.e. free gravitons in this case*), with an average kinetic speed very close of the c value (*the same in both stationary and mobile state of the cuantoms*).

That relativistic principle has been analysed quantitativeley by the innovative research in the paper [7-F10 to 17].

The total energy of the cuantom were written under the form [19- F45]:

$$m_{cv}c^2 = m_{cv}v^2 / 2 + m_c c^2 \quad (2.1)$$

where m_{cv} and m_c are the cuantom mass values in the both situations: stationary and moving at the speed v .

Value of the moving mass result from the relativistic principle expressed through the formula [22 -F48], or from the formula (4.1), thus:

$$m_{cv} = m_c + m_{cv}(v^2 / 2c^2) \quad (2.2)$$

The term $(m_{cv}v^2 / 2c^2)$ is the moving component of the total mobile mass, which extends the quantum shape like a „micro-comet” in the sense inverse to the direction of moving, and the term m_c is the component of the stationary quantum.

From the formula (4.2) the sum of the two components results [19-F48]:

$$m_{cv} = m_c / (1 - v^2 / 2c^2) \quad (2.3)$$

or separated on the two components (m_c – *stationary mass* and m_v – *variable mass*):
where:

$$m_{cv} = m_c + m_v \quad (2.4)$$

$$m_v = m_c / ((2c^2/v^2) - 1) \quad (2.5)$$

For $v \ll c$, the relativistic formula (4.3) can be considered equivalent to the approximately known formula used in the conventional physics:

$$m = m_0 / (1 - v^2 / c^2)^{1/2} \quad (2.6)$$

For $v = c$, the moving mass is given by:

$$m = m_0 + m_0 = 2m_0 \quad (2.7)$$

This value has been observed at the relativistic mass effects (*see the deflection of light stars, tangent to the Sun – Edington and Cottingham, 1919 year*), including at the energy relativistic formula: $E = mc^2$ (*see the photoelectric effect and other similarly*), which becomes from *the classical formula in total accordance with the relativistic formula*:

$$E = m_c c^2 / 2 + m_c c^2 / 2 = m_c c^2 \quad (2.8)$$

Value of $(1 - v^2 / 2c^2)$ has been named „relativistic factor”.

For $v = v_0 = 2.1876912633 \times 10^6$ m/s (*mean speed of bound quanta inner elementary particles*) the relativistic factor becomes:

$$k_{r0} = 1 / (1 - v_0^2 / 2c^2) = 1.0000532535 \quad (2.9)$$

For $v = c$ the relativistic factor becomes:

$$k_{rc} = 1 / (1 - c^2 / 2c^2) = 2 \quad (2.10)$$

Affirmation in the conventional physics that the formula (4.6) applicable approximately for $v \ll c$ (*without physical consistence*) is applicable likewise for $v = c$, is obviously a **fundamental error**, which must be corrected, because it is in evident conflict with relativistic principles validated by the natural phenomena.

Based on new results, the innovative research has published in 1987 year the physical explanations of relativistic effects [4; 5; 6; 9 to 17]: the gravity effect [4; 5; 6; 11]; the mass variation effect [9]; the inertia effect [10]; the coupling decrease effect in accelerating fields [12]; the runway increase into particles accelerator[13]; the magnetism effect [14]; the deflection of light in the Sun nearness [15]; the red shift of the far stars light [16]; the planetary perihelion advance [17].

Ignoring the results from the innovative research including those about coupling factor of free cuantoms accelerator kinetic field with electron or proton into particle accelerators, which decreases when the speed of the electric particles increases [22 -F 87 to 92] is **another error**, which must be corrected, the sooner the better for satisfy the public interest.

Error no. 3

Confusion error on the Physical Spaces

The conventional hypotheses in the “modern physics” use in analyses only the geometric / imaginary space as “space – frame”, in despite of the publication the new results from the innovative research in this kinetic fields.

Based on experimental data, in 1984, 1985 and 1986 years [4; 5; 6] has been developed concepts of another two physical spaces: the “Basic / Subquantum Space” for Gravitation (**GS**) and the “Quantum Space” for Electromagnetism (**QS**), based on unitary evolution spiral stairs:

$$\text{Subparticles} \rightarrow \text{Free Subparticles Field} \rightarrow \text{Field Pulsating Clusters} \rightarrow \text{Cluster Waves} \quad (3.1)$$

or in equivalent “*mass – energy – power*” expression:

$$\text{GS} \rightarrow \boxed{\mathbf{m}_g \rightarrow (\mathbf{m}_g \mathbf{c}_g^2 = \hat{\mathbf{h}}_g) \rightarrow (\mathbf{n}_c \mathbf{m}_g ; \mathbf{n}_c \hat{\mathbf{h}}_g) \rightarrow \hat{\mathbf{h}}_g \nu_c} \quad (3.2.)$$

$$\text{QS} \rightarrow \boxed{\mathbf{m}_c \rightarrow (\mathbf{m}_c \mathbf{c}^2 = \hat{\mathbf{h}}) \rightarrow (\mathbf{n}_i \mathbf{m}_c ; \mathbf{n}_i \hat{\mathbf{h}}) \rightarrow \hat{\mathbf{h}} \nu_i} \quad (3.3.)$$

The relation (3.1) can be written in usual terms:

$$\text{GS} \rightarrow \boxed{\text{Gravitons} \rightarrow \text{Free Gravitons Field} \rightarrow \text{Cuantoms} \rightarrow \text{Gravity Waves}} \quad (3.4)$$

$$\text{QS} \rightarrow \boxed{\text{Cuantoms} \rightarrow \text{Free Cuantoms Field} \rightarrow \text{Elementary Particles} \rightarrow \text{Quantum Waves}} \quad (3.5)$$

where:

- The **Gravitons** (*bricks of Universe*), are indivisible and individually indiscernible, because of their dimensional incompatibility with experimental instruments consisting of structures whose size dimensions (*mass, energy, volume*), start-up material particles, which are of billions of times bigger than the graviton.
- The **Free Gravitons Kinetic Field**, is a kinetic superfluid medium, unlimited as sizes, homogeneous, populated by free gravitons at an average speed \mathbf{c}_g close of wave speed \mathbf{c} .
- The **Cuantoms** are kinetic superfluid cluster composed of bound gravitons at speed close by the product [4-F3]:

$$\boxed{\alpha \mathbf{c} = \mathbf{v}_o = 2.1876912633 \times 10^6 \text{ m/s}} \quad (3.6)$$

where:

$$\boxed{\alpha = \mathbf{v}_o / \mathbf{c} = 1/137.036} \quad (3.7)$$

is the constant of the fine structures determined experimentally by **Sommerfeld**. It is individually indiscernible, because the same reason like as graviton.

- The **Gravity Waves** are kinetic waves generated uninterruptedly by the pulsating cuantom caused by collision with cyclically absorption – emission of free gravitons.
- The **Cuantom** is the single common element of the both spaces: Gravitational and Quantum / Electromagnetic, so as it results from the new fundamental equality [3-F2]:

$$\boxed{\mathbf{m}_c = \epsilon_0 \mu_0 \hat{\mathbf{h}}} \quad (3.8)$$

where: $\epsilon_0 = 8.854187817 \times 10^{-12}$ F / m, is the electric permittivity of FCKF , expressed in F / m;
 $\mu_0 = 1.2566370614 \times 10^{-6}$ H/m is the magnetic permeability of the FCKF, expressed in H / m.

- The **Free Cuantoms Kinetic Field** is a kinetic superfluid medium, unlimited as sizes, homogeneous, populated by free cuantoms at an average speed c_c close of wave speed c .
- The **Elementary Particles**, are kinetic superfluid clusters composed of bound cuantoms at average kinetic speed v_o .
- The **Quantum / Electromagnetic Waves** are generated uninterruptedly by the pulsating elementary particles into the FCKF.

The clusters born from clustering process of slow gravitons or cuantoms, under the pressure exercised by subparticles kinetic fields at equilibrium to inner own pressure.

The pulsating effect of kinetic cluster structures is caused by the absorption-emission free subparticles intercepted in physical space. During the absorption phase of subparticles intercepted, inner volume energy / pressure / increase to equal constant pressure at interact with physical space. During the emission phase, the loss of energy (*i.e. the volume density*) decreases accordingly.

The work given by the product $m_c c^2$ performed by incident cuantom during an excitation-relaxation cycle ($m_c c^2 / 2$ during absorption, when the speed is changed from c to c_o and $m_c c^2 / 2$ during emission, when the speed is changed from c_o to c), supports pulsating movement of the elementary particle.

The individual characteristics (*mass - volume - energy*) of both the graviton and cuantom, could be determined experimentally, only indirectly by measuring the "collective effects / acts" (*gravity, inertia and electromagnetism*), detectable by means of elementary particles that compose the measurement apparatus.

The cuantom as being a kinetic pulsating cluster which absorbs and emits n_c free gravitons per time unit, into uninterrupted collisions process at a speed c_g , close of light speed c .

Value of the subquantization factor $n_c = 2.5218344118 \times 10^{41}$ (*number of cuantom pulsations per time unit*) has resulted from the equilibrium of both spaces: subquantum and quantum, discovered in the new unitary equality / equation [4-F54]:

$$\frac{e^2}{4\pi\epsilon_0} = G(n_c m_c)^2 = 2.3070772558 \times 10^{-28} \text{ kg} \cdot \text{m}^3 / \text{s}^2 \quad (3.9)$$

where: $G = 6.67421 \times 10^{-11}$ expressed in $(\text{m} / \text{s}^2) / (\text{kg} / \text{m}^2)$, is the **Newton's** constant;

$e = 1.6021765314) \times 10^{-19}$ C, is the electric elementary charge expressed in **Coulombs**.

The quantum energy formula written under the form:

$$\hat{h} = e^2 / 2\epsilon_0 \alpha c t_u \quad (3.10)$$

allows a rigorous determination of the constant \hat{h} value, based only on measured characteristics of e , ϵ_0 , α and c .

The average radius of cuantom, $r_c = 1.38066907269) \times 10^{-36}$ m, results from the subquantization gravity formula [4-F11] :

$$\hat{h}_g = Gm_c^2 / r_c = \hat{h} / n_c = 2.6274799329 \times 10^{-75} \text{ J} \quad (3.11)$$

The mass of graviton is given by the formula [4-F18]:

$$m_g = \hat{h}_g / c_g^2 = 2.8793481037 \times 10^{-92} \text{ kg} \quad (3.12)$$

where: $c_g = 3.0208044856 \times 10^8$ m / s, is the speed of free gravitons into gravity space, resulted from the formula of the refractive index of FGKF towards free cuantoms at average speed c_c , experimentally measured by the chemist **Smithe** [18-F5.1.2]:

$$c_c / c_g = k_s = 0.999721208 \quad (3.13)$$

$c_c = 3.0199623095 \times 10^8$ m / s results from the refractive index of the FCKF towards quantum waves at speed c :

$$c / c_c = (1 - \alpha) = k_c = 0.9927026475 \quad (3.14)$$

\hat{h}_g is the subquantum energy exchanged reciprocally by cuantom and gravity kinetic field during a collision with a single free graviton.

Each kinetic component of the physical spaces is characterized by its refractive index, so as it is shown in the formulas (3.13) and (3.14).

The same refraction index:

$$\alpha = v_o / c \quad (3.15)$$

for all kinetic clusters expresses an universal resonance in Nature.

The constant of universal attraction results from the *relativistic equality* [22 -F37]:

$$Gm_c^2 / r_c = m_g c^2 \quad (3.16)$$

Each elementary particle generates waves of λ_i length equal to the amount determined by the type **Compton** scattering experiments.

The wave frequencies generated by elementary particles in the quantum kinetic field is given by the classical formula $\nu_i = c / \lambda_i$.

The number of absorption-emission cycles per time unit is given by the new formula :

$$n_i = ct_u / \lambda_i \quad (3.17)$$

where t_u is the conventional unit of time [22 -F24].

The average radius of kinetic clusters is given by the formula [4-F6]:

$$r_i = v_o / 2\pi\nu_i = \alpha\lambda_i / 2\pi \quad (3.18)$$

where ν_i is their pulsating frequency.

The motionless mass of elementary particles is given by the formula:

$$m_i = n_i m_c \quad (3.19)$$

The motion mass of elementary particles as sum of $n_i m_c$ is dependent on the speed v_i of the component quanta in relation to the gravity kinetic field (*relativistic effects*).

The changed energy per time unit between elementary particle and FCKF is given by the new formula:

$$E_i = n_i \hat{h} \quad (3.20)$$

where $\hat{h} = 6.626069311 \times 10^{-34} \text{ J}$ energy is exchanged during a single absorption-emission cycle [22 -F18].

The power of waves power generated by elementary particle into FCKF is given by:

$$P_i = \hat{h}\nu_i \quad (3.21)$$

The pulsation cause of elementary particles is the tendency of equalization internal pressure (*volume density of energy expressed in J / m^3*), which varies every cycle of absorption – emission of intercepted quantum, on the one hand and external pressure, which remains constant

within Free Cuantoms Kinetic Field . When a cuantom intercepted is absorbed, internal energy increases, causing increased particle volume, when it is expelled internal energy decreases, causing decreased particle volume.

In fact there is ***a single corpuscle in nature: the graviton***. All upper material structures are ***stationary waves inner kinetic clusters*** having length equal to the product $(2\pi r_i)$ [4].

Attempting to research the Nature ignoring the two physical spaces, or replacing them with a geometric / imaginary space, appears as a **fundamental error** which blocks the knowledge and using friendly the Nature.

Scientists trying to "**intercept**" of alleged single indiscernible subparticles is **another error**, because in this effort the dimensional incompatibilities are ignored.

Both the origin of the basic subparticles (*with their mass and energy*) and the attribute of "eternal" for the fundamental waves (*the heart of the matter*), will remain permanently an open subject for religions and philosophers.

Error no. 4

Confusion Error on the Particles and the Waves

(Confusion on both Photon Radiation and Electromagnetic Waves)

Repeating the **Lebedev's** experience of **1889** year, if we project a beam of light on a very thin aluminum foil, hung on an eccentric torsion mirror, we see immediately turning bright spot associated with moving mirror.

Is definite evidence that the energy of motion of photons has a corpuscular component of translation (*vectorial component*), transferred to the aluminum foil in the collision.

Replacing the photon projector with a microwave transmitter on frequencies in **23 GHz** bands (*market access*), connected to a parabolic antenna with a beam to generate the same electromagnetic power as photon beam above, we see **no-one tendency to rotate movable mirror**.

In 1987 year, comparing electromagnetic waves and light photons, the innovative research measured dependency of both waves and photons, on source speed [7, 8].

Resulted that the wave speed does not depend on source speed, in accordance with **relativistic principle**. Also resulted that the **time duration** for the photon travel inner an **undeformable system** remains invariant in relation to the speed of that system (*like at Michelson's experiment*).

But in a deformable system (*with mobile source in that system*), the speed of light photons depends on source speed, while the wave speed does not.

The experiment on photons used an interferometer and six moving mirrors, such as the experiment made by **Sagnac** in 1913 year.

The ***explanation of the relativistic effect*** (*the wave speed does not depend on source speed*), is because the wave carrying is the quantum kinetic field with an average kinetic speed equal to **c**, but the carrying of the particle photon is just the photon itself at its individual non kinetic speed.

All experiment on **Doppler** shift effect in different kinetic media have proved that when the source become mobile at the speed **v**, only the frequency **ν** and wavelength **λ** vary, but never their product **$\nu \lambda = v$** , which remains constant, equal to the average speed of the kinetic propagation medium.

Accurate measurements on coming of light and radio waves up to Earth from an exploded star, show that their time durations are different of some minutes, for the same path distance.

Another experience about difference consists in trial to light up consecutively a wood morsel from both sources: light photons and very strong radio waves. Or trial to generate electric current into dielectric material as photocells, radiating that material by a strong radio waves (*which are electromagnetic of a surety*).

One of the conclusions is that electromagnetic waves are a propagation phase perturbations induced by the wave generator onto FCKC, while the light consists of corpuscular pulsating entities (*photons*), which generate their own waves in the same FCKC.

Experience shows that the statement "**light is electromagnetic wave**", appears as obvious **fundamental error**, identified experimentally, but unavoidable since in specialty books and textbooks.

NOTE: *The author has researched over 40 years on wave propagation Kinetic Fields and over 25 years on optical transmission.*

Error no. 5
Confusion Error on Gravitational Waves
(Mother Nature of the Gravitation)

The cuantoms bound into elementary particles run both a kinetic movement at average speed v_0 and a spin movement around own axis, because the particle-cluster was born by slow kinetic movements of some gravitons who have transferred their translation energy difference from $m_c c^2$ (*free state*) to $(m_{cv} v_0^2 / 2c^2)$ (*bound state*), in spin energy, accordingly to the conservation law [19].

The radial pulsation of elementary particle does effectively the bound cuantoms to be connected to the **Magnus** effect, taking into account that each of them is actually a spin object which rotates around an own spindle, forced to move inside a free gravitons flow of FCKF [6].

The **Magnus** force perpendicular both to the bound cuantom axis and to the direction of fluid flow of free gravitons, forces both the radial and the spin movements timing, such as all those bound cuantoms to behave synergically like a wave in relation to the intercepted cuantoms, not as individual entities like bound gravitons into cuantom.

The spin phase polarity of the bound cuantoms (levo-gyrating or dextro-gyrating) is transmitted by collision (*absorption-emission cycles*) to all intercepted free cuantoms under form of spin kinetic waves.

Taking into account the wave polarity, it is clear that the neutral elementary particles like neutron, proton nucleus and photons are "**double polarity particle**". The bound cuantoms change the phase by **180 degrees** after the collision, then they run a par number of collisions inside cluster, getting into position next collision with another intercepted cuantom having a changed phase from the previous collision. Succession absorption-emission cycles elementary particle corresponds to a sequence of changing polarization wave generated in the Free Cuantoms Kinetic Field . In other words, a particle "electrically neutral" is actually a particle which in turn manifests negative power and positive power, like an electric dipole to rotate around their axes.

The "**wave dipole effect**" of neutral elementary particles were observed in all the experiences of those particles pass through a significant magnetic kinetic field intensity [4].

The electron and positron are "**single polarity particles**", where the bound cuantom run an odd number of internal kinetic collisions between two successive cycles of absorption-

emission of intercepted cuantoms, which always generates the wave with the same polarization phase [5].

Value of odd or par number of inside elementary collisions between two successive cycles of absorpction-emission of intercepted cuantoms, for each type of elementary particle separately, is an open question for the innovative research.

The gravity waves are without phase polarization and without diffraction because the graviton is not pulsating wave generating subparticle as the cuantom.

Absence of diffraction at gravity waves causes a deficit of pressure from the free intercepted gravitons between cuantoms, which is just **gravitational effect (only attractive reciprocally)**, measurable at all bodies composed of elementary particles, which at their turn are composed of bound cuantoms. Gravitational mass of bodies is only an arithmetic summing mass of all constituent regardless of the forms of condensation by passing those bodies (solid, liquid, gas or plasma).

The kinetic force, which acts from free graviton on cuantom at each absorpction-expulsion cycle of the pulsating cuantom, is given by:

$$\mathbf{F}_{gc} = \hat{h}_g / r_c = 1.9030483009 \times 10^{-39} \text{ kg} \cdot \text{m} / \text{s}^2 \quad (5.1)$$

A mutual interaction \mathbf{F}_{cc} between each and everyone cuantoms at reciprocal distance \mathbf{R} , given by the pressure deficit within the interposed FGKC in relation to pressure from the same kinetic field outside of interaction [6], is proportional to:

- the lack of radial *force* obstructed by the reciprocally "shadowing", equal to \mathbf{F}_{gc} ;
- the receiver section of the cuantom *for a single graviton*, equal to $(\pi r_c^2 = 5.9886518485 \times 10^{-72} \text{ m}^2)$;
- the mutual distance attenuation factor $(1 / \pi R^2)$ [22-F37], according to the formula:

$$\mathbf{F}_{cc} = (\hat{h}_g / r_c)(r_c / R)^2 = Gm_c^2 / R^2 \quad (5.2)$$

which is just the **Newton's** formula, because kinetic equivalence of the **Newton's** constant:

$$\mathbf{G} = \hat{h}_g r_c / m_c^2 \quad (5.3)$$

Lack of diffraction where the pressure to cover the deficit in the 'shadow' behind cuantoms makes interaction distance \mathbf{R} to be unlimited.

Lack of gravitational waves so the phases, makes the interaction to be permanently attractive, so in nature does not exist "antigravity".

Gravity effect manifests itself universally only between cuantoms, which constitute all elementary particles within gravity space, not between elementary particles existing within Quantum Space or between bodies existing within Bodies / Mechanical Space.

Error no. 6

Confusion Error on Electromagnetic Waves

(Mother Nature of the Electricity)

The mutual interaction between each double polarity particles and other is void in the cuantoms Kinetic Field due to the alternative wave dipole polarization. The effect of diffraction of dipole waves behind the intercepted particles blocks the alternative / dipole forces in the same Kinetic Field.

The attractive or repulsive force which appears between two electrons / positron (*single polarity particles*) placed at a reciprocal distance **R** is proportional with:

- the *spin wave radial force*, which is transmitted to a free intercepted cuantom, equal to
- $$F_{ee} = \hat{h} / r_e = 2.3513873773 \times 10^{-19} \text{ N}$$
- the n_e *resonant waves* per time unit;
 - the *spin wave receiver section* of the electron, equal to ($\pi r_e^2 = 8.8528206242 \times 10^{-30} \text{ m}^2$),
 - the mutual distance attenuation factor ($1 / \pi R^2$) [22], according to the formula:

$$F_{ee} = \pm n_e (\hat{h} / r_e) (r_e / R)^2 = \pm e^2 / 4\pi\epsilon_0 R^2 \quad (6.1)$$

which is just the **Coulomb**'s formula, because:

$$e^2 / 4\pi\epsilon_0 = \pm n_e \hat{h} r_e = \pm 2.3070772558 \times 10^{-28} \text{ kg} \cdot \text{m}^3 / \text{s}^2 \quad (6.2)$$

where:

$$n_e = ct_u / \lambda_e = m_e / m_c = 1.235589973 \times 10^{20} \quad (6.3)$$

is the umber of resonant waves generated during time unit t_u ;

$\lambda_e = 2.4263102382 \times 10^{-12} \text{ m}$ is the wavelength measured in the experiment of **Compton** type;

$m_e = 9.109382616 \times 10^{-31} \text{ kg}$ is the measured value for the electron mass;

The average radius of the electron is given by:

$$r_e = \alpha \lambda_e / 2\pi = 2.8179403253 \times 10^{-15} \text{ m} \quad (6.4)$$

resulted from the inner dynamic stability formula:

$$2\pi n_e r_e = v_0 t_u \quad (6.5)$$

The frequency of electron waves is given by:

$$v_e = c / \lambda_e = 1.235589973 \times 10^{20} \text{ Hz} \quad (6.6)$$

In the [22] has been explained qualitatively and quantitatively:

- effect of magnetism [22- F109 to 115],
- electromagnetic induction effect [22 -F116 to 130],
- selfinduction effect [22-F131 to 136].

The quantum energy exchanged reciprocally by the pulsating electron and the FCKF, during a time unit is given by the relativistic formula:

$$E_e = n_e \hat{h} = e^2 / 4\pi\epsilon_0 r_e = 8.1871048 \times 10^{-14} \text{ J} \quad (6.7)$$

The resonance equation which ensure the dynamic equilibrium of electron in the interaction with the two fundamental spaces, into both forces kinetic field and the energy flows, is given by:

$$\hat{h} / r_e = n_e G m_e^2 / r_e^2 = 2.3513873773 \times 10^{-19} \text{ N} \quad (6.8)$$

The wave power generated by electron is given by:

$$P_e = \hat{h} v_e = 8.187104742 \times 10^{-14} \text{ W} \quad (6.9)$$

The dynamic stability equation of electron / positron written under form:

$$n_e m_e r_e \omega_e^2 = e^2 / 4\pi\epsilon_0 (\lambda_e / 2\pi)^2 = 1.5471385157 \times 10^{-3} \text{ kg*m(rad / s)}^2 \quad (6.10)$$

shows us that the electricity effect is given by the spin movement of the cuantoms where

$$\omega_e = 2\pi v_e \text{ rad / s.}$$

Error no. 7

Confusion Error on the Structure of Proton

(Cause of Nuclear Disintegration)

In 2004 year, based on dynamic stability equations of elementary particles interacting with the FGKF and FCKF, innovative research discovered the single-cell structure of the proton (*a pulsating nucleus of neutron type inner a pulsating membrane named „positron”*) [3; 22].

The positron is an electron actually penetrated by a neutron, whose pulsation phase changed **180 degrees** during the collision of penetration.

All particles except the neutron, are transparent for the free intercepted cuantoms (*part of them traverse the particle without collision on inner bound cuantoms*).

The proton has a dual mode of pulsating at frequencies ν_{e+} and ν_{pn} .

The cell type dynamic structure of proton explains many phenomena, as the coupling atomic disintegration to burning or explosion.

When an electron is penetrated by a neutron (*situation caused by burning or little explosion*), the electron together that neutron become proton, defacing inner atom equilibrium.

The protons number becomes with two units bigger than electron number. It follows a violent expulsion of two supplementary protons together two associated neutrons, i.e. an Alfa-Ray (*helium nucleus*) appears.

When an protonic neutron / nucleus is expelled outside the positron, (*situation caused by burning or little explosion, too*), the positron becomes electron, defacing inner atom equilibrium.

The electrons number becomes with two units bigger than protons number. It follows a violent expulsion of two supplementary electrons, i.e. a Beta-Ray appears.

These phenomena can be observed when we put on fire a cubic metre of wood. After some time, from that cubic metre of wood will remain very little ash. Just about all matter nuclei have been disintegrated into rays.

The number of gravitons absorbed / emitted from a pulsating protonic nucleus during t_u , is given by:

$$n_{pn} = m_{pn}/m_c = 2.2674962268 \times 10^{23} \quad (7.1)$$

where:

$$m_{pn} = m_p - m_{e+} = 1.6717107746 \times 10^{-27} \text{ kg} \quad (7.2)$$

is the experimental value ($m_p = 1.6726217129 \times 10^{-27} \text{ kg}$; $m_c = 7.37249639 \times 10^{-51} \text{ kg}$).

The average radius of the kinetic cluster protonic neutron / nucleus is

$r_{pn} = 1.5355345442 \times 10^{-18} \text{ m}$, resulted from the inner dynamic stability relation:

$$v_o t_u = n_{pn}(2\pi r_{pn}) \quad (7.3)$$

The quantum energy exchanged reciprocally by the pulsating protonic nucleus and the FCKF, during a time unit, is given by:

$$E_{pn} = n_{pn}\hat{h} = 1.5024587161 \times 10^{-10} \text{ J} \quad (7.4)$$

The mutual kinetic resonance of the two fundamental physical spaces is expressed by double dynamic stability equation within both Quantum and Gravitation Spaces (i.e. the spin wave radial force, transmitted to FCKF):

$$\hat{h} / r_{pn} = n_{pn}Gm_c^2 / r_c^2 = 4.3151548338 \times 10^{-16} \text{ N} \quad (7.5)$$

The pulsating frequency of the protonic nucleus is given by:

$$\nu_{pn} = \nu_o / 2\pi r_{pn} = 2.2674962268 \times 10^{23} \text{ Hz} \quad (7.6)$$

The wavelength generated by protonic nucleus into the FCKF is given by:

$$\lambda_{pn} = c / \nu_{pn} = 1.322129909 \times 10^{-15} \text{ m} \quad (7.7)$$

The wave power generated by protonic nucleus is given by:

$$P_{pn} = \hat{h}\nu_{pn} = 1.5024587161 \times 10^{-10} \text{ W} \quad (7.8)$$

The spin wave radial force, transmitted to FCKF,

$$F_{pn} = (\hat{h} / r_{pn}) = 4.3151548339 \times 10^{-16} \text{ N} \quad (7.9)$$

NOTE: The experiments made by *Taylor (SLAC) and Friedman-Kendall (MIT)*, where accelerated electron fascicles collided with target protons, demonstrated, based on the distribution of energies and spreading angles, that some electrons collided with particles with sizes of approximately 10^{-18} m , situated inside the proton, and with positive electric charges inside the dimensions of approximately 10^{-15} m , which also belong to the proton.

Confusion on the structure of photon **is another error** because the new results from the innovative research are able to create new energy sources based on other new atomic technologies.

Error no. 8
Confusion Error on the waves diffraction within Atomic Nuclei
(Mother Nature of Strong and Weak Nuclear Forces)

The results from the innovative research [22], show that the **neutron** is a **kinetic cluster** composed of bound cuamtoms at the average kinetic speed v_o , pulsating with n_n pulses (*cycles of absorbed / emitted cuantoms*) per time unit.

The number of gravitons absorbed / emitted from a pulsating neutron during time unit t_u , is given by:

$$n_n = m_n / m_c = 2.271859075 \times 10^{23} \quad (8.1)$$

where $m_n = 1.6749272829) \times 10^{-27}$ kg is the experimentally determinated value;

The average radius of neutron is $r_n = 1.5325857239) \times 10^{-18}$ m, resulted from the inner dynamic stability relation of neutron:

$$2\pi n_n r_n = v_o t_u \quad (8.2)$$

The quantum energy exchanged reciprocally by the pulsating neutron and the FCKF, during a time unit, is given by:

$$E_n = n_n \hat{h} = 1.50534957 \times 10^{-10} \text{ J} \quad (8.3)$$

The mutual kinetic resonance of the two fundamental physical Spaces is expressed by double dynamic stability equation within both FCKF and FGKF:

$$\hat{h} / r_n = n_n G m_c^2 / r_c^2 = 4.32345754(47) \times 10^{-16} \text{ N} \quad (8.4)$$

The wave frequency generated by the pulsating neutron is given by:

$$v_n = c / \lambda_n = 2.271859075 \times 10^{23} \text{ Hz} \quad (8.5)$$

$\lambda_n = 1.319590906788) \times 10^{-15}$ m), is the wavelength generated by neutron into the FCKF established through experience of **Compton** type.

The wave power generated by neutron is given by:

$$P_n = \hat{h} v_n = 1.50525 \times 10^{-10} \text{ W} \quad (8.6)$$

The neutron is not transparent to free cuantoms, but all other elementary particles including photons, are transparent for free incident cuantoms, i.e. a part of free cuantoms pass through those clusters without interception / knocking of bound cuantoms.

By attributing a “zero” value to the transparent coefficient at neutron ($\mathcal{O}_n = 0$), for other kinetic elementary clusters i , the transparent coefficients are given by:

$$\mathcal{O}_i = 1 - v_i/v_n = 1 - \lambda_n/\lambda_i = 1 - r_n/r_i = 1 - n_i/n_n = 1 - m_i/m_n \quad (8.7)$$

The neurton exists in stable state only inner atom nucleus.

A special resonance found at electron and neutron, where the transparency factor can be written:

$$\mathcal{O}_e = 1 - m_{e^+} / m_n = (c_c/c_g)^2 = k_s^2 = 0.9994... \quad (8.8)$$

Because quantum wave diffraction, the pressure deficit between neutrons placed at a big reciprocal distance does not appears, as it appears at cuantoms within Free Gravitons Kinetic Field.

But on very short distance behind neutrons the quantum wave diffraction does not manifest itself. Accordingly between neutrons placed within atom nucleus (*at very short reciprocal distances*), very **strong attractive nuclear forces** appear. This effect has been experimentally identified at all analysed atoms.

Qualitative and quantitative analysis shows that the strong nuclear forces (*the mutual attraction of neutrons and protons inner complex atomic nucleus*), are given by their reciprocal kinetic shading effect, to pressure of free cuantoms intercepted from the FCKF.

The difference between gravitational shading and nuclear shading is reflected in both the dimensional difference between nucleons and cuantom and the action distances.

Unlike gravity, nuclear shading is "wave" shading, because the free pulsating cuantoms generate waves with very weak diffraction on the short distances behind nucleons.

On very short distance the quantum wave diffraction manifest itself weakly behind particles like electron and positron, too. Accordingly between electrons placed within atom nucleus (*at very short reciprocal distances*), **weak nuclear forces** appear (“weak” - *because to the transparency of electron / positron, as against neutron*). This effect has been experimentally identified at all analysed atom nuclei, too.

Confusion on the waves diffraction within Atomic Nuclei **is another error** because the new results from the innovative research are able to create new energy sources based on other new technologies.

Error no.9

Ignorance in point of Kinetic Equivalence to the Electromagnetic Measure Units (*New Fundamental Measurement Units System – FMUS - based on Unitary Genesis of the Phenomena in Nature*);

In **2004** year, the innovative research has elaborated a new unitary system of measure units, where all physical sizes have been expressed only by four units: **kilogram, metre, second and radian** [21; 22].

Writing the equivalence **Lorentz's** formula [$\mathbf{m_e r_e} = (\mu_o / 4\pi) e^2$] published by Max Abraham in 1903 under form [25]:

$$e^2 / 4\pi\epsilon_o = r_e m_e c^2 \quad (9.1)$$

under the new form:

$$e^2 / 4\pi\epsilon_o = r_e n_e m_e c^2 \quad (9.2)$$

the electrical sizes can be expressed in equivalent kinetic units as follows:

$$e = (4\pi / 3) k_e n_e m_e v_o / \alpha^2 = 1.6021765314 \times 10^{-19} \quad \text{kg} \cdot (\text{m} \cdot \text{rad}) / \text{s} \quad (9.3)$$

$$\epsilon_o = (4\pi / 3)^2 k_e^2 n_e m_e / 4\pi r_e \alpha^2 = 8.854187817 \times 10^{-12} \quad \text{kg} \cdot \text{rad} / \text{m} \quad (9.4)$$

$$1/\mu_o = (4\pi / 3)^2 k_e^2 n_e \hat{h} / 4\pi r_e \alpha^2 = 7.957747154 \times 10^5 \quad \text{kg} \cdot \text{m} \cdot \text{rad} / \text{s}^2 \quad (9.5)$$

where:

$\lambda_e = 2.4263102382 \times 10^{-12} \text{ m}$ is the wavelength measured in the experiment of **Compton** type;

$\omega_e = 7.7634407641 \times 10^{20} \text{ rad} / \text{s}$, is given by the classical formula $\omega_e = 2\pi\nu_e \text{ rad} / \text{s}$;

the presence of product **(4π)**, expressed in the measure unit **radian**, proves that quanta own spin movement;

$$1 / \alpha^2 = (\lambda_e / 2\pi r_e)^2 \quad (9.6)$$

the spin refractive index of the FCKF combined (*by the Magnus effect*) with the refractive index of the FGKF is given by:

$$k_e = (1-3\alpha) / k_s = 0.9783807071 \quad (9.7)$$

$k_s = 0.999721208$ is the refractive index of the same FGKF, to the free cuantoms (*Smithe's constant*).

Ignorance in point of kinetic equivalence to the electric measure units **is another error**, because the new results from the innovative research are able to create new energy sources based on other new technologies.

Error no.10

Ignorance in point of Thermal Physical Spaces

(New Energy Source from Kinetic Molecular Movement in Fluids).

The innovative research has demonstrated that the photon is a material structure, which exists only between opaque bodies: the emitter one and the absorbent / receiver other, where it moves incessantly.

The inner structure of photon is a kinetic cluster of bound cuantoms, which pulses at n_γ excitement – release cycles during a time unit, in interaction with free cuantoms intercepted within the FCKF.

The number of gravitons absorbed / emitted from an equivalent spheroid pulsating photon during t_u , is given by:

$$n_\gamma = v_\gamma t_u \quad (10.1)$$

The photon has only mobile mass because it never is in repose state.

The **photon mass** is given by:

$$m_\gamma = n_\gamma m_c \quad (10.2)$$

The transparency factor of the photon is given by:

$$\mathcal{O}_\gamma = 1 - m_{\gamma i} / m_n \quad (10.3)$$

The average radius of photon is given by:

$$r_\gamma = r_n / (1 - \mathcal{O}_\gamma) \quad (10.4)$$

The first dynamic stability relation of photon, which refers to the mutual interactions with

the both FGKF and FCKF is:

$$\hat{h} / (1 - \Theta_\gamma)^2 r_\gamma = n_\gamma G m_c^2 / r_c^2 \quad (10.5)$$

The quantum energy exchanged reciprocally by the pulsating photon and the FCKF, during a time unit is given by:

$$E_\gamma = n_\gamma \hat{h} \quad (10.6)$$

The pulsating frequency of the photon γ is given by:

$$\nu_\gamma = \nu_0 / 2\pi r_\gamma \quad (10.7)$$

The wavelength generated by photon γ into Quantum Space is given by:

$$\lambda_\gamma = c / \nu_\gamma \quad (10.8)$$

The wave power generated by photon γ is given by:

$$P_\gamma = \hat{h} \nu_\gamma \quad (10.9)$$

At the impact of photon and bodies, firstly the photon is disintegrated in the component cuantoms, which give their energy from $m_\gamma c^2$ up to $(m_\gamma c^2 / 2)$ to electrons, constituting new kinetic clusters around them.

The new structures are named “**Thermons**”. They are kinetic cluster of bound cuantoms, which surrounds the attached electron and pulses at n_t excitement – release cycles during a time unit.

The thermon can't be identified individually as particle, because when it comes off the electron, it becomes photon at speed c .

Cooling processes and explosive disintegration invert sense of change bound thermons at speed ν_0 in free photons at speed c .

Any body can be thermo-emitter, when its temperature (*inner molar energy density, i.e. thermo-pressure*) is bigger than environment, and thermo-receiver, when is smaller.

Electric resistance is just Power / Energy loss resulted from the collisions of the accelerated electrons and the passive thermons, within any stuff.

Unalignet disposing resonant, obtained at stuff band in breadth of on move direction of

$$\lambda_c / (\alpha / 4\pi) = 4.178 \times 10^{-9} \text{ m} \quad (10.10)$$

electrons with thermons cloud explains the superconductivity of the certain stuff at quasi-normal temperature.

The number of gravitons absorbed / emitted from a pulsating thermon during t_u , is given by:

$$n_t = \nu_t t_u \quad (10.11)$$

The mass of thermon is given by:

$$m_t = n_t m_c \quad (10.12)$$

The transparency factor of the thermon to free cuantoms is given by:

$$\mathcal{O}_t = 1 - m_t / m_n \quad (10.13)$$

where \mathcal{O}_t is the transperence factor at photon.

The average radius is given by:

$$r_t = r_n / (1 - \mathcal{O}_t) \quad (10.14)$$

The first dynamic stability relation of thermon, which refers to the mutual interactions with the both free gravitons and cuantoms Kinetic Fields, is given by:

$$\hat{h} / (1 - \mathcal{O}_t)^2 r_t = n_t G m_c^2 / r_c^2 \quad (10.15)$$

The quantum energy exchanged reciprocally by the pulsating thermon and the FCKF, during a time unit, is given by:

$$E_t = n_t \hat{h} \quad (10.16)$$

The pulsating frequency of the thermon is given by:

$$\nu_t = \nu_0 / 2\pi r_t \quad (10.17)$$

The wavelength generated by the thermon is given by:

$$\lambda_t = c / \nu_t \quad (10.18)$$

The wave power generated by thermon is given by:

$$P_t = \hat{h} \nu_t \quad (10.19)$$

Innovative research expressed temperature measured by **Penzias & Wilson** in kinetic terms under the form [18; 26]:

$$T_{(2.7)} = (\pi / 2) n_{(2.7)} N_{AF} \hat{h} / k_T k_c = 2.7 \text{ K} \quad (10.20)$$

where:

$$n_{(2.7)} = \nu_{(2.7)} t_u = 4.08 \times 10^9 \quad (10.21)$$

is number of free quants absorbed and emitted by the incoming photons, during time unit t_u ; $\nu_{(2.7)} = 4.08 \text{ GHz}$ is the frequency of pulsating photons received from all directions by **Penzias** and **Wilson**;

$N_{AF} = 6.02214151 \times 10^{23} \text{ e / mol}$, is the constant which has been determined experimentally by **Avogadro**, having physical meaning given by **Faraday**;

$$k_T = (1 - 2\pi\alpha) = 0.9541493819 \quad (10.22)$$

is the refractive index of inner bodies thermal space as against thermons.

If we divide all terms in equation (10.20) by 2.7, we obtain valid equivalent data for temperature of **1K**, thus:

$$T_{1K} = (\pi / 2) n_{1K} N_{AF} \hat{h} / k_T k_c = 1 \text{ K} \quad (10.23)$$

where $n_{1K} = 1.57 \dots \times 10^9$ is the total number of free quants absorbed and emitted per time unit, by the thermon existent around each electron at temperature of **1K**.

A body temperature that radiates in a wide range of frequencies ($\nu_1, \nu_2, \dots, \nu_i$) can be expressed kinetically under the form:

$$T_K = (\pi / 2) \sum (t_u \nu_i N_{AFi}) \hat{h} / k_T k_c \quad (10.24)$$

where: N_{AFi} is the number of electron on the excitement state i inner the mol;

$$\sum N_{AFi} = N_{AF} \quad (10.25)$$

ν_i is the frequency of thermons, which move surround N_{AFi} electrons.

We obtain the same results from the **Ridberg**'s universal constant of the gases:

$$R = 1.9854 = 2k_c \text{ cal / mol} \cdot \text{K} \quad (10.26)$$

$$R = 8.3164467 = (4\pi / 3)2k_c \text{ J / mol}\cdot\text{K} \quad (10.27)$$

From the formulas (10.26) and (10.27) the temperature of **1K**, results:

$$1 \text{ K} = 2k_c \text{ cal / mol} \quad (10.28)$$

$$1 \text{ K} = 2k_c(4\pi / 3) \text{ J / mol} \quad (10.29)$$

$$(\pi / 2)n_{1K}N_{AF}\hat{h} / k_Tk_c = (4\pi / 3) \text{ J / mol} \quad (10.30)$$

The geometric bearing $2k_c(4\pi / 3)$ between **Joule** and **calorie** shows a physical difference between the reciprocal equal energies within both thermal space (thermon – **cal / mol**) and quantum space (electron – **J / mol**).

The both experimental measurements (**Penzias & Wilson** and **Ridberg**) validate conclusion that temperature of a body must be expressed in **J / mol**, because it is really the *molar density of thermal energy*.

On this conclusion is based the project of the innovative research on **a new energy source**: *thermal energy of the kinetic molecular movement of the fluid bodies*.

Ignoring innovative research results on the thermal spaces around electrons, is another **error** which continues to block the development of technologies that would allow conversion of heat generated by global warming directly into useable electricity for entire world [23].

Annex no.1 shows a section through an atom after *Subatomic Universe* in innovative science engineering.

Annex no.2 is an abstract about innovative research experiment (*now being in progress*) regarding a new energy source from the kinetic molecular movement in fluids [23].

Annex no.3 shows the new experiment, which shown the electricity effect, based on collision between spin cuantoms [20].

Annex no.4 shows the 100 new results obtained by the innovative research, up to date, and 3 new experiments, all abstracted from the author's works shown in References.

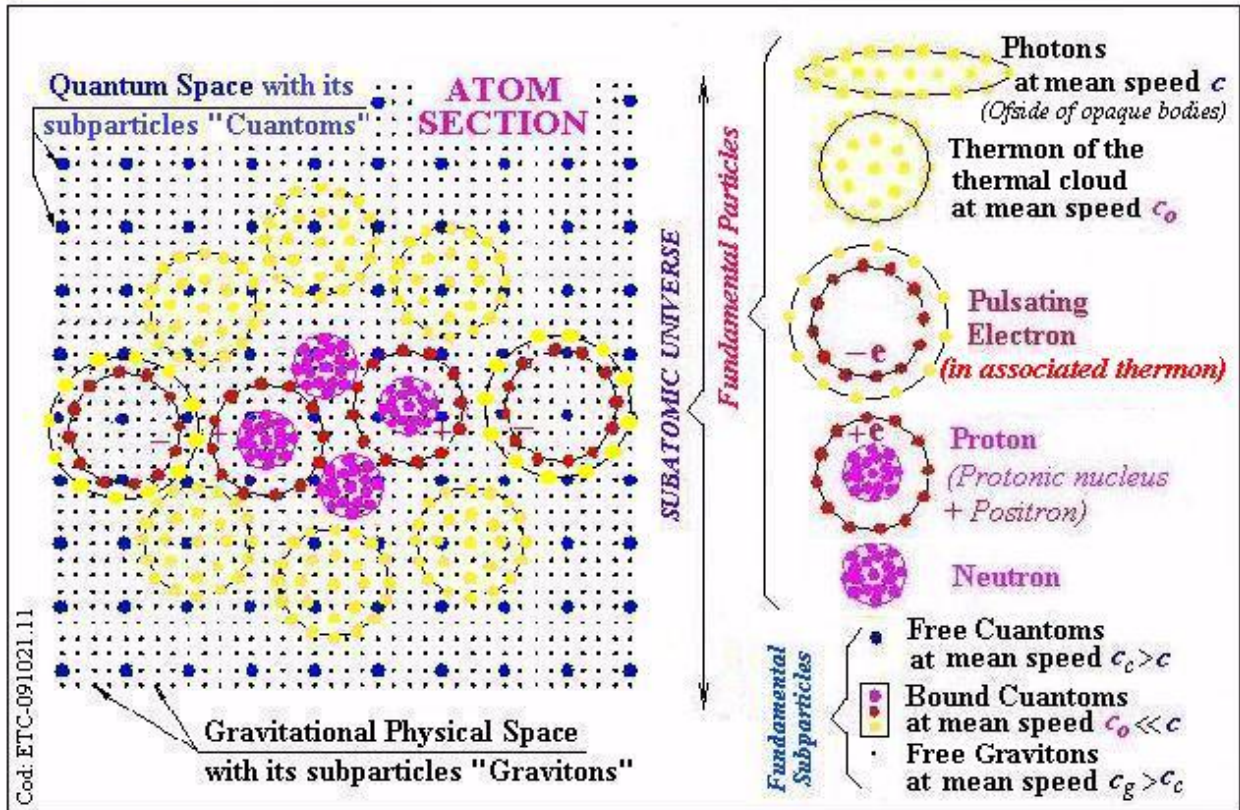
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ANNEX No.1

SUBATOMIC UNIVERSE AFTER INNOVATIVE SCIENCE ENGINEERING



NOTE: The **Subatomic Universe** is a new **physical model** based exclusively on both **physical consistence** and **dynamic stability equations**, able to explain all natural phenomena. It does not include over 200 imaginary / fictional "particles / antiparticles" (*quarks / antiquarks, neutrinos / antineutrinos, gluons / antigluons, Higgs / antiHiggs, preons / antipreons, etc.*) of the „**Standard Model of Modern Physics**” based on both the mathematical games without physical consistence, and on the observation (*for very little fraction of second*) of some photons resulted from collisions of gamma Solar radiation on **atoms** of the **Terrestrial Atmosphere** or in the **particle accelerators**.

In fact there is **a single corpuscle in nature: the graviton**. All upper material structures are **stationary waves inner kinetic clusters**.

Accordingly to the results from the innovative research, „The Supreme Deity” has founded the entire Universe on a single fundamental subparticle (*called **Cuantom***), born from a single type of basic subparticle (*called **Graviton***) with "initial triplet" (**Mass - Corpuscular Energy - Wave Power**) transmitted to the particles that compose them, according to the equations of dynamic stability.

A N N E X No.2

Experiment (*in progress*) on a New Available Energy Source

[Abstract by Iulian Somacescu, from
the Report presented to the 7th Conf. on Industrial Energetics, Bacău, Romania – 2009].

A cubic meter of air - wind at speed of 15 m / s, hitting a wind turbine blades, it may give an energy below 100 J, while the thermo-kinetic energy of air molecules in the same amount of stationary moving at a internal kinetic speed of **343 m/s**, is over 500 times.

Just find ways to extract only 1% of internal air thermal-kinetic energy to overcome than 5 times the energy produced today from all wind farms in the world.

Idea is based on two observations:

a)- energy transferred by air - wind to turbine blades is the vectorial component (*into translation movement*) of the total energy of the air mass, while the thermo-kinetic energy of stationary air is full scalar component;

b)- experimental research was stimulated by Bernoulli measurements, where it was found that the volume of air circulated by serial two tubes, one with dual section over the other, gets double the speed in the tube having the lower section compared to the tube having more large section (*satisfying the equations of continuity of flow and energy*).

Increase vectorial component of energy of 4 times in thin tube compared to the same component in the large tube (*for the same amount of air*), can be explained only on account of thermal-kinetic energy decrease with an equivalent amount of energy.

This claim was validated experimentally by installing thermometers and anemometers within two serial tubes, where the air circulated by a fan, was significantly cooled in lower section than in large section. Calculations based on measurement results confirmed the equivalence of thermal-kinetic energy lost by cooling in the lower section, to the supplementary vectorial energy (*the translation movement*) expressed by the formula:

$$\Delta E = 3m_a \cdot v^2 / 2, \quad (A2.1)$$

where m_a is the mass of air that traverses both tubes in the same period of time.

And other researchers tested the idea along time, aims to create a technology that can extract part of the supplementary energy ΔE , in terms of yield overall positive, yet unattainable goal for someone to date. All previous experiences have been based on introducing additional

turbine in tube of small section and collect an usable momentum in that axis turbines. The failures were due to the fact that every time the power consumed by the fan increases more than the collective power to further the turbine axis, the overall efficiency of the system is always negative.

Remaking those experiences, the author of this communication has found that air cools itself along the thin pipeline, but is close to the original temperature immediately after entrance into the large section.

The conclusion was that **thermal dipole** of thermodynamic theory is formed only in the area of transition from thin tube to large tube, so additional turbine to be located in that area to achieve an extract that power solely to the dipole thermodynamically. This was proved experimentally by simultaneous measurement of temperature before and behind the supplementary turbine located immediately out of thin tube and the change of power absorbed by the fan.

The air remained cold and after passing additional turbine and power / current absorbed by the fan from has remained virtually constant in the two situations: the system with additional turbine and turbine system without additional.

An additional mechanical power at turbine axis has been obtained solely to the thermal kinetic energy of air (*without increasing consumption in fan*). Practically it obtained a first air cooler without supplementary circuit of condensation and without electricity use for.

A second stage experience was the addition of a rotor with blades, instead of separate additional turbine along the shaft of the fan (*extended behind the fan shaft*), with direction "antiventilation" (*as opposed to the orientation of the fan's blades*), so that the rotor antiventilation (*which opposes to penetration of fluid-air*) is rotated in the same sense with the rotor fan, because, as the axis of joint involvement and action to impact air antiventilation blades.

The new situation has been a significant decrease of fan power absorbed, compared to the situation without supplementary rotor, at the same debit of air evacuated.

Another stage experience was to repeat the experience of the previous phase, but install the fan more powerful, able to increase air speed in the tube than to over 100 m / s, in which appeared the phenomenon of "*kinetic tornado*" where rotation unplugged the fan and air circulation is self-keeping and exhaust air cools more.

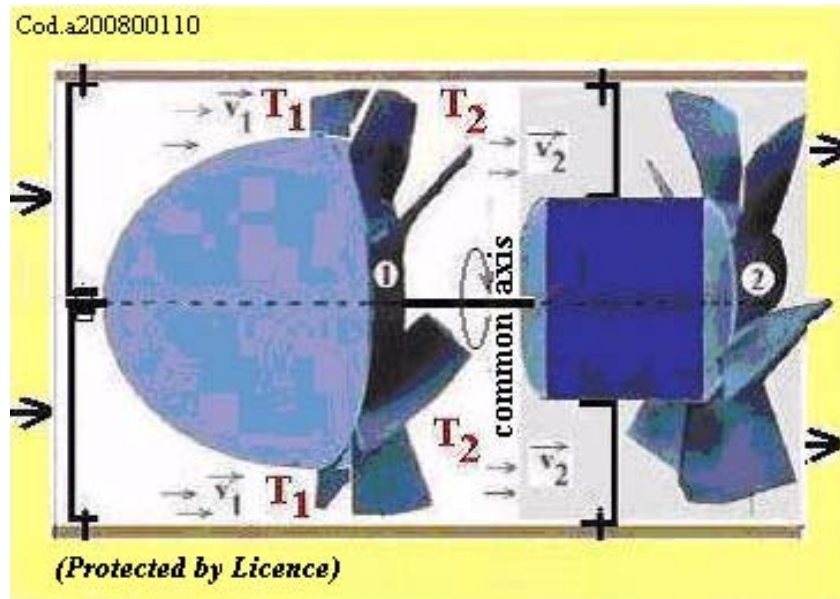


Fig.1 – The axis joint schema with the cooler thermal-kinetic experiment

- T_1 – Aer temperature at entrance
- T_2 – Aer temperature at exit
- v_1 – aer speed in small section
- v_2 – aer speed in large section

Thus obtain a cooler anti-global-warming shown schematically in the Fig.1, which works without electricity use, just on account of the heat in the atmosphere.

Currently experiments are continued with waters instead of air, and to obtain additional electric power cooling simultaneously with anti-global warming, under self-financing circumstances extremely precarious. I am doing my courage with the thought that at the innovative researcher, the hope is the last parting together its bearer.

A N N E X No.3

New experiment reproduces the electricity effect, based on collision between spin structures.

[Abstract by Iulian Somacescu from “*Experience on the Mother Nature of the electricity*”,
Telecom. Review XIV.6(1989)59, C.Z.621.3.029]

In 1988 year - a new concept about the phase effect in collision with moving spin structures demonstrated that the electricity is caused by collision between bound cuantoms inner electric particles, on the one hand, and free cuantoms existent within kinetic waves intercepted from other electric particles, on the other hand, both owning spin movement [equations no.2 up to no.16].

The author has effectuated an experiment with a design to prove the new theory at accessible “macro-level”.

On a rectangular metal frame, installed in a vertical position, provided with lateral guides, and two air-filled basketball have been used.

Firstly each of the two balls have diametrically pierced by one spindle with bearings at both heads, which allow movement of balls roundabout around those axes without significant friction.

Rotation moments for each module were transmitted from one electromotor with switchable spin directions.

At the other end of each shaft was installed a speed control tachometer.

On the outside of the balls were glued sand paper sheets with the task of great friction between the two balls upon impact.

One of the two modules was fixed in the base framework, another was allowed to fall freely from a height of 1.5 meters using vertical guidance channels on the support frame sides.

The results of measurements were recorded and compared on these three situations:

1. Both balls without spin moving

- The mobile ball, after free fall from a height of **1.5 m** over the ball at the base, reached back a height of **1.15 m**.

2. Both balls revolution at the same velocity and same sense of rotation

- The mobile ball, after free fall from a height of **1.5 m** over the ball at the base, reached back a height of **1.36 m**.

3. Both balls revolution at the same velocity, but with opposite spin senses

- The mobile ball, after free fall from a height of **1.5 m** over the ball at the base, reached a height **0.95 m**.

Conclusion

The experience results were consistent with theoretical premises, because:

- at the same spin sense movements of both structures appeared to reject an additional force relative to the situation without spin movements;
- at the opposite spin sense movements of both structures appeared a deficit of force rejection between the two structures, compared to the situation without spin movements.

A N N E X No.4

New results from the innovative research

Results up to date (*abstract from author's works shown at above References*):

Elaboration of new physical model named „**Corusphysics**” (*Corpuscular – Undulatory Systems Physics*), based exclusively on both *physical consistence* and *dynamic stability equations*, able to explain all natural phenomena, in competition to the „**Standard Model of Modern Physics**” (*based on the mathematical games without physical consistence*). Accordingly to the results from the innovative research, at the foundation of the entire Universe is one type of fundamental subparticle (*called **Cuantom***), born from a single type of basic subparticle (*called **Graviton***) with "initial triplet" (***Mass - Corpuscular Energy - Wave Power***) transmitted to the particles that compose them, according to the equations of dynamic stability.

1. **Discovery error** at Planck's Constant ($h = 6.6260693(11) \times 10^{-34} \text{ J*s}$) and corrected it by change with $\hat{h} = 6.626069311 \times 10^{-34} \text{ J}$.
2. **Discovery error** at relativistic equation for mobile mass and corrected it based on physical consistence.
3. **Discovery** structure of **Physical Gravity Kinetic Space (PGKS)** with **four components**:
 - **basic subparticle** (*bricks of Universe*), for which has been maintained name of **Graviton**;
 - free gravitons *kinetic field (FGKF)*;
 - gravitons kinetic field *cluster*, named **Cuantom** (*fundamental quantum subparticle*);
 - pulsating cuantom *waves (gravity waves)*.
4. **Discovery** structure of **Physical Quantum Kinetic Space (PQKS)** with **four components**:
 - fundamental **quantum subparticle**, named **Cuantom** (*the same gravity cluster*);
 - free cuantoms *kinetic field (FCKF)*;
 - cuantoms kinetic field *clusters*, named **elementary particles** (*including photons*);
 - pulsating elementary particles *waves (quantum / electromagnetic waves)*.
5. **Discovery** structure of **Physical Thermal Kinetic Space (PTKS)** with **three components**:
 - thermal particle, named **Thermon**;
 - bound thermons *kinetic field (BTKF)*;
 - coupling thermons *kinetic cloud* around pulsating electrons (*mother nature of electron radiation*).
- 6-10. **Discovery** physical characteristics of the **free gravitons kinetic field (FGKF)**:
 - graviton *mass* $m_g = 2.8793481037 \times 10^{-92} \text{ kg}$
 - mean kinetic *speed* $c_g = 3.0208044856 \times 10^8 \text{ m / s}$;
 - kinetic force, which acts on cuantom, $F_{gc} = 1.9030483009 \times 10^{-39} \text{ kg*m / s}^2$;
 - exchange corpuscular *energy* of the free graviton, $\hat{h}_g = 2.6274799329 \times 10^{-75} \text{ J}$;
 - *refraction* index as against cuantoms, $k_{gc} = 0.999721208$, equal to the **Smithe's** constant.
11. **Discovery** kinetic equivalence of the **Newton's** constant **G**.
12. **Discovery pulsating effect** at cuantoms (*which explains mother nature of the "gravity waves"*).
- 13-20. **Discovery** physical characteristics of the stationary pulsating **Cuantom**:
 - *mass*, $m_c = 7.37249639 \times 10^{-51} \text{ kg}$;
 - *mean number of pulses* per time unit, $n_c = 2.5218344118 \times 10^{41}$;

- **kinetic force**, which acts on free intercepted graviton, $F_{cg} = F_{gc}$;
 - exchange corpuscular **energy** in collision with a free graviton, $\hat{h}_g = 2.6274799329 \times 10^{-75}$ J (the same as FGKF);
 - **mean radius**, $r_c = 1.38066907269 \times 10^{-36}$ m;
 - mean kinetic **interception section** into FGKF, of $5.9886518485 \times 10^{-72}$ m²;
 - **mean kinetic force** which supports from free graviton, $F_g = 1.9030483009 \times 10^{-39}$ kg*m / s²;
 - **dynamic stability equation**.
21. Discovery the wave **depressurizing effect** caused by **diffractionless effect at gravity waves** (mother nature of the Gravity).
- 22-25. Discovery physical characteristics of the free cuantoms kinetic field (FCKF):
- mean kinetic **speed** $c_c = 3.0199623095 \times 10^8$ m / s;
 - **mobile mass** at c_c speed, of $1.474499278 \times 10^{-50}$ kg;
 - exchange corpuscular **energy** of the free cuantom, $\hat{h} = 6.626069311 \times 10^{-34}$ J;
 - **refraction** index as against quantum waves, $k_{cw} = 0.9927026475$.
26. Discovery **pulsating effect** inner FCKF, at all elementary particles, including photons (mother nature of the “quantum / electromagnetic waves”).
27. Discovery **timing effect** at radial and spin movements of bound cuantoms within elementary particles.
28. Discovery **mean kinetic speed** of bound cuantoms, the same inner all quantum kinetic clusters (elementary particles including photons).
29. Discovery **double - polarity** particle type of the electric neutral elementary particles, including photons (mother nature of electric neutrality).
30. Discovery mother nature of the **wave dipole effect** of electric neutral elementary particles.
31. Discovery **single - polarity** particle type of the electron / positron.
32. Discovery **membrane / globular shape of the electron** / positron (mother nature of „single-polarity” effect).
33. Discovery “**comet - shape**” of the photon (cause of easiness of source radiancy).
34. Discovery “**single - cell**” structure type of the proton (a **proton-nucleus** inner an electron-membrane - cause of nuclear disintegrations).
- 35-46. Discovery physical characteristics of the **Proton-Nucleus**:
- **mass**, $m_{pn} = 1.6717107746 \times 10^{-27}$ kg;
 - **mean radius**, $r_{pn} = 1.5355345442 \times 10^{-18}$ m;
 - **mean number of cuantoms absorbed / emitted** during time unit, $n_{pn} = 2.2674962268 \times 10^{23}$;
 - **energy exchanged** with FCKF, during a time unit, $E_{pn} = 1.5024587161 \times 10^{-10}$ J;
 - **kinetic force**, which acts on intercepted free cuantoms, $F_{pnc} = 4.3151548339 \times 10^{-16}$ N;
 - **frequency** of waves generated into FCKF, $\nu_{pn} = 2.2674962268 \times 10^{23}$ Hz;
 - **wavelength** generated into FCKF, $\lambda_{pn} = 1.322129909 \times 10^{-15}$ m;
 - mean kinetic **interception section** for FCKF of $7.4074555607 \times 10^{-36}$ m²;
 - refraction index as against absorbed wave cuantoms $k_{pnc} = 1 / 137.056$, equal to Sommerfeld’s constant;
 - **wave power** generated into FCKF, $P_{pn} = 1.5024587161 \times 10^{-10}$ W;
 - **transparency factor** as against intercepted free cuantoms $O_{pn} = 0.00192$;
 - **dynamic stability equation**.

47-55. **Discovery new** physical characteristics of the **Electron / Positron**:

- *mean number of resonant waves* (i.e. number of excitation – release cycles) during time unit, $n_e = 1.235589973 \times 10^{20}$;
- *energy exchanged* with FCKF, during a time unit, $E_e = 8.1871048 \times 10^{-14} \text{ J}$;
- *mean kinetic force* which supports from free cuantom, $F_{ce} = 2.3513873773 \times 10^{-19} \text{ N}$;
- *mean spin wave radial force*, transmitted to FCKF, $F_e = 29.05350666 \text{ N}$;
- mean kinetic *interception section* for FCKF of $8.8528206242 \times 10^{-30} \text{ m}^2$;
- *refraction index* as against absorbed free cuantoms $k_{ce} = 1 / 137.056$, equal to Sommerfeld's constant;
- *refraction index* as against intercepted resonance waves (*coupled with FGKF by the Magnus effect*), $k_{ew} = 0.9783807071$;
- *wave power* generated into FCKF, $P_e = 8.187104742 \times 10^{-14} \text{ W}$;
- *transparency factor* as against intercepted free cuantoms $O_e = 0.9994$;
- *dynamic stability equation*.

56. **Discovery the FFMUS - four fundamental measure units system** ($kg; m; s; rad$), the same for all conventional measure units system.

57. **Discovery kinetic equivalence of the elementary electric charge**, e expressed in $kg \cdot (m \cdot rad) / s$.

58. **Discovery kinetic equivalence of the electric permittivity** of FCKF, ϵ_0 expressed in $kg \cdot rad / m$.

59. **Discovery kinetic equivalence of the magnetic permeability** of the FCKF, μ_0 expressed in $kg \cdot m \cdot rad / s^2$.

60-66. **Discovery new** physical characteristics of the **Neutron**:

- *mean number of resonant waves* (i.e. number of excitation – release cycles) during time unit, $n_n = 2.271859075 \times 10^{23}$;
- *kinetic force* which supports from free cuantom, $F_{cn} = 4.3234575447 \times 10^{-16} \text{ N}$;
- *energy exchanged* with FCKF, during a time unit, $E_n = 1.50534957 \times 10^{-10} \text{ J}$;
- mean kinetic *interception section* for FCKF of $7.3790325185 \times 10^{-36} \text{ m}^2$;
- *refraction index* as against absorbed wave cuantoms $k_{nc} = 1 / 137.056$, equal to Sommerfeld's constant;
- *wave power* generated into FCKF, $P_n = 1.50525 \times 10^{-10} \text{ W}$;
- *transparency factor* as against intercepted free cuantoms $O_n = 0$;
- *dynamic stability equation*.

67-75. **Discovery physical characteristics of the pulsating Photon**, depending on frequency ν_γ :

- *dynamic mass* at c speed (*without stationary state / mass*);
- sphere-shape equivalent *mean radius*;
- *mean number of excitation – release cycles* during time unit;
- *kinetic force* which supports from free cuantom;
- *energy exchanged* with FCKF, during a time unit;
- *refraction index* as against absorbed wave cuantoms;
- *wave power* generated into FCKF;
- *transparency factor* as against intercepted free cuantoms;
- *dynamic stability equation*.

76. **Discovery diffraction effect** of dipole waves behind the intercepted particles, which blocks the alternative / dipole forces in the FCKF.

77. **Discovery mother nature of nuclear forces** (*diffractionless of dipole waves at very short distance behind the intercepted particles*).
78. **Discovery** mother nature of the **inertia** mass / force.
79. **Discovery** mother nature of the **coupling decrease effect** in accelerating fields (*runway increasing into particles accelerator*).
80. **Discovery** mother nature of the **magnetism effect**.
81. **Discovery** mother nature of the **electromagnetic induction effect**.
82. **Discovery** mother nature of the **selfinduction effect**.
83. **Discovery** mother nature of the **deflection of light at the Sun nearness**.
84. **Discovery** mother nature of the **red shift** of the far stars light.
85. **Discovery** the **phase effect** (*mother nature of the planetary perihelion advance*).
86. **Discovery** a **new energy source** (*kinetic molecular movement within fluids*).
87. **Discovery** cuantoms cluster / cloud around electrons (*named "Thermon"*) caused by disintegration of photons after impact with opaque bodies.
88. **Discovery** stationary thermal waves at speed c_0 , inner bodies (mother nature of thermal communication inner live bodies).
89. **Discovery mother nature of temperature** (*molar density of thermal energy / thermal pressure*).
90. **Discovery** kinetic **equivalence of Kelvin temperature degree, 1 K** expressed in **J / mol**.
91. **Discovery parity division** of thermal energy between thermons (*expressed in cal / mol*) and electrons (*expressed in J / mol*).
92. **Discovery** mother nature of **burning disintegration** of bodies.
- 93-100. **Discovery** physical characteristics of the **Thermon**:
- **existence only inner bodies** around electrons;
 - **transformable in photons** after its ejection by electron movement;
 - **indiscernible** individually as particle, because outer body, it becomes photon at speed c ;
 - **mean radius**;
 - **mean number of excitation – release cycles** during time unit;
 - **frequency** of stationary thermal waves at speed c_0 , inner bodies;
 - thermal stationary **wavelength**;
 - **kinetic force** which supports from environment;
 - **energy exchanged** with environment during a time unit;
 - refraction index as against absorbed cuantoms from photons disintegration;
 - reactive **wave power** generated into environment inner bodies;
 - **electric resistance** resulted from the collisions with accelerated electrons (*mother nature of superconductivity*);
 - **transparency factor** as against intercepted free cuantoms;
 - **dynamic stability equation**.
- i. **New experiment** (*of Lebedev type*) on **diferences photon and electromagnetic waves**.
- ii. **New experiment** (*of Sagnac type*) on **dependency speed photon on source speed**.
- iii. **Experiment** on macro-model for **electricity effect**, based on collision between spin structures.
- iv. **Experiment** on **new energy source**.