

# Critic of notions of official physics concerning a microcosm

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## Abstract

In the article a critic of the main notions of a modern physics is given

It is impossible to number all incidents of official physics in a problem of elementary particles; therefore here we shall give only some. For example, official physics will use mathematical manipulations, the physical sense which one is not clear to it. The justification is served with that the end results of calculus coincide with experiment. The experiment is professed as a criterion for true. However, that mean outcomes of experiment also are unknown and depend on initial programming of brains both experimenters and subsequent interpreters. In this book is convincingly shown, that it is possible to explain outcomes of many experiments on another and in this chapter the examples of alternate interpretation of experiments are given.

**The theory of atom.** The fathers of a quantum mechanics in a start of past century in a hurry built the theory of atom and have not found time closely to analyze, what for them was received. I shall indulge to myself in pleasure to push domino effect to look, as this theory is scattered up to the basis.

The official energy levels of atom of Hydrogenium are shown on a figure 13.5 [1] of chapter 13 [1]. From this figure it is visible, that near to a limit of any spectral series the main quantum number aims at perpetuity, therefore slightest external action on atom in this condition should result in of its ionization. However, the ionization can be watched only near to a limit of a spectral series Lyman. If the ionization was watched near to a limit of spectral series arranged in infrared range, it will break a law preservations of energy. Radius of atom under the official theory is proportional to a square of a main quantum number. Therefore at minor heating of bodies near to a limit of a spectral series arranged in infrared range, the sizes of atoms should be increased in hundreds and thousand time, that contradicts both experiments, and any notions about a constitution of bodies. This fact demonstrates an inaccuracy of the applicable formula for radius of atom depending on value of a main quantum number. A figure 13.4 [1] and 13.2 [1] adequately mirror outcomes of the atom theory new physics, as concerning levels of energy of atom, and its sizes depending on a degree of excitation.

Now we shall be disassembled in principled differences of «normal» atoms from of rydberg atoms. On notions of new physics the electron in «normal» atom in any condition has the same angular momentum equal  $\hbar$ . At occluding a photon by atom the electron passes from a ground state with a circular orbit in an exited state in which one orbit of an electron elliptical at the expense of energy of an absorbed photon. In chapter 13 [1] is shown, that at the expense of quantized change of an eccentricity of electron orbit the atom is capable to radiate any quantity of photons, each of which has angular momentum  $\hbar$ . Naturally, that the common energy of these photons is peer to energy of initial excitation of atom. Therefore we shall call «normal» atoms monomomentum, meaning, that the orbital electrons in these atoms always have a constant angular momentum, equal angular momentum of a mobile electron, that corresponds to a law of conservation of angular momentum. Rydberg atoms in essence differ from monomomentum by that at multiquantum occluding of radiation all angular momentum of absorbed photons are added to angular momentum of an electron, therefore orbit of an electron, remaining circumferential, augments radius proportionally to square of a main quantum number and corresponds to the official theory of atom. These «abnormal» atoms we shall call multimomentum, meaning, that the orbital electrons in them have aliquot value of angular momentum  $n \hbar$ . Apparently, to follow to a law of conservation of angular momentum, the multimomentum atoms should be radiated equally so much by photons, how many they have used during multiquantum occluding. The radiated photons can have other energy as against absorbed. In this case the multimomentum atom can be turn intoed

monomomentum and to prolong radiation of photons by a customary way to reduce an energy balance. The sizes of rydberg atoms about 20 microns (chapter 13.5 [1]) is already macro objects. Their main quantum number comes nearer to an ionization limit, therefore at a small external action they are ionized. The existence of rydberg atoms once again confirms an inaccuracy of official energy levels of monomomentum atoms.

**Spin.** "A spin - own moment of momentum of elementary particles having the quantum nature and unconnected with travel of a particle as whole". "Physics of a microcosm", "Soviet encyclopedia", M, 1980, page 393.

The orthodox physics associates concept of a spin to a own moment of momentum of elementary particles not deciphering its physical content, since in this case it is necessary to suppose gyration of particles with superlight velocities. Therefore it is necessary to enable presence of an angular momentum that inside a particle nothing is gyrated, and if is gyrated, it is not known, how! Nay, consider, that such miscellaneous on a particle mass, as an electron, proton, neutron, neutrino have an identical spin equal  $1/2\hbar$ . In this case electron should be in 2000 times larger than proton, and the neutrino should such of the grandiose sizes, that its size twice exceeds the sizes of atoms. At the same time, the theory of relativity is unconditional requires the dot sizes of elementary particles, that explodes also its fundamentals.

New physics convincingly demonstrates by several independent paths, that the spin of an electron, for example, is peer 1, instead of  $1/2$ . A consequence it for official physics disastrous since at once fall a fundamentals of a quantum mechanics: a principle of exception Pauli, division of particles into fermions and bosons, hypothesis of the Goudsmit and Uhlenbeck, interpretation of a de Broglie formula and much another. For example, the de Broglie formula essentially is only formulation of a moment of momentum, simultaneously asserting, that this moment («spin») is peer 1 for all microparticles including for an electron and disclaims existence of fermions.

By dividing all particles on those, which one have a "half-integer" spin and "whole" (including zero!) a spin, from a light arm of the Pauli (1940) have allotted them and miscellaneous character of a statistics, these particles obey to which one. With an integer spin obey to a statistics of a Bose-Einstein (bosons) - in the same state there can be any number of particles. With a half-integer spin obey to a statistics a Fermi-Dirac (fermions) - in each quantum state there can be no more than one particle. Whence individualists-fermions as against the collective farmer-bosons know particulars about a state of the neighbors (and where boundaries them "of residing"?) normal man to understand can not. Whence qualitative leap appears so at small quantitative change of a own angular momentum of a particle too is vague. The physical sense of indicated statisticses is consist, that the same name charged particles are repulsed and try to avoid presence of the neighbours, and the particles exhibiting an affinity (attraction) to each other attempt to collect in a heap. That anything similar in a macroworld does not exist better to keep silent, since the official science considers, that the Creator of a microcosm did not know, that the Creator of a macroworld creates.

Official physics asserts, that at displacement by places of two particles with an integer spin their wave function does not change the sign (is symmetrical), and at shuffle of two particles with a half-integer spin their wave function changes the sign (is antisymmetric). Around of this statement piled up a series of speculations: a principle of identity, Pauli's exclusion principle, exchange interaction. And now we shall presume displacement by places of a particles unknown a number of times. What sign will have their wave functions?

The quantum mechanics, stating "spreading" of wave packets of particles as a matter of fact states a spreading in space of particles. Criticizing a classic mechanics concerning a motion of an electron around of a nucleus, the quantum mechanics considers such constitution of atom as absurdity, since the electron should continuously radiate energy (under the theory of the Maxwell) and to fall on a nucleus. Instead of doubting of applicability of the theory of the Maxwell for given case (electrodynamics of the Maxwell does not allow at all quantumness of light, therefore is untrue in the initial backgrounds), the quantum mechanics exchanges apparent absurdity by even more absurd notions, as a matter of fact disclaiming a classic mechanics in a microcosm. At the same time at each comfortable case uses results just of classic notions. One of examples of absurdities of a quantum mechanics: "The principle Pauli testifies to mutual influence of particles which are taking place in close states, even at absence between them of power interactions" (Physics

of a microcosm, M., 1980, page 64). How it is possible to influence against each other without power interactions?

**Mathematical formalization of science.** The separation of a modern physics from common sense, which one is substituted in only mathematical exposition of appearances, gives in impossibility of reverse translation from the language of mathematics into the language of physics.

"Exposition of interactions of elementary particles... is bound to gauge field theories. These theories have the advanced mathematical apparatus, which one allows to yield calculations of processes with elementary particles (at any rate, is basic) on that a level of austerities, as well as in a quantum electrodynamics. But in the present view the gauge field theories have one severe deficiency, blanket with a quantum electrodynamics, - in them during calculations the indefinitely major values, not having physical sense, for some physical quantities are gained. With the help of special reception of redefinition of apparent quantities (mass, charge) - overdetermination (renormalization) - it is possible to remove perpetuity from final outputs of calculations (so it is possible far to go, more correctly, already come - V.K.). In the most well learned electrodynamics it has no an effect yet for the consent of predictions of the theory with experiment. However procedure of a renormalization - is clean formal bypass of difficulty existing in the apparatus of the theory, which one should have an effect on any level of precision on a degree of the consent of calculations with measuring". "Physics of a microcosm", "Soviet encyclopedia", M., 1980, page 493-494. Mathematics is all-sufficient also does not require for itself of any conformity in a substantial world. Any delirium is easy for shifting into the language of mathematics and if thus its internal logical fundamentals are not disturbed, this delirium can be given for scientific achievement, though the mathematical calculations are not scientific achievement, and mathematics not science, and faster prostitute, comfortable for service of sections of science practically dispossessed of physical sense.

The only mathematical model approach to the solution of physical problems frequently has by a corollary substitution of the physical content mathematical. It is considered, that thus the physical sense remains to equivalent mathematical sense. However it does not correspond to a real that is visible from following examples.

Let's suspect, that the physical object has a certain parameter mattering  $Y$  (it there can be a velocity, energy, impulse etc.). If lay up value  $Y$  in a quadrate and then to extract a square root, we shall receive  $\pm Y$ . Physically it means, that the given object has simultaneously both positive and negative velocity, identical on an absolute value, i.e. its summary velocity is always peer to zero point. That concerns to energy, impulse etc. We have received result exact from a point of view of mathematics, but absurd from a point of view of physics. The physical sense  $Y^2$  is, that parameter  $Y$  sums with itself of  $Y$  of time. If we shall sum positive values  $Y$ , we shall receive  $Y^2$ , and if we shall sum negative values  $Y$ , we shall receive  $(-Y)^2 = -Y^2$ . It is exact from a point of view of physics, but absurd from a point of view of mathematics result, as  $(-Y)^2 = Y^2$ . From a physical point of view, the evolution means a finding of that quantity, which one summed up with herself a number of times, numerically to equal this quantity, therefore  $\sqrt{-\Psi^2} = -\Psi$ . The mathematical sense of evolution of negative number consists in deriving an imaginary number. Examining results of correct mathematical manipulations there is a temptation to insert in them physical sense, for example, the result of evolution can be interpreted as mirror symmetry of a world, and by receiving imaginary mass, reach before existence of tachyons. Apparently, that the similar deductions and method of their deriving are basic erroneous because of a nonequivalence physical and mathematical manipulations.

The mathematician will record:  $2+2=4$  also considers this equality valid. But physicist considers as its error, and valid recognizes other equality:  $2+2=4 \pm \Delta$ , where:  $-\Delta$  a defect of mass, which one arises in a static condition of a system at formation of some body from separate parts (is specially noticeable in nuclei of atoms), and  $+\Delta$  increase of mass, which one arises in a dynamic condition of a system created from separate parts (specially noticeable multiple increase of mass in «elementary» particles). In order to prevent misunderstanding it is better not swarm up with one's the rules in unfamiliar area. The mathematician will record equalling, which one considers valid:  $2+2 = 2 \cdot 2$ , but from the physical point of view this expression contains an appreciable error. The overwhelming majority of physical values has definite dimension, therefore it is impossible, for example to equate four meters to four square meters. The principled difference of physics from

mathematics is, that non-dimensional values in the nature do not meet. Any non-dimensional value in physics as a matter of fact is formal ratio of two dimensional quantities. The orthodox here will put an as an example favourite non-dimensional fine structure constant and will make an error. He does not know value of an own angular momentum of an electron and orbital angular momentum, and the fine structure constant is ratio of these moments.

Official physics widely will use expansion in Taylor series «on small parameter» to receive the «necessary» outcome. A Taylor series of any physical sense has not, and contains only mathematical sense: the differentiable function in a point «a» can be presented by an infinite series. The orthodoxes in a barbarian way chop off a head of this expansion in series inclusive 2-3 maiden terms and attempt to find any physical sense in it stump. For example, official formula of a total energy of a microparticle:

$$W = m_0 c^2 \left( \frac{1}{\sqrt{1 - \frac{V^2}{c^2}}} - 1 \right) \quad (1),$$

where:  $m_0$  - rest-mass of a particle. At  $V \ll c$  the expansion in series (1) «on small parameter» with the registration only of maiden two terms gives:

$$W = \frac{m_0 V^2}{2} \quad (2)$$

whence draw a conclusion, that the total energy not relativistic particle is described by the classic formula.

Let's consider the formula (1) from the point of view of common sense. Apparently, that under condition of  $V \rightarrow 0$ ,  $W \rightarrow 0$ , i.e. the particle has not energy. That this outcome to agree with official, is necessary a condition  $V \rightarrow 0$  to substitute in (2) and again to receive a zero-point energy of a particle. At doubts it is better to make numerical calculus. Substitute in (1)  $V = 1$  m/s and discover  $W$ . If the doubts have remained, make «small parameter» even less, for example,  $10^{-10}$  m/s.

**Interactions.** The new physics distinguishes gravitational, gravidynamic, electrostatic and magnetic interaction. The orthodox physics considers, that exists gravitational, "strong", "weak" and electromagnetic interaction (which one combines electrostatic and magnetic interaction). Thus it states, that the interaction is transmitted through the relevant field. A field in notion of official physics are the particles: gravitational - not detected gravitons (the new physics negates their existence), electromagnetic - photons, "strong" -  $\pi$ -mesons, accountable for interaction between nucleons and the gluons (them do not discover in a free view). "The strong interaction of quarks is carried out with the help of an exchange of gluons - massless dot electrically neutral particles with a spin 1". (Orthodoxes distinguish eight views of gluons - V.K.). "Subatomic physics", Publishing House of the Moscow university, 1994, page 86. The gluons are responsible for interaction between quarks (them too do not discover in a free view) from which one, as guess, the nucleons consist. "Now consider, that all hadrons consist of quarks - unstructured, dotted-like ( $<10^{-18}$  cm) particles with a fractional charge. The quarks are fermions and have a spin 1/2 (How such major angular momentum manages to climb in such small sizes? - V.K.). A baryon charge of all quarks 1/3". "Subatomic physics", Publishing House of the Moscow university, 1994, page 83. "Weak" (accountable for decay of elementary particles) - intermediate vector charged bosons  $W^+$  and  $W^-$ , mass of each of them is almost peer to nuclear mass of uranium!

By and large, in a modern physics each elementary particle represents the relevant field, by a carrier of activity which one it is. "The transition to a uniform wave-corpuscule point of view is carried out in a quantum theory of a field through secondary quantization. At carrying out of secondary quantization to an actual physical field are put in correspondence the discrete quanta adequate different possible states of a field. In the terms of this new physical object - the quantized fields manage to be described and particle. The quantized field, more precisely, quantum of this field is compared to each elementary particle. For example, the electrons and positrons - quanta of an electron - positron of a field and photons - quanta of an electromagnetic field appear on an equal basis. They have

particular energy, impulse and other physical performances. The quanta of different fields differ from each other by some of these performances: in mass, electric charge, spin etc. So, mass of photons and their electric charge are peer to zero point (how thus the photon will have an angular momentum? - V.K.), while for electrons they are different from zero point". "Physics of a microcosm", "Soviet encyclopedia", M., 1980, page 315. Here orthodoxes forgets, that "carriers of a field" - virtual (unobservable) particle, therefore origin for them of mass, the energy and electric charge are brazen violation of the fundamental laws of the nature.

As is specifically quanta of that or diverse field transfer interaction between particles for official physics remains by a riddle. With a major strained interpretation still it is possible to suppose, that the particles emit field quanta, which one "bobbing" in the associate on interaction give in its repulsion (we shall enclose eyes that thus the associates should "to thaw" on eyes before complete disappearance). But how the particles manage to be attracted to each other, moreover and on precisely to the same law, as well as are repelled? Explanation that I throw a boomerang, standing by a back to the associate, which one, by circumflying, will knock standing to me by a back of the associate on forehead and will push him in my side, any does not withstand critics.

On notions of official physics the gluons retain quarks in nucleons even more artful - the more than distance between particles, the stronger is the attraction between them (similar trick the Einstein, by entering in has the equations of a gravitational interaction so-called  $\Lambda$ -terms incremented at increase of distance between bodies and relevant to a repulsion between them. The reason simple - Einstein liked the stationary Universe - problems less, but strongly law of gravitation hindered). Such type the focuses, certainly, allow to gain that is necessary, but true comprehension of appearances do not add. Thus, for the statement of the exchange mechanism of interaction of bodies it is necessary in details to uncover this mechanism or, in case of failure, to be gathered of bravery and to refuse an exchange interaction.

Here opportunely to recollect "strange" particles, to which one refer hyperons on that warrant, in particular, that, for example, mass  $\Lambda^0$  on 37.7 MeV is more than summary masses of a proton both pion  $\pi^-$  and of defect mass linking these particles as if is not present. It is a vivid example of groundless transport of interaction of nucleons in nuclei of atoms on interaction in "elementary" particles. Series usage of this error has given in completely absurd notions about the constitution of particles, when consider, that the light particles consist from heavier, i.e. the part is more whole.

By the elementary experiments it is possible to show, that two electrically of charged ball do not interchange photons in any diapason of energies of these photons. To ensure apparent electrostatic interaction of these balls at the expense of a mutual irradiation with photons, a radiated power and energy of photons should have the very major values. The photons of a radio and optical range at once pass, since these two balls should shine so, that any dark glasses will not help. The photons X-ray and  $\gamma$ -diapason also pass, differently Coulomb would die, by not having time to formulate his law. The reference to "virtual" photons more is similar on manipulation extrasensory individuals, which one "see an aura", inaccessible to observation mere mortal. The screen which is not dropping actual photons appears by transparent for "of virtual photons" to ensure electrostatic interaction through a wall.

Orthodox physics negates existence of any orbits of electrons in atoms. On its notions at presence of such orbits the existence of atoms will become impossible because of energy loss by electrons on radiation at orbital motion. Besides the Schrodinger equation basically prohibits orbital motion of electrons in atom. However, at explanation of fine structure of spectral lines official physics attracts a spin-orbit interaction being not confused by an at all obvious inconsistency with the probabilistic description of behavior of an electron in atom.

The Compton wave length determines distance, on which one the virtual particle of mass  $m$  from a point of "birth" can be deleted:

$$\lambda_0 = \frac{\hbar}{mC} \quad (3).$$

On notions of a modern physics the electric charges interact by an exchange of virtual photons. As mass of a photon starts to equal zero point, the electric field acts on indefinitely major distance. An appreciable bloomer - particle mass here is supposed enters and expression:

$$\hbar = mCr \quad (4).$$

By substituting (4) in (3) we shall discover, that the Compton wave length of a particle is peer to radius of its screw trajectory and in  $2\pi$  times less wave length de Broglie for this particle:  $\lambda=2\pi r$ . Therefore electrostatic interaction can not be carried out "virtual" photons.

**Defect of mass.** As we saw, the nuclei of atoms represent statically stable system of nucleons. Therefore diminution of a potential energy of this system resulting in to its strengthening gives as a result of operation of law of maintenance of energy in diminution of mass of all system (defect of mass). The official physics very effectively has utilized this circumstance and has reached major successes in exposition of nuclear processes. By believing, that the elementary particles represent also statically stable systems (new physics considers them dynamically stable) physicists have transferred "defect of mass" and on them. In result it was necessary to constituents of "elementary" particles to assign huge masses (that the defect it has covered a huge binding energy) and to introduce completely not clear (except for the authors) "weak" interaction, that how to explain decay of particles, as the static equilibrium in essence is more stable, than dynamic, which one is relative and opportunity of its infringement more often - matter of time. "In a relativistic mechanics mass is not the additive performance of particles system. When some particles are joined, forming one stable composite state, thus the surplus of energy (equal binding energies of system)  $\Delta E$  is stand out, which one corresponds to mass  $\Delta m = \Delta E/c^2$ . Therefore mass of such composite particle is less than the sum of masses of particles, forms it on quantity  $\Delta E/c^2$  (so-called defect of masses)". "Physics of a microcosm", "Soviet encyclopedia", M., 1980, page 244. The thoughtless transport of properties of one object on others is characteristic for official physics, for example, excited atom on normal atoms, static objects on dynamic etc.

**Virtual particles.** The indeterminacy relation of the Heisenberg has legitimated complete permissiveness in official physics. As was shown earlier, the new physics, basically, does not object to indeterminacies of the Heisenberg, but insets in them quite certain narrow physical sense. Their dogmatic usage is very attractive, since allows the orthodoxes "to explain" anything you like, not specially being tormented antilogy of common sense. The effect of the Compton directly contradicts an indeterminacy relation since in this case at a dispersion of photons on electrons are strictly maintained simultaneously energy and impulse of particles.

Most absurdly from a point of view of new physics such "corollary" from an indeterminacy relation of the Heisenberg, as "virtual particles" - drawing through with "of a back entrance" heretical of thought about the breach of justice of all fundamental laws of the nature.

"Though we rigidly know, that we never will manage to find out violations of law of maintenance of energy, the system, nevertheless, can on short time "to take up" energy on "to the side". (This "side" is alive by virtual particles the vacuum (emptiness) - it is necessary to suppose and such nonsense. - V.K.). But the amount by this "take up" energy should be a little that it could not be found out during measuring. (the business is approximately how for the dishonest cashier, which one "takes up" in cash department money for own needs, but returns them earlier, than the failure to deliver can be detected). In case of interactions... (electromagnetic - V.K.)... It is possible, therefore to consider, that the photons are present here during very short time, though any additional bound with them energy is not discovered. Such "fleeting" the particles are termed as virtual; it is possible to tell, that the viewed processes happen to participation of virtual photons". "Fundamental structure of a matter", "World", M., 1984, page 79.

Completely clear with a point of view of classic physics the Compton effect by official physics is treated so: (Physics of a microcosm, M., 1980, page 133) in the beginning photon is immersed by an electron with formation of a virtual electron, and then this virtual electron is again disintegrated on an actual electron and photon, but already having other energies and currents of traffic, i.e. dispelled. In this case it is not clear, how again the electron and photon formed is "remembered" with all parameters of a motion of an "old" electron and photon. As on indeterminacy principles energy and impulse of a virtual particle are indefinite, i.e. it knows about the ancestors nothing.

By official physics turn out the whole arsenal of means of adjustment under desirable outcome, if the input datas contradict anticipated:

1. Chart of the Feynman,
2. Physical vacuum and virtual particles,

3. Renormalization and regularization,
4. Fine structure constant,
5. Perturbation theory and radiation corrections.
6. Expansion in series «on small parameter».

I advise to the reader more close to be acquainted with technique of applying of this arsenal to be convinced that official physics requires a urgent operative measure.

The indeterminacy principle of the Heisenbergs contact canonically linked variables: coordinate - impulse, energy - time etc. But when the orthodoxes esteem a virtual charged particle, whence it has an electric charge? For electric charge there is no canonically linked variable, therefore, for example, the virtual electron contradicts the idea of an indeterminacy relation. If we shall begin to esteem canonically linked variables, as the vectors, complexities at once increase. For example, the momentum vector is directed to the side of motion of a particle, and coordinate is a scalar value. In outcome, the product of vector on a scalar is collinear vector, but the indeterminacy relation requires, that this product should be a scalar (if a constant of the Planck to consider as a scalar). New physics asserts, that the constant of the Planck is vector (moment of momentum of a particle), directional perpendicularly planes of rotation on a screw trajectory, but official physics it does not know. The complexities interpretation of an indeterminacy relation are connected also that, for example, in a microcosmos the energy changes by quanta, but on an indeterminacy relation and the time should change by quanta of miscellaneous value. With what in it physical sense, nobody knows.

There is a point of view that virtual particles substantially do not exist and are necessary only for the theory. On it object (Physics of a microcosm, M., 1980, page 133), what after waiving a classic continuous field of a faraday-maxwell (theory of the Maxwell consider insecure?!) as mismatching reality (photons - particle) is fatal the recovery to the theory of interaction of particles with each other apart without any of the intermediator (it juggle with of the facts - V.K.). In this objection there is a logic error: though an electromagnetic field it is discretely, but the electrostatic, magnetic, and gravitational and gravidynamic field is all warrants to consider as continuous, i.e. intermediators of interactions. Therefore it is impossible to recognize the mechanism of interaction as obligatory bobbing by foreheads of particles the each other is single possible. Even the concussion of particles as a matter of fact happens through a continuous field, instead of directly. The interaction of particles without the intermediators is possible only for absolutely solid blobs of the final sizes without any inner structure. If these blobs of the dot sizes (as it are stated by official physics), i.e. have not at all any sizes, and to hit each other they can not. As the virtual photons should exist indefinitely long, since they, in opinion of official physics, realize a Coulomb interaction, which one acts on indefinitely major distance, their energy should be strictly certain ( $\Delta E=0$ ) to correspond to an indeterminacy relation. But whence arise ideal monochromatic photons, why their energy is identical to all electrostatic fields also to that it is peer? On these problems there are no answers, that urges to reject existence of virtual particles and together with them interaction by an exchange of particles.

Credo of a modern physics is legibly formulated in the book "Fundamental structure of a matter", "World", M., 1984, page 81: "We should be always ready that the laws considered quite universal, as they were confirmed at all experimental checkouts, can appear inapplicable in new, yet not explored area of physics". At such by prior (before experiment) readiness to refuse all reachings of physics this science is at all not necessary, it is easier to exchange by its mysticism let and pseudo-scientific.

Though only some examples of severe errors touched bases of a quantum mechanics will below be given, but it is quite enough of them to recognize a quantum mechanics error as a whole. As is known, the quantum mechanics considers an angular momentum of an electron ("spin") equal  $\hbar/2$ . If it will be peer  $\hbar$ , at once it appear by an error statistics a Fermi-Dirac and Bose-Einstein, Pauli exclusion principle and set of other corollaries. Let's shown, that the spin of an electron is peer  $\hbar$ . The experiments have confirmed that the wave length of a mobile electron corresponds to a de Broglie formula:

$$\lambda = \frac{h}{mV} \quad (5).$$

On notions of new physics the mobile electron is gone on a screw trajectory, for which one the step of a screw line is peer to a circumference of a cross-section, therefore:

$$\lambda = 2\pi \cdot r \quad (6),$$

where  $r$  - radius of a screw line. Comparing (5) and (6), we shall discover:

$$\hbar = mVr \quad (7).$$

From (7) is visible, that "spin" of an electron its not any supernatural property, and ordinary moment of momentum.

The equilibrium condition of an electron on an orbit of atom of hydrogen is an equality of a centrifugal force and force of an electrostatic attraction to a proton:

$$\frac{mV^2}{r} = \frac{e^2}{r^2}, \text{ whence } V = e\sqrt{\frac{1}{mr}} \quad (8).$$

By substituting (8) in (7), shall discover expression for  $\hbar$  :

$$\hbar = e\sqrt{mr} \quad (9).$$

If to substitute in (9) numerical values of constants, we shall receive tabular value  $\hbar$ . Therefore and the bound electron still has same angular momentum, as for a mobile electron. This deduction - natural corollary of a principle of conservation of moment of momentum. If we shall untwist a rock on a rope and we shall release a rope, the angular momentum of a rock does not fade anywhere, and remains to constant, that is well shown at the analysis of a figure 1.1. Presence of a magnet moment of a mobile electron to an equal magneton of the Bohr and ionization energy of atom of hydrogen separately confirm, that the angular momentum of a free and bound electron is identical and is peer  $\hbar$ . As "spin" is simply angular momentum of a particle, depending on its quantity the behavior of particles with miscellaneous "spin" can not considerably vary. Therefore concepts of "bosons" and "fermions" also are erroneous; therefore, the principle of elimination of the Pauli is erroneous also. The principle Pauli has not physical sense also because according to it the particles should act against each other, but it is impossible to point neither force of this action, nor bound with activity of this force "energy of Pauli".

The misunderstanding of that fact that  $\hbar$  is an angular momentum of a particle gives in one essential error of a quantum mechanics. Determining an angular momentum of a mobile electron and bound in atom of hydrogen ("S-electron") and gaining identical values, the quantum mechanics should state, that the S-electrons have not an angular momentum. However, the same value of an angular momentum of a free and bound electron is a corollary of a principle of conservation of moment of momentum, which one the quantum mechanics neglects (angular momentum of a particle can arise it is not known whence and to vanish it is not known where, it is not enough of that, on notions of a quantum mechanics, it can have even multiple values). Therefore quantum mechanics states completely improbable behavior of a S-electron in atom: it can occur that till one, till other side from a nucleus, being moves on a straight line to not have an angular momentum. Thus there are at once two inconsistencies. One interior inconsistency also is bound that the wave function of a S-electron spherically is symmetrical, i.e. the electron can be in any position concerning a nucleus, and not just on one straight line, therefore, should have an angular momentum. Other inconsistency is bound that in a viewed case the S-electron introduces in precision an electric dipole, which one should radiate electromagnetic waves and to lose energy. When the quantum mechanics with major pleasure criticizes planetary model of atom, it does one more error. The matching of an electric dipole, for which one varies an electric moment (varies either quantity of a charge or shoulder of a dipole) with a motion of a charge on a circle not correctly in the several relations. At first, the dipole radiates frequency an equal oscillation frequency of the dipole, but the charge gains for one oscillations two positive and two negative acceleration, therefore at positive acceleration the radiation misses, and is watched only at deceleration of a motion of a charge. At negative acceleration, directional in one side half of wave is radiated, and at negative acceleration, directional in other side - the second half of wave of a reverse polarity is radiated. Otherwise dipole should radiate electromagnetic waves with doubled frequency. Therefore judgement of official physics that the electric charge radiates at acceleration of any sign is erroneous. Secondly, orbital motion of electric charge views in orbital plane. Thus it seems that the charge oscillates, as in an electric dipole and in this case radiation should be guided to us. In a perpendicular direction the radiation should miss. The spectator in this place, on the contrary, will state, that the radiation should go to him, and in our direction misses. Look at an orbit not sideways, and from above and the matter in dispute at once will vanish

because from here it is visible, that the motion of a charge on an orbit of any analogy with an electric dipole has not. Here I shall remind, that on a superconducting ring the current goes by years without change, though at the expense of radiation should promptly be stopped on notions of the orthodoxes.

Thirdly, at orbital motion of an electron around of a nucleus any acceleration generally misses, as the new physics considers. As the official physics considers, there is absent a negative acceleration (on its notions a charge in this case will have a positive centripetal acceleration). It arises, as the corollary of error notions, that on a charge acts force of "connection" provocative on the second Newton's laws a centripetal acceleration. The centrifugal force (inertia) acts on "connection", i.e. it is not clear on what acts. On notions of new physics an attractive force and centrifugal force both act on a charge, is mutual are counterpoised and on the second Newton's laws of any acceleration do not cause. In this case motion of a body on a circle completely is similar to a motion of a massive blob on a horizontal plane without friction.

As the quantum mechanics states, the wave function of an electron in atom takes all space, t.e the electron can be found out with miscellaneous probability in any point of this space. This statement gives in following inconsistencies. If the electron will appear in the area of space suitable to a high energy level, it necessarily will transfer on more low level with radiation of a photon, the energy which one has arisen from anything. As the maximums of wave functions are strongly flattened, at transitions of an electron from one level on another the photons in limits of very narrow natural breadth of spectral lines can not be radiated or to be immersed since the electron from one casual attitude transfers in another too casual.

The indeterminacy principle of the Heisenberg  $\Delta p_x \cdot \Delta x \geq \hbar$  "has legitimated" waiving a determinism in science, as a matter of fact businesses, has legitimated waiving common sense, by carving out a corollary from the reason. On this the logic it is possible at first to die, and then to catch a cold. At uniform rectilinear motion the projection of an impulse of an electron to an arbitrary axis  $x$  remains to a constant, since electronic mass and its velocity are constant. Therefore  $\Delta p_x = 0$ . Then the position of an electron along an arbitrary axis  $x$  is not determinate at all, since  $\Delta x \rightarrow \infty$ . Thus, the electron with equal probability can be found in any place along any axis, i.e. in all infinite space, that, apparently, is nonsense. It is enough to see a luminous point on the screen vested with a luminophor at hit on it of an electron or a track of an electron in an expansion chamber to be convinced of unsuitability of a quantum mechanics. On indeterminacy principle of the Heisenberg as:  $\Delta E \cdot \Delta t \geq \hbar$  at infinitesimal a time term, the energy of an electron can accept indefinitely major value. As the blanket time of a motion of an electron consists of the infinite total infinitesimal of time distances, the energy of an electron permanently should have indefinitely major value that contradicts the law of conservation of energy. The indeterminacy principle of the Heisenberg can be noted and so:  $\Delta m \cdot \Delta(Vr) \geq \hbar$ , where  $\Delta m$  - change of a particle mass moving on a circular orbit, and  $\Delta(Vr)$  - change of product of motion speed on radius of an orbit. From a reduced relation it is visible, that at an invariable particle mass its product  $Vr$  can accept any value that contradicts a law of conservation of angular momentum. From an indeterminacy principle of the Heisenberg the opportunity of existence of virtual (unobservable) particles follows. If the virtual particles yield any changes in system and these changes remain and are watched, existence of virtual particles - masked violation of law of maintenance of energy, since any changes in system in this case are bound to energy consumption received from anything.

The excessive crush for mathematical manipulations has enclosed physicists of an eyes on common sense, and they is erroneous consider, that the mathematical sense is identical to physical sense. For this reason there are new errors. For example, the electronic mass stands in a denominator for expression of radius of an orbit (or maximum of a wave function), though it contradicts physical sense and that fact, that the electron has mass, therefore, inertia. In the relevant formula of new physics the electronic mass stands in numerator according to sensible physical sense. Simultaneously formula is contained an angular momentum of an electron representing a constant value. If this moment decipher through electronic mass, its velocity and radius of gyration, the physical sense of the formula will be garbled but the electronic mass will appear in a denominator, as in a quantum mechanics. The requirements of the law of the de Broglie about identical value of moment of momentum for all particles and conservation law of this moment of momentum

preclude with increase of orbit radius particle with increase of its mass and cause opposite effect.

Thus, the quantum mechanics not only contradicts initial positions, but also fundamental laws of the nature. The modern physics is reluctant to refuse visual notions and common sense. Besides has pronounced, that in its orb of concerns the laws act invented to it. Thus, is similar to religion, the quantum mechanics has brought out itself from under a fire criticism.

Here it is necessary to remind, that on notions of official physics the electronic gas in metals is a Fermi gas, i.e. in a given energy state there can be only one electron. But each electron as a result of heat motion permanently changes the impulse over a wide range. At this change in each point of a time curve of change of an impulse for a given electron always there will be in a chunk of metal another even one electron with the same impulse. That thus to maintain a Pauli's exclusion principle it is necessary to reject heat motion of electrons (everyone lives only with a defined value of an impulse) or all electrons of a chunk of metal should change the impulses strictly concordantly. Both versions cannot physically be implemented. The thermal motion speed of electrons near to absolute zero of temperature makes, approximately, 500 kms/sec. If each electron will by any wonderful fashion inform on the state of the proximate neighbors with maximal velocity (speed of light), its "information radius" will make all about  $3 \cdot 10^{-10}$  cm, that, approximately, in 100 times there is less diameter of atom. Therefore, the adjacent electron will receive the information from object, which one for a long time already is not present in that place, the information whence has come and the parameters of the correspondent already have varied. The similar reasoning disclaims a Pauli's exclusion principle not only concerning electronic gas in metals, but also in a constitution of atoms.

**Wave-corpuscule dualism of particles.** It is easy to show, that for official physics in this problem the whole tangle of contradictions. Apparently, that a speed of wave propagation, bound with a particle:

$$w = \nu \lambda \quad (10),$$

where:  $\nu$  - frequency,  $\lambda$  - wavelength. The formula de Broglie links wave and corpuscular properties of particles:

$$\lambda = \frac{h}{mV} \quad (11),$$

where:  $V$  - speed of a particle. By substituting (11) in (10), we shall discover:

$$w = \frac{h\nu}{mV} \quad (12).$$

But the total energy of a particle (in numerator (19.12)) is determined by a ratio of the Einstein:

$$E = h\nu = mc^2 \quad (13).$$

By substituting (13) in (12) we shall receive the evidence of falsehood of notions of official physics:

$$w = \frac{c^2}{V} \quad (14).$$

The running speed of particles always is less than speed of light, then (14) demonstrates, that the speed of wave propagation, bound with a particle, always is more than speed of light, that obvious nonsense. The complex a wave-particle is instantaneously partitioned, the wave escapes, leaving a naked particle in loneliness.

New physics easily untangles this skein of inconsistencies. At first, the total energy of a particle is piled from kinetic energy tangential and translational motion on coils of a screw trajectory:

$$E = \frac{mV^2}{2} + \frac{mV^2}{2} = mV^2 \quad (15).$$

By substituting (15) in (12), we shall receive:

$$w = V \quad (16)$$

and the paradox fades.

Secondly, formula (11) de Broglie in view of angular momentum of particles  $\hbar = mVr$  more correct to copy as:

$$\lambda = 2\pi \cdot r \quad (17).$$

By substituting (17) in (10) we reach a conclusion, that tangential and forward speed of a particle on a screw trajectory are identical, for one «oscillation» the particle passes identical spacing interval in these directions.

**The theories of fields, quantum chromodynamics, supersymmetry, supergravity and other.** I here shall not criticize this continuous delirium of a modern physics. I refer the reader to the Physical encyclopedia under edition A.M. Prohorov, M., 1998. Presentation of all indicated problems in this bible of a modern physics is it mumble nonsensical mantras, alone sense which one in others mantras, too nonsensical. I proceed from the simple concept: if to demonstrate an inaccuracy of the fundamentals of a modern physics, there is no sense to waste time on the evidence of consequents. It is clear me, that the god does not exist, and resurrect whether Lazarus somebody has not any more meaning.

**Experiment, as criterion of true.** I can courageous to assert, that the experiment is not criterion of true and in this book the numerous evidences of this statement are adduced. Practically all important physical experiments have received in new physics absolutely other explanation. All depends on the point of view and programmed consciousness. The orthodox sees in experiment endorsement of orthodox notions, alternativer sees endorsement his of the notions, and minister of religion - Divine Providence. It concerns not only experiments, but any evidences. We know, that of the women burned on bonfires, having «the convincing evidences» that they are hags, and the stalin's regime conducted on fusillade «enemies of the people» too having convincing «evidences» down to own acknowledgements. It appears, it is possible «to demonstrate» everything, specially, if for it receive a wage, and others, which one are compelled to demonstrate same, breathes in a nape and come on heels. Apparently, criterion of true can be only large complex of experiments and evidences on the democratic basis, instead of on the basis monopolism on true, when one preaches and remaining agrees nod. As soon as the new ideas are formulated it is necessary systematically to subject their rigid critic so long as from them nothing remain. If something remained, it is similar true. There is no time to wait, when life will reject error ideas or their preachers will die out. The unchastity of a present condition of physics is encompass, that there is no bravery to reject initial notions, which one appear error, and the scientists indefinitely complicate these notions, by layer mass of conjectures invoked «to eliminate» of an inconsistency. With large regret it is necessary to state, that in the area of the theory of fields, fundamental particles and interplays in a microcosmos, physicists already outbided of all preachers of false views taken together: the priests, astrologists, extrasensory individuals, soothsayers, clairvoyants and many inhabitants of mental hospitals.

References:

1 <http://www.new-physics.narod.ru>