The detection and the research of the neutrinos background of Universe are the attractive problems. This problems do not seem the unpromising one in the case of the high neutrinos density that is necessary for the explanation of the nucleons-antinucleons asymmetry of Universe (the Pontekorvo’s and Smorodinsky’s hypothesis [1]).

It was offered before to use the low energy neutrinos background of Universe for the explanation of the gravitational phenomena with the quantum position attracting the Casimir’s effect for this [2]. As a result it was connected the gravitational constant $G_N$ with the parameters characterizing the electroweak interactions: $G_N = \sigma/6$, where $\sigma$ is the scattering cross-section of neutrinos upon the particle of the macroscopic body. In particular (by the employment of the neutrinos distribution with the effective temperature $T = 1.9K$) the average value $<\sigma>$ of the scattering cross-section will write down as

\[
<\sigma> \approx \frac{4}{\pi} k G_F^2 <\omega>^2 \left(\frac{1}{4} - \frac{1}{2} \xi + \xi^2\right),
\]

(0.1)

where $G_F$ is the Fermi’s constant, $\xi = \sin^2 \Theta_W$ ($\Theta_W$ is the weak angle), the average energy of neutrinos $<\omega> \approx 3.15T$. The factor $k$ connects with the collision radiation and for the electron it is directly proportional ($k \approx (2/3)\alpha$) to the fine structure constant $\alpha \approx 1/137$.

If now we shall be based on the results of the experiments fixing the equality of the gravitation mass and the inert one then it can consider that the spectrum of the particle masses is defined by their interaction with the neutrinos background of Universe. This statement is confirmed what the rest mass of the photon is equal to zero in contradistinction to the masses of the vector bosons $W^+, W^-, Z^0$ whiches interact with the neutrinos immediately [3].
1. THE SPACE OF THE WAVE–FUNCTIONS WITH THE SEMISCALAR PRODUCT

As is known the many theoretical models of the interaction particles do not without the scalar fields. At the same time the fundamental (uncompound) scalar particles are not detected by experiment and the theorists invent the different method to explain this unpleasant fact. We choose the other way, constructing the theory in which the fundamental scalar fields are absent and all problems are solved at the expense of the particles having the spin.

One of the fundamental problems of the theoretical physics is the search of the axioms, which ought to be the basis for the one–valued constraction of Lagrangians of the relativistic fields. The creation of the gauge fields theory was the great success in the solution of this problem. The gauge formalism allowed to get the total Lagrangians from the Lagrangians for the noninteracting (free) fields and in the first place by the extension of their partial derivatives. In consequence of this with all urgency the task arised to find the principles of the constraction of Lagrangians of the free fields. But it is unlikely the free fields can exist, and if even they exist, then it is unlikely we can discover them. Therefore, it is logically to get the Lagrangians of the free fields from the more general ones in the certain approximation, in consequence of this we must seek the principles of the constraction of the total Lagrangians for the interaction fields all the same.

If the spinor fields be abSENTed, one of this principles was able be the demand, that the Lagrangian is the quadratic one in the derivatives (if only in the first approximation). Note, that Skyrme considered the fermions as the convenient means of the mathematical description only. It was insisting him to conduct the search of the method of the construction of the fermion states from the boson fields allowed to turn de Broglie–Heisenberg’s scheme of the confluence (the boson from the fermions). Exactly in consequence of this, we make the attempt to get the Dirac’s equations from the quadratic Lagrangian in the derivatives of the fields.

Considering an arbitrary quantum ensemble we shall introduce the set of $N$–component “empiric” functions $\Psi(\omega)$ for its description. It is convenient to consider the functions $\Psi(\omega)$ depending on the $r$ parameters $\omega^a$, as the coordinates of the point $\omega$ belonging to the “empiric” manifold $M_r$. Also we shall introduce differentiable manifold $M_n$ (it is possible the manifold $M_n$ is connected with the macroscopic observer), which it make sence to call the “theoretical” one and it is possible which is a submanifold in the manifold $M_r$. As a result the every field $\Psi(\omega)$ induces the set of the $N$–component “theoretical” functions $\Psi(x)$ ($x \in M_n$), the equations of which are being obtained from the demand of the minimality of the generalized variance of the fields $\Psi(x)$.

So, we shall consider the quantum system for a description of which we shall use the wave–functions belonging to the vector functional space with semiscalar product. As in the general case the functions $\Phi, \Psi, \Theta, ...$ will belong to the complex vector space $L$, then the complex–valued function $\langle \Phi, \Psi \rangle$, being semiscalar product, must satisfy to the following
conditions

1°) \(<\Phi, \Psi> = <\Psi, \Phi>^*;

2°) <\lambda\Phi + \nu\Psi, \Theta> = \lambda <\Phi, \Theta> + \nu <\Psi, \Theta>;

3°) <\Psi, \Psi> \geq 0.

* is the symbol of the complex conjugation, \(\lambda\) and \(\nu\) are the complex numbers. Certainly, the Hilbertian space for the description of the quantum systems is used, but we wish to rule out the axiom in consequence of which only the nullvector satisfies to the condition

4°) <\Psi, \Psi> = 0.

Of course, not all the wave–functions can have the probability sense in this case, but we agree to this consciously so as to have the possibility to describe the generalized coherent states [5]. By this one of the main conditions of the set of the wave–functions will be absent this is the possibility of the orthogonalization of them.

We shall rely on the approach suggested by Schrödinger [6] which introduced the set of the unorthogonal to each other wave functions describing the unspreading wave packet for a quantum oscillator. Later Glauber [7] showed a scope for a description of coherent phenomena in the optics by the Schrödinger introduced states and it was he who called them as coherent. This approach received the further development in Perelomov’s work’s who proposed the definition of the generalized coherent states specifically as the states arising by the action of the representation operator of a some transformation group on any fixed vector in the space of this representation [5].

It is what allow to give the physical interpretation to the gauge transformations by our opinion as the transformations inducing the generalized coherent states, which are characterized by the continuous parameters [8]. Admittedly if the parameters space are not the compact one (we shall consider the space–time manifold always as its subspace) then by the rather large changes of parameters it is necessary take into account the speed finity of the information propagation in consequence of what the coherence of the states are able to lose (what lead to the absence of the quantum phenomena on the macroscopic level). It makes us change the Perelomov’s definition considering it taken place for the arbitrary group only in the neighbourhood of identity, what gives rise to generalize the given definition not only for the Lie local groups but and for the Lie local loops.

As known in the theory of the scattering the initial states of particles are being described by the vector \(\mid \Psi_{in} >\), relating to the infinitely distant past and the final states are being described by the vector \(\mid \Psi_{out} >\), relating to the infinitely distant future, to in both case we have the justification to ignore an interaction between particles. As a result \(S\)–matrix of the scattering is being defined by the relation \(\mid \Psi_{out} > = S \mid \Psi_{in} >\), that is to say the process of the collision is being considered as “black box”, described by \(S\)–matrix, which transform \(in\)–state to \(out\)–state of the system. As there are interesting the transitions only between the
different states then it is necessary to subtract the unit operator $I$ from $S$-matrix, thereby defining the operator of the transition as $T = S - I$ or in a different way

\[ T |\Psi_{in}> = |\Psi_{out}> - |\Psi_{in}>. \tag{1.1} \]

Naturally, by this the space and the time are being thought of as trivial objects properties of which are known. But we shall consider that the properties are being established by devices having the limited possibilities and they are being analysed by an observer possibilities of which are not unbounded ones also. Moreover we shall suppose that the considered interactions are the littles in consequence of what it can consider that operator $\{T\}$ are the infinitesimal ones.

2. THE LIE LOCAL LOOP

Let us to consider the wave packet the equivalence relation for the functions $\Psi(\omega)$ of which we shall give by the infinitesimal transformations

\[ \Psi \mapsto \Psi + \delta \Psi = \Psi + \delta T(\Psi), \tag{2.1} \]

where $\delta T$ is the particular case of the transition operator (at the beginning the symmetry type is not being specified) and $\omega$ is a set of parameters characterizing the generalized coherent state. Further we shall not separate the functions describing in–state and out–state, which are able to turn out to be the coherent ones in the cause–related region.

Let $M$ is the topological space of the parameters $\omega$, the properties of which (including the dimensionality) for the present are not being limited and let some set of the smooth curves passes over the point $\omega_o \in M$. The given set allows to produce the set of the tangent vector fields among which we shall the infinitesimal fields $\{\delta \xi(\omega)\}$, so as to define the deviations of the fields $\Psi(\omega)$ in point $\omega_o \in M$ as

\[ \delta_o \Psi = \delta X(\Psi) = \delta T(\Psi) - \delta \xi(\Psi). \tag{2.2} \]

The unspreading wave packets interest us, therefore it is desirable to demand so as the deviations were minimal ones even if “on the average” for what it is necessary to define the density $\rho = \rho(\omega)$ of the set of the fields $\{\delta X(\Psi)\}$. We shall set that the density $\rho(\omega)$ induces the dimensionality of the manifold which contains the points of the smooth curves, even if in some neighbourhood of a point $\omega_o$, and which we shall designate as $M_n$. Of course in this case the dimensionality of the linear shell, pulled on functions $\delta T(\Psi)$, can not be smaller of $n$.

As the experiments on the scattering of particles in which the laws of the conservation are being prescribed are the sole source of the information about the structure of the space–time manifold on the microscopic level taking into account the Noether’s theorem we introduce the finite–dimensional manifold $M_r$ of parameters $\omega^a \ (a, b, c, d, e = 1, 2, ..., r)$ even if as
the subspace in the considered space $M$ before connecting its dimensionality $r$ with the numbers of the conserved dynamical invariants. Further we shall consider the space $M_r$ as the manifold, the parameters $\omega^a$ as the coordinates of the point $\omega \in M_r$ and we shall give the fields $\Psi(\omega)$ in a certain domain $\Omega_r$ of the given manifold. We choose the arbitrary point $e$ in the domain $\Omega_r$ and we shall consider that this point $e$ is the centre of the coordinate system. Further we shall consider that the domain $\Omega_r$ contain the subdomain $\Omega_n$ with the point $e$ by this the domain $\Omega_n$ belong to a certain differentiable manifold $M_n$ (although it is possible in is convenient to define the manifold $M_n$ separately from the manifold $M_r$).

We shall run out the set of the smooth curves belonging to the manifold $M_n$ and having the general point $e$. Further we shall consider that the domain $\Omega_n$ is the sufficiently small neighbourhood of the point $e$, thereby and the sufficiently small neighbourhood $\delta \Omega_n$ of the point $x$ is being given ($x \equiv e \in \delta \Omega_n \subset \delta \Omega_r$). The coordinates of the point $x$ note as $x^i$ ($i, j, k, l, p, q = 1, 2, ..., n$). Further we shall consider the fields $\Psi(x)$ as the cross section of the vector fiber bundle $E_{n+N}$. Using the vector fields $\delta \xi(x)$ the coordinates of the neighbouring point $x' = x + \delta x \in \delta \Omega_n$ are being written down as

$$x'^i = x^i + \delta x^i \cong x^i + \delta \omega^a \xi^i_a(x).$$  

(2.3)

Comparing the values of the fields $\Psi'(x)$ and $\Psi(x')$, where

$$\Psi'(x) = \Psi + \delta \Psi = \Psi + \delta T(\Psi) \cong \Psi + \delta \omega^a T_a(\Psi),$$  

(2.4)

$$\Psi(x') = \Psi(x + \delta x) \cong \Psi + \delta \omega^a \xi^i_a \partial_i \Psi$$  

(2.5)

($\partial_i$ are the partial derivatives), we see that they are differing by the observables

$$\delta_o \Psi(x) \cong \delta \omega^a X_a(\Psi) = \delta \omega^a [T_a(\Psi) - \xi^i_a \partial_i \Psi],$$  

(2.6)

which can interpret as the deviations the field $\Psi(x)$, received with the help of the transformations (2.4). Further we shall consider the domain $\delta \Omega_n \subset M_n$ as the domain of the Lie local loop $G_r$ (specifically which can have and the structure of the Lie local group if we provide it with the property of the associativity) with the unit $e$ induced by the set $\{T\}$, by this we shall consider the expression of the form (2.4) as the infinitesimal law of the transformations of the Lie local loop of the fields $\Psi(x)$. Precisely the structure of the Lie local loop will characterize the degree of the coherence considered by us the quantum system. By this the maximal degree is being reached for the Lie simple group and the minimal degree is being reached for the Abelian one. In the last case we shall have the not coherent mixture of the wave–functions, it’s unlikely which can describe the unspreading wave packet that is being confirmed by the absence of the fundamental scalar particles, if hypothetical particles are
not being taken into account (in experiments only the mesons, composed from the quarks, are being observed and which are not being considered the fundamental one).

As it’s unlikely it can be to ignore an interaction between particles we must be able to select those interactions which interest us. Precisely therefore it makes sense to select the set of the operators which will play the role of the connection in further. Demand that the transformations of the Lie local loop are the covariant ones in a point it is necessary to consider the fields

\[ L_a(\Psi) = T_a(\Psi) + \xi_i^a \Gamma_i \Psi \]  

(2.7)
as the cross sections of those fiber bundle \( E_{n+N} \) that and fields \( \Psi(x) \). In consequence of this the formula (2.6) is being rewrited so

\[ \delta_o \Psi \cong \delta \omega^a X_a(\Psi) = \delta \omega^a [L_a(\Psi) - \xi_i^a \nabla_i \Psi], \]  

(2.8)

where \( \nabla_i \) are the covariant derivatives with respect the connection \( \Gamma_i(x) \). Note, if \( L_a(\Psi) = L_a \Psi \), then the following relations [10]

\[ \xi_i^a \nabla_i \xi_k^b - \xi_i^b \nabla_i \xi_k^a - 2 S^k_{ij} \xi_i^a \xi_j^b = -C^e_{ab} \xi_c^k, \]  

(2.9)

\[ L_a L_b - L_b L_a - \xi_i^a \nabla_i L_a + \xi_i^b \nabla_i L_a + R_{ij} \xi_i^a \xi_j^b = C^c_{ab} L_c \]  

(2.10)
must take place, where \( S^k_{ij}(x) \) are the components of the torsion of the space–time \( M_n \)

\[ S^k_{ij} = (\Gamma^k_{ij} - \Gamma^k_{ji})/2 \]  

(2.11)
and \( R_{ij}(x) \) are the components of the curvature of the connection \( \Gamma_i(x) \)

\[ R_{ij} = \partial_i \Gamma_j - \partial_j \Gamma_i + \Gamma_i \Gamma_j - \Gamma_j \Gamma_i. \]  

(2.12)

By this the components \( C^c_{ab}(x) \) of the structural tensor of the Lie local loop \( G_r \) must satisfy to the identities

\[ C_{ab} + C_{ba} = 0, \]  

(2.13)

\[ C_{[ab}^c C_{c]d} - \xi_i^a \nabla_{[i} C_{c]d}^e + R^{e}_{ij[a} \xi_i^j \xi_c^k = 0, \]  

(2.14)

where \( R^{e}_{ij[a}(x) \) are the components of the curvature of the connection \( \Gamma_{ia}(x) \)

\[ R^{a}_{ijb} = \partial_i \Gamma^a_{jb} - \partial_j \Gamma^a_{ib} + \Gamma^a_{ic} \Gamma^c_{jb} - \Gamma^a_{jc} \Gamma^c_{ib}. \]  

(2.15)

We construct the differentiable manifold \( M_n \), not interpreting it by physically. Of course we would like to consider the manifold \( M_n \) as the space–time \( M_4 \). At the same time it is impossible to take into account the possibility of the phase transition of a system as a result of which it can expect the appearance of the coherent states. In consequence of this it is convenient do not fix the dimensionality of the manifold \( M_n \). It can consider that the macroscopic system reach the precisely such state by the collapse. As a result we have the classical analog of the coherent state of the quantum system. Besides there is the enough developed apparatus — the dimensional regularization using the spaces with the changing dimensionality and representing if only on the microscopic level.
3. THE GAUGE FIELDS

We shall demand the minimality of the variations (2.6) (or (2.8)), if only on the “average”, in order to can be hope for the set of the fields $\Psi(x)$ is capable to describe the unspreading wave packet. Consider for this the following integral

$$\mathcal{A} = \int_{\Omega_n} \mathcal{L} d_n V = \int_{\Omega_n} \kappa \overline{X}(\Psi) \rho^a_b X^a_{\Psi} d_n V,$$

being the analogue of the fields $\Psi(x)$ variance in the domain $\Omega_n$ at issue, which we shall call the action, and $\mathcal{L}$ we shall call the Lagrangian. Here and further $\rho^b_{a}(x)$ are the components of the density matrix $\rho(x)$ (note that Latin indexis are the only (possible) visible part of the indexis of the density matrix, $\text{tr} \rho = 1, \rho^+ = \rho$, the top index + is the symbol of the Hermitian conjugation), and the bar means the Dirac conjugation which is the superposition of the Hermitian conjugation and the space inversion. Solutions $\Psi(x)$ (and even one solution) of equations, which are being produced by the requirement of the minimality of the integral (3.1) can be used for the construction of the all set of the functions $\{\Psi(x)\}$ (generated by the transition operator), describing the unspreading wave packet. It is naturally to demand the invariance of the integral (3.1) relatively the transformations (2.3) and (2.4), in consequence of what it is necessary to introduce the additional fields $B(x)$ with the transformation law in point $x \in \delta \Omega_n$ in the form

$$\delta \omega B = \delta \omega^a Y^a(B) + \nabla_i \delta \omega^a Z^i_a(B),$$

and which we shall name gauge ones. Make it in the standard manner defining them by the density matrix $\rho(x)$ as

$$B^b B^a = \rho^b_a (B^b B^a).$$

Note that the factorization of the gauge fields $B^a(x)$ on equivalence classes is allowed for the writing of their indexes. This construction method of the gauge fields theory allows to remove the homogeneous background (of particles and fields) from the consideration and allows to consider those fluctuations of which structure give them to survive a enough long time on the temporal scale of the observer.

Further we shall assume that the density matrix $\rho(x)$ defines the dimensionality of manifold $M_n$, using even if for this the corresponding generalized (singular) functions in consequence of what the rank of the density matrix $\rho(x)$ must be equal to $n$, and the formula (3.1) can be rewrited in the form

$$\mathcal{A} = \int_{\Omega_r} \mathcal{L} d_r V = \int_{\Omega_r} \kappa \overline{X}(\Psi) \rho^a_b X^a_{\Psi} d_r V,$$

We would connect the rank of the density matrix $\rho(x)$ with the nonzero vacuum average of the gauge fields.
Introduce the metric in the space $M_n$, using the reduced density matrix $\rho'(x)$, the components of which are being note as
\begin{equation}
\rho^j_i = \frac{\xi^j_i \rho^a_b \xi^a_i}{(\xi^a_i \rho^a_b \xi^b_i)}.
\end{equation}

Let the fields
\begin{equation}
g^{ij} = \eta^{ik}(\rho^j_i)(\eta_{pq}g^{pq})
\end{equation}
(where $\eta^{ij}$ are the contravariant components of the metric tensor of the tangent space to $M_n$) are the components of the inverse tensor to the fundamental one of the Weyl space $M_n$. As a result, the construction of the differentiable manifold $M_n$ can be connected with the finding of the equations solutions of the gauge fields $\Phi^i = B^a \xi^i_a$ received from the demand of the minimality of the total generalized variance
\begin{equation}
\mathcal{A}_t = \int_{\Omega_n} \mathcal{L}_t d_\omega V = \int_{\Omega_n} [\kappa X^b(\Psi) \rho^a_b X_a(\Psi) + \kappa_1 (Y^a(B) \rho_{1b}^a Y_a(B))] d_\omega V.
\end{equation}

It is naturally that the supposition about the fields filling the Universe and defining the geometrical structure of the space–time manifold, allow to introduce the connection of the fundamental tensor of this manifold with that kind of the statistical characteristic as the entropy defining it in a standard manner by the reduced density matrix $\rho'(x)$ in the form
\begin{equation}
S = - \text{tr}(\rho' \ln \rho').
\end{equation}

As a result the transition from the singular state of the Universe to the modern one can be connected with the increase of the entropy $S$ defined here.

4. THE CPT–PARITY AND THE NEUTRINOS

As is known [11], [12], [13] Lorentz-invariance of the local field theory induces also and its –invariance, in consequence of this we connect the existence of the fermions with the CPT–theorem having the place for the physical models. We assume that the spin of the particles characterizes those degree of freedom which induces the transitions between two coherent states connected by the CPT–parity operator.

Let’s assume that Universe had a stage of a development during which CPT-invariance of physical processes are absent. Such situation must arise by a break down of Lorentz invariance of the space-time $M_4$ in which only the fields with the elemental structure (scalar fields) can take place. This stage of a development of Universe, if it was taking the place of course, was completed by a degeneracy of scalar fields after all, what led to their mixing and breaking down on classes of an equivalence. It is the degeneracy of the primary scalar fields and hence their ability to interfere that allows to use the different vector fiber bundles, with the base being the space-time manifold. As a result the fundamental (uncompound) scalar
particles are absent at the modern stage of the Universe development, of course, if we shall not take into account the hypothetical particles including Higgs’ bosons.

So the rank of the density matrix $\rho(x)$ will be equal to 4 and the spinors fields are becoming fundamental ones, being differentiated by a polarization, which is connected with CPT-parity. We shall use both of these varieties of the fields $\Psi(x)$, noting them as

$$\Psi = \begin{pmatrix} \psi_L \\ \psi_R \end{pmatrix}. \tag{4.1}$$

Besides we shall double a number of components, using the operator $r$ of the CPT-parity in the form

$$\psi_L = \frac{1}{2}(I - r)\psi, \quad \psi_R = \frac{1}{2}(I + r)\psi, \quad r^+ = r, \quad rr = I \tag{4.2}$$

taking into account of course, that $r$ is equal to $\gamma_5 = -i\gamma_1\gamma_2\gamma_3\gamma_4$ ($i^2 = -1$, $I$ is the unit matrix, and $\gamma_1, \gamma_2, \gamma_3, \gamma_4$ are the Dirac’s matrices) in the standard theory of quantum electrodynamics (QED). But we want to obtain (but do not postulate) Dirac’s matrices in the framework of the gauge theory, therefore the operator $r$ will not given the concrete expression for the present. By this we shall cosider that the operator of the space inversion is acting as $P(\Psi) = K\Psi$. Specifically the $8 \times 8$-matrix $K$ may have the form

$$K = \begin{pmatrix} k & 0 \\ 0 & k \end{pmatrix}, \quad k^+ = k, \quad kk = I, \quad kr + rk = 0, \tag{4.3}$$

so that the condition $\Psi\Psi = 0$ (the unobservability condition of the noninteraction fields $\Psi(x)$) fulfilled for the noninteraction $(T_a = 0)$ fields.

Note the Lagrangian $\mathcal{L}$ in the form

$$\mathcal{L} = \overline{D\Psi}D\Psi \tag{4.4}$$

where

$$D\Psi = \Phi^i(\partial_i\Psi - T_i\Psi) \tag{4.5}$$

and spread the gauge fields $\Phi^i(x)$. Taking into account the mixing of two primary scalar fields, it can say that the Lee local loop $G_r$ contains the group $SU(2)$ as subloop, which has to be displaied by a choice of the matrices $T_i$, if only as follows

$$T_A = -T_A^+ = \frac{i}{2} \Sigma_A \otimes \begin{pmatrix} I - k & 0 \\ 0 & I + k \end{pmatrix}, \tag{4.6}$$

$$T_4 = -T_4^+ = \frac{i}{2} k \otimes \begin{pmatrix} I - 3k & 0 \\ 0 & I + 3k \end{pmatrix}. \tag{4.7}$$
Defining the Dirac’s matrices $\gamma_i$ as

\[ \gamma_4 = k, \quad \gamma_A k^r = \sum_A = \begin{pmatrix} \sigma_A & 0 \\ 0 & \sigma_A \end{pmatrix}, \]  

(4.8)

($\sigma_A$ are the Pauli’s matrices) it can obtain the Lagrangian $\mathcal{L}$ of the neutrinos fields in the standard form

\[ \mathcal{L} = -\frac{i}{2} \left[ \eta^{AB} (\partial_A \overline{\psi} \gamma_B \psi - \overline{\psi} \gamma_A \partial_B \psi) - \partial_4 \overline{\psi} \gamma_4 \psi + \overline{\psi} \gamma_4 \partial_4 \psi \right] \]  

(4.9)

So, having the neutrinos Universe and taking account of the Fermi-Dirac statistics we can recollect about the Saharov’s hypothesis using the idea of the metrical vacuum elasticity for the explanation of the gravitational interactions. But the main idea is it now for us what the normal matter (not neutrinos) acts as the Brownians by the help of which it can make the attempt to estimate the statistics characterization of the Universe neutrinos background. In the capacity of one from such indicator we offer to use the particles masses whiches connect with the scattering cross-section of the neutrinos. Note in tie with it, what we can ignore the photon collision radiation by the neutrinos scattering on the hadrons whiches are the quark resonator because of the existence of the additional degree of freedom in comparison with the electron. Exactly the resonance scattering causes to a gain in the hadrons masses by a factor of $10^3$ in comparison with the electron mass. (The great spread of the hadrons masses depend on the form of the collective quark oscillations in the hadrons resonator.)

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