ELECTRON AND ELECTRONS SYSTEM

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Abstract. This article tries to unified the four basic forces by Maxwell equations, the only experimental theory. Self-consistent Lorentz equation is proposed, and is solved to electrons and the structures of particles and atomic nucleus. The static properties and decay are reasoned, all meet experimental data. The equation of general relativity sheerly with electromagnetic field is discussed as the base of this theory. In the end the conformation elementarily between this theory and QED and weak theory is discussed.

Contents

1. Bound Dimensions

A rebuilding of units and physical dimensions is needed. Time s is fundamental. We can define:
The unit of time: s (second)
The unit of length: cs (c is the velocity of light)
The unit of energy: $\hbar/s$ (h is Plank constant)

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The unit dielectric constant ϵ is

$$[\epsilon] = \frac{[Q]^2}{[E][L]} = \frac{[Q]^2}{\hbar c}$$

The unit of magnetic permeability μ is

$$[\mu] = \frac{[E][T]^2}{[Q]^2[L]} = \frac{\hbar}{c[Q]^2}$$

The unit of Q (charge) is defined as

$$c[\epsilon] = c[\mu] = 1$$

then

$$[Q] = \sqrt{\hbar}$$
$$\sqrt{\hbar} = (1.0546 \times 10^{-34})^{1/2} C$$

C is charge's SI unit Coulomb.

For convenience, new base units by unit-free constants are defined,

$$c = 1, \hbar = 1, [Q] = \sqrt{\hbar} = 1$$

then the units are reduced.

Define

$$UnitiveElectricalCharge : \sigma = \sqrt{\hbar}$$
$$\sigma = 1.027 \times 10^{-17} C \approx 64e$$
$$e = e/\sigma = 1.5602 \times 10^{-2} \approx 1/64$$

It's defined that

$$\beta := m/e = 1, \qquad m := |k_e| \approx m_e$$

Then all units are power β^n. This unit system is called *bound dimension* or *bound unit*. We always take the definition latter in this article

$$\beta = 1$$

We always take them as a standard unit.

Define a *measure* $M := n\beta, \quad [n] = 1$:

$$1 = M \qquad M = 1$$

2. Inner Field of Electron

A-potential is itself a quantum process (i.e. wave function) of charge (or matter this case), using the explanations of the current by Maxwell equations and by the quantum dependence explained by quantum principle:

$$\partial^l \partial_l A^\nu = i A^*_\mu \partial^\nu A^\mu / 2 + cc. = \mu J^\nu \qquad m = 1 \tag{2.1}$$
$$\partial^\nu \cdot A_\nu = 0, \quad [A] = \beta$$

with definition

$$(A^i) := (U, \mathbf{A}), (A_i) := (U, -\mathbf{A})$$
$$(J^i) = (\rho, \mathbf{J}), (J_i) = (\rho, -\mathbf{J})$$
$$\partial := (\partial_i) := (\partial_t, \partial_{x_1}, \partial_{x_2}, \partial_{x_3})$$
$$\partial' := (\partial^i) := (\partial_t, -\partial_{x_1}, -\partial_{x_2}, -\partial_{x_3})$$

$$g_{ij} = \begin{bmatrix} 1 & 0 & 0 & 0 \\ 0 & -1 & 0 & 0 \\ 0 & 0 & -1 & 0 \\ 0 & 0 & 0 & -1 \end{bmatrix}$$

The mass and charge have the same movement. This equation has the symmetry CPT.

3. General Electromagnetic Field

We find

$$(x', t') := (x, t - r)$$
$$\partial_x^2 - \partial_t^2 = \partial_{x'}^2 =: \nabla'^2$$

The following is the *electromagnetic (EM) energy* of field A:

$$\varepsilon = \frac{1}{2} < A_\nu | \partial_t^2 - \nabla^2 | A^\nu > \tag{3.1}$$

under Lorentz gauge. Normally, the time-variant part gets the mean value.

4. Solution of Electron

The solution by *recursive re-substitution* (RRS) for the two sides of the equation is proposed. For the equation

$$\hat{P}' B = \hat{P} B$$

Its algorithm is that

$$\hat{P}' (\sum_{k \le n} B_k + B_{n+1}) = \hat{P} \sum_{k \le n} B_k$$

A function is initially set and is corrected by RRS of the equation 2.1. Here is the start state

$$A_i = A_r e^{-ikt}, \partial_\mu \partial^\mu A_i = 0$$

The fields' correction A_n with n degrees of A_i is called the n degrees correction.

Firstly

$$\nabla^2 \phi = -k^2 \phi$$

is solved. Exactly, it's solved in spherical coordinate

$$-k^2 = \nabla^2 = \frac{1}{r^2} \partial_r (r^2 \partial_r) + \frac{1}{r^2 \sin\theta} \partial_\theta (\sin\theta \partial_\theta) + \frac{1}{r^2 \sin^2\theta} (\partial_\varphi)^2$$

Its solution is

$$\Omega_k := \Omega_{klm} = k j_l(kr) Y_{lm}(\theta, \varphi) e^{-ikt}$$
$$\phi_k := k \phi_{klm} e^{-ikt} := k h_l(kr) Y_{lm}(\theta, \varphi) e^{-ikt}$$
$$\omega_k := k j_1(kr) Y_{11}(\theta, \varphi) e^{-ikt}$$

After normalization it's in effect

$$h = \frac{e^{\pm ir}}{r}, \quad j = \frac{\cos r, \sin r}{r}$$

We use the following calculation

$$\frac{\sin(kr)}{kr} = N \int_0^{2\pi} d\varphi \int_0^{\pi} d\theta \cdot \sin\theta \cdot e^{i\mathbf{k}\cdot\mathbf{r} = ikr\cos\theta}$$

There are calculations:

$$(\partial_t^2 - \nabla^2) u = -\nabla'^2 u = \delta(x')\delta(t') = \delta(x)\delta(t),$$

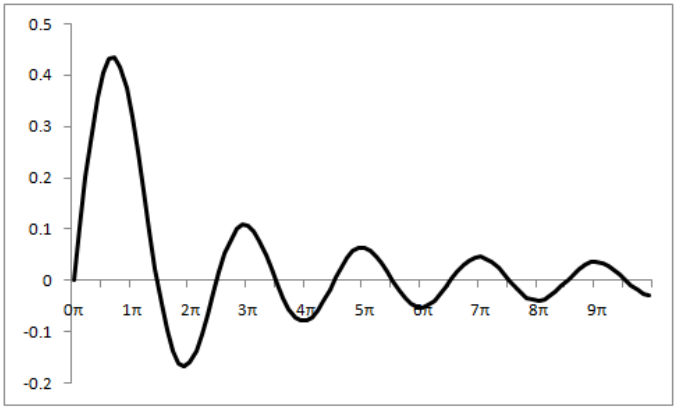

FIGURE 1. The function of j_1

$$u := \frac{\delta(t-r)}{4\pi r} = \frac{\delta(t')}{4\pi r'},$$
$$\nabla^2 = \sum_{\mathbf{k}} -\mathbf{k}^2 e^{i\mathbf{k}\cdot\mathbf{r}} *$$

Define

$$\delta(t) := \frac{1}{2\pi}\int_{-\infty}^{\infty} e^{ikt} dk$$
$$\delta(0) := \delta(\beta t)|_{t=0}$$
$$< F|F > := \overline{< F|F >} \tag{4.1}$$

The over-line means averaging on time axis.

$$f(t) * \delta(t) = f(t)$$
$$\int_{t\neq 0} \delta(t) dt = 0$$
$$(\Omega_k(x)| * |\Omega_k(x)) = \frac{\delta^3(\beta x)}{|k|/\beta \cdot \delta^3(0)}$$
$$\int_I dx(\Omega(x)^*\Omega(x))^n = (\int_I dx\Omega(x)^*\Omega(x))^n$$

In the frequencies of $\Omega(x)\cdot\Omega(x)$ the zero frequency is with the highest degrees of infinity. This principle is quite extensive in fact.

5. Electrons

It's the start electron function for the RRS of the equation 2.1:

$$A_i^\nu := i\partial^\nu \omega_k(x,t)$$

Some states are defined as the core of the electron, which's the start function $A_i(x,t)$ for the RRS of the equation 2.1 to get the whole electron function of A-potential: $A = e$

$$e_r^+ : \omega_m(\varphi, t), \quad e_l^- : \omega_m(-\varphi, -t)$$
$$e_l^+ : \omega_m(-\varphi, t), \quad e_r^- : \omega_m(\varphi, -t)$$

$$e_r^+ \to e_l^+ : (x, y, z) \to (x, -y, -z)$$

The electron function is normalized with charge as

$$e =< A_i^\mu | i\partial_t | A_{i\mu} > \tag{5.1}$$

hence

$$< \frac{A_i^\mu}{\beta} | \frac{A_{i\mu}}{\beta} > \beta^3 = 1$$

The MDM (Magnetic Dipole Moment) of electron is calculated as the second degree proximation

$$\mu_z =< A_{i\nu} | - i\partial_\varphi | A_i^\nu > \cdot \hat{z}/4 + cc.$$
$$= \frac{e}{2m}$$

The spin is

$$S_z = \mu_z k_e / e = 1/2$$

The correction in RRS of the equation 2.1 is calculated as

$$A - A_i = \frac{(A_i^* \cdot i\partial A_i/2 + cc.) *_4 u}{1 - \cdot i\partial(A_i - A_i^*)/2 *_4 u}$$

The function of e_r^+ is decoupled with e_l^+

$$< (e_l^+)^\nu | (i\partial_t)^2 | (e_r^+)_\nu > + cc. = 0$$

The following is the increment of the energy ε on the coupling of e_r^+, e_l^-, mainly between A_1 and A_3

$$\varepsilon_e =< (e_r^-)^\nu | (i\partial_t)^2 | (e_l^+)_\nu > + cc. \qquad m = 1$$
$$\approx -2e^3 m = -\frac{1}{1.66 \times 10^{-16} s}$$

Its algorithm is

$$-\frac{2}{2} \cdot \frac{2 \cdot 2^2}{2^2}$$

The following is the increment of the energy ε on the coupling of e_r^+, e_r^-, mainly between A_1 and A_7.

$$\varepsilon_x =< (e_r^-)_\nu | (i\partial_t)^2 | (e_r^+)^\nu > + cc. \qquad m = 1$$
$$\approx -\frac{1}{2} e^7 m = -\frac{1}{1.145 \times 10^{-8} s}$$

Its algorithm is

$$-\frac{2 \cdot 2}{4 \cdot 4} \cdot \frac{2 \cdot 2^6}{2^6}$$

and

$$< \cos^5(t - \varphi) | \cos(t + \varphi) >$$
$$=< \cos(2t) \cos^2 \varphi (\cos^4 t \cos^4 \varphi - \sin^4 t \sin^4 \varphi) >$$
$$= -2 \cdot \frac{1}{4} \cdot \frac{1}{4} \cdot N$$

6. System and TSS of Electrons

Wave functions are the scalar representation of the group of parallel motions.

$$A := f(x,t) *_4 \sum_i e_i$$

f is probability of matter (point) and is normalized by dependency

$$< f|f >= 1$$

Dimension is included. This A-potential is also a representation of the united motions, not normalized.

The following are stable naked particles:

particle	*electron*	*photon*	*neutino*
notation	e_r^+	γ_r	ν_r
structure	e_r^+	$(e_r^+ + e_l^-)$	$(e_r^+ + e_r^-)$

The following is the system of particle x with the initial state

$$A_0 := e_x * \sum_c e_c,$$

$$e_c := *e, \pm e, \quad d := (r,l)$$

There are transforms, the first of which transfers an incoming wave to an outgoing wave in its decay

$$\Phi * -(e_{xc} * e_c) := \Phi(-x,-t) * (e_{xc} * e_c), \quad \Phi = \Phi(t) \cdot h(-t)$$

$$\Phi * *(e_{xc} * e_c) := \Phi^* * (e_{xc} * e_c)$$

Its partial or whole mechanical wave are transferred like

$$\Phi * e_x * \sum_c e_c \to \sum_c \Phi(x_c,t) * e_x(x_c,t) * e_c(x_c,t) \tag{6.1}$$

$$\to \sum_c \Phi(x_c'',t) *_t e_x(x_c',t) *_t e_c(x_c,t)$$

Their original probability is

$$F(\Phi)(\lambda_x'',\lambda_t) \cdot F(e_x)(\lambda_x',\lambda_t) \cdot F(e_c)(\lambda_x,\lambda_t)$$

Point in frequency space is also independent and analytic. Two events independent in phase space are just irrelative, or visa versa. The multiplication means linked by logic 'and', the addition, 'or'. The number of electrons is checked.

Its mass-current is

$$p = i\partial|\Phi * e_{xc} * i\partial_t e_c > /m \tag{6.2}$$

Its e-current is

$$J = i\partial|\Phi * e_{xc} * e_c > \tag{6.3}$$

They all describe the movement of electrons. Static A-potential multiplying static charge is EM energy. Static mechanical energy adding EM energy is zero.

Its most outside wave is described (not always precise) by

$$\frac{\cos(kr \pm kt)}{r} * e^{-ik_e t} \cdot \delta(x))$$

$$\frac{\sin(kr \pm kt)}{r} * e^{-ik_e t} \cdot \delta(x))$$

which is the wave of the kernel that is invariant taken by the track. The track's wave-vector is the e-current hence. This implies Einstein's theory of momentum. Charge is described by its motion of the chosen field. The angular-momentum and MDM uncouple between the electrons (6.1).

As a construction is considered integrated and invariant, its action is explained like

$$\delta < e_x|\partial_t^2 - \nabla^2|e_x >_4 = 0$$

So that

$$(\partial_t^2 - \nabla^2)e_x = 0$$

$$e_x := k_x \Omega_{k_x}(x)$$

Hence this state A_0 is considered as a (Transient) Steady State (TSS). e_x here is a Light State (LS).

It's found that

$$J_x = < e_{xc} * e_c|i\partial|e_{xc} * e_c >$$

With the previous discussion of field's momentum, its static charge is conformal to the mechanical explanation

$$|Q_x| = < e_{xc} * e_c|e_{xc} * e_c >$$

According to all the track's monochromatic waves, Lorentz transformation effects on the different parts.

$$|k_x| = \frac{n_x}{|Q_x|}$$

$$n_x := < \sum_c e_{xc}|\sum_c e_{xc} >$$

7. Muon

$$\mu^- : e_{\mu l} * (e_r^- - *e_l^- + *e_l^+), \quad e_\mu = e_x(k_x = -3\beta)$$

μ is approximately with mass $3m/e = 3 \times 64m$ [3.2][1] (The data in bracket is experimental by the referenced lab), spin S_e (electron spin), MDM $\mu_B m/k_\mu$.

The main channel of decay is

$$\mu^- \to e_r^- + \nu_l, \quad e_r^- \to -e_r^+ + \nu_r$$

$$e_\mu * e_r^- + e_\mu * (- * e_l^- + *e_l^+) \to e_\mu * e_r^- + \phi_k * \nu_l$$

Its main life is

$$\varepsilon_\mu := < \phi_k * (e_l^+)_\nu)|\phi_k * (i\partial_t)^2(e_l^-)^\nu) > +cc. \qquad m = 1$$

$$= \frac{m\varepsilon_x}{k_\mu} = -\frac{1}{2.2015 \times 10^{-6}s} \quad [2.1970 \times 10^{-6}s]$$

It's applied that the conservations of momentum and charge and angular-momentum in mass-center frame.

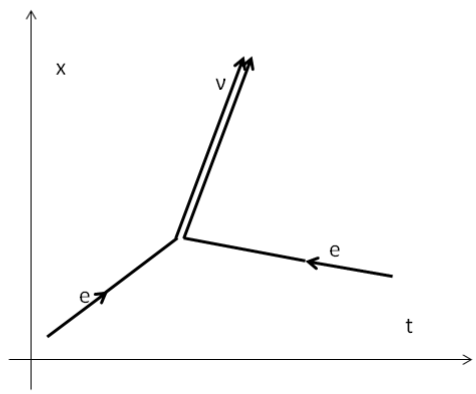

FIGURE 2. neutrino radiation

8. Pion

The initial of pion is perhaps like an atom

$$\pi^- : (e_l^+, e_l^- + e_r^-)$$

Decay Channels:

$$\pi^- \to e_r^- + \nu_l, \quad e_r^- \to -e_r^+ + \nu_r$$

The mean life approximately is

$$-\varepsilon_x/2 = \frac{1}{2.3 \times 10^{-8} s} \quad [(2.603 \times 10^{-8} s][1]$$

The precise result is calculated with successive decays.

9. Pion Neutral

The initial of pion neutral is perhaps like an atom

$$\pi^0 : (e_r^+ + e_l^+, e_r^- + e_l^-)$$

It's the main decay mode as

$$\pi^0 \to \gamma_r + \gamma_l$$

The mean life is

$$2\varepsilon_e = \frac{1}{8.3 \times 10^{-17} s} \quad [8.4 \times 10^{-17} s][1]$$

10. Proton

The initial of proton may be like

$$p^+ : e_{pl} * (4e_r^- - *3e_l^+ + 2e_l^+), \quad e_p = e_x(k_x = 29\beta)$$

The mass is $29 \times 64m$ [29][1] that's very close to the real mass. The MDM is calculated as $3\mu_N$ (mainly by track), spin is S_e. The proton thus designed is eternal.

11. Neutron

Neutron is the atom of a proton and a muon

$$n = (p^+, \mu^-)$$

The muon take the first track, with the decay process

$$\Phi * \mu^- = \Phi * e_\mu * (e_r^- - *e_l^- + *e_l^+) \to \Phi * e_\mu * (e_r^-) + \nu_l$$

Calculate the variation of the action of the open system, the EM energy of its field subtracting the external interaction,

$$i\partial_t \Phi + \frac{1}{2m_\mu}\nabla^2\Phi = -\frac{\beta\alpha}{em_\mu r}\Phi \tag{11.1}$$

$$\alpha = \frac{e^2}{4\pi\epsilon\hbar c} \approx 1/137$$

Two of the terms of EM energy are neglected.

$$\Phi = Ne^{-r/r_0}e^{-iE_1 t}$$

$$E_1 = E_B \cdot \frac{\beta^2}{e^2 m_\mu^2} \cdot \frac{m_\mu}{m}$$

$$E_B = -\frac{\alpha^2 m}{2} = -13.6eV$$

It's approximately the decay life of muon in the track that

$$\varepsilon_n = -\frac{\beta^2}{m_\mu^2} \cdot \frac{E_B}{m} e^3 \varepsilon_x = -\frac{1}{1019s}$$

12. Atomic Nucleus

We can find the equation for the fields of Z' ones of proton: Φ_i, and the fields of n ones of muon: $\Phi_{j:j>Z'} = \phi_i$:

$$\Phi = \sum_i \Phi_i, \quad \phi = \sum_i \phi_i$$

$$\varphi_\nu := \Phi_\nu * (p/\mu)_l, \quad \varphi^\nu := \Phi_\nu * (p/\mu)^l$$

We have the interaction between self-fields and charge (or mass)

$$I =< \sum_\mu \varphi^\mu | \frac{1}{2}\partial^\nu\partial_\nu | \sum_\mu \varphi_\mu >_4 /2 - \sum_\nu < \Phi^\nu \widehat{Q_\nu} | \frac{\alpha}{r} * | \sum_{i\neq\nu} \Phi_i \widehat{Q_i} >_4 /2 + cc.$$

The mechanical interaction is explained mechanically. Make the variation of this action on Φ_i, ϕ_i

$$\delta I = 0$$

to find

$$\frac{1}{2}\partial_t^2\Phi - ik_p\partial_t\Phi + \frac{1}{2}\nabla^2\Phi = (Z'+2)\frac{\alpha\beta^4}{r} * \Phi - n\frac{\alpha\beta^4}{r} * \phi$$

$$\frac{1}{2}\partial_t^2\phi - ik_\mu\partial_t\phi + \frac{1}{2}\nabla^2\phi = -Z'\frac{\alpha\beta^4}{r} * \Phi + (n-2)\frac{\alpha\beta^4}{r} * \phi$$

If E is known (which does exist undoubtedly and invariantly) the second equation is rendered to

$$\frac{1}{2}\partial_t^2\phi - ik_p\partial_t\phi + \frac{1}{2}\nabla^2\phi = -Z'\frac{\alpha\beta^4}{r} * \Phi + (n-2)\frac{\alpha\beta^4}{r} * \phi$$

Make

$$\zeta = \Phi + \phi\eta$$

$$(Z'+2) - \eta Z' = -n/\eta + (n-2) =: N$$

$$\eta = \frac{(Z'-n+4) \pm \sqrt{(Z'-n+4)^2 + 4Z'n}}{2Z'}$$

then

$$-(E^2/2 + Ek_p)\nabla^2\zeta + \frac{1}{2}\nabla^4\zeta + 4\pi\alpha\beta^4 N\zeta = 0$$

$$\zeta e^{-ikt} = \sum C_{lm}\Omega_{klm}$$

So that the first approximation from $\nabla^2(=-k^2) = -k_p^2$:

$$E = -k_p - \sqrt{-8\pi\alpha\beta^2 N}$$

It's gross mechanical energy.

$$N(Z', n) = \frac{1}{2}(Z' + n - \sqrt{(Z'+n)^2 + 8(Z'-n) + 16}) \tag{12.1}$$

$$\approx -2\chi \qquad \chi := \frac{Z'-n}{Z'+n}$$

$$E \approx -k_p - E_g, \quad E_g := 10MeV, \quad \chi = 1/3$$

Use another combination of nucleus to find $|k| = |E|$, LS, hence

$$E^4 + E^3 + 8\pi\alpha\beta^4 N = 0 \qquad k_p = 1$$

Every single muon or proton has third-level wave

$$\Phi_i = \sum C'_{lm}\Omega_{Elm}, \qquad \phi_i = \sum C''_{lm}\Omega_{Elm}$$

12.1. **Decay Energy.** The life-involved energy of proton or muon under the solved wave Φ_i is

$$\varepsilon = < \Phi_i * (p,\mu)^l |\hat{p_0}| \Phi_i * (p,\mu)_l > /2 + cc. \qquad m = 1$$

$$= (3/29 - \frac{2}{|E|}, \quad -1/3 + \frac{4}{|E|})e^{11}, \quad \beta = 1$$

$$E_\Delta \approx -\frac{1}{4s}, \qquad \Delta E = E_g$$

The decay

$$_{14}C \to {}_{14}N + \mu_C$$

is with zero energy decrease unless the neglected weak crossing is considered.

12.2. **β-stable and Neutron Hide.** In the solutions when a proton combine with a muon the both have the same wave function:

$$\Phi_\mu = \phi_\mu$$

then this terms will quit from the interactional terms of the previous equations, which change to

$$(Z'_x, n_x) \to (Z'_x - 1, n_x - 1)$$

This will change the *flag energy* E. If a β-decay can't happen then a dismiss of this *neutron hide* will help. Out of the hidden nucleons ($\geq 2z$), the ratio $2:1 = Z' : n$ between protons and muons causes the most stable state. So that if

$$-N(Z' + \max(z) + z, n + \max(z) + z) \leq -N(Z' - z, n)$$

$$\frac{Z + \kappa - h}{3(Z+\kappa) + 2\max(z) + 2z} \leq \frac{Z + \kappa - h - z}{3(Z+\kappa) - z}, \qquad 8h := 3\kappa^2 + 8\kappa - 16 \tag{12.2}$$

then β-decay wouldn't happen for the reversed process can happen. The sign of the coefficient (minus here) of the gross decay energy is also noticed.

It's found a critic point

$$\kappa \approx -8 : \quad h \approx 14$$

and

$$Z \approx 29$$

By the following result 12.3, conditions $\chi = 1/3$ and $\max(z) = 0$ are specific for this critical point, for the other Z or κ, the both of which are incompatible.

The condition 12.2 is solved to

$$2(z + \max(z))z < 2\max(z)(Z+\kappa) - (2\max(z) + z)h$$

hence as

$$\frac{1}{4} < \chi \leq \frac{1}{3}, \quad z \leq \max(z) = ((Z+\kappa) - 1.5h)/2 \tag{12.3}$$

the reaction is very weak.

Near the stable χ, it's the *Average Binding Mass Per Nucleon* according to charge number that

$$\varepsilon_M(Z) = X \cdot \beta\Delta_0^Z\sqrt{-8\pi\alpha N}$$

$$X = (Z \leq 29) + (Z > 29)\frac{2.0}{2.5 - 10.5/(Z-8)}$$

The EM energy is gravitational mass by the discussions in the section 14, for proton

$$m_p = < \varphi_\nu | \frac{1}{2}\partial_\mu\partial^\mu | \varphi_\nu > \approx k_p$$

By the motion Φ_ν to find

$$M_p = E/(-m_p) = \gamma \qquad m_p = 1$$

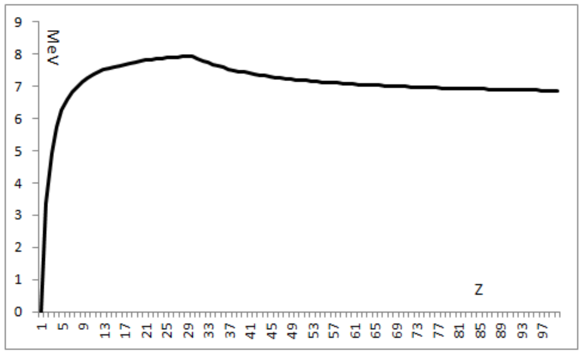

FIGURE 3. Average Binding Mass: $\varepsilon_M(0) - \varepsilon_M(Z)$

13. Basic Results for Interaction

For decay

$$W(t) = \Gamma e^{-\Gamma t} \tag{13.1}$$

$$\Gamma =< A_\nu|\hat{p_0}|A^\nu > |_{\infty}^{t=0}/2 + cc. \qquad m = 1$$

$$\int_0^\infty W(t)dt = 1 \qquad m = 1$$

p_0 is referenced to 6.2. There are two unit variations, the physical including its proper unit or the number of the physical out of unit keep invariant either.

The distribution shape of decay can be explain as

$$A_0 e^{-\Gamma t/2 - ik_x t}, 0 < t < \Delta$$

It's the real wave of the particle x near the initial time and expanded in that time span

$$\approx \sum_k \frac{Ce^{-ikt}}{k - k_x - i\Gamma/2}$$

14. Grand Unification

The General Theory of Relativity is

$$R_{ij} - \frac{1}{2} R g_{ij} = -8\pi G T_{ij}/c^4 \tag{14.1}$$

Firstly the unit second is redefined as S to simplify the equation 14.1

$$R_{ij} - \frac{1}{2} R g_{ij} = -T_{ij}$$

Then

$$R_{ij} - \frac{1}{2} R g_{ij} = \frac{1}{\mu}(F^*_{i\mu} F_j{}^\mu - g_{ij} F^*_{\mu\nu} F^{\mu\nu}/4)$$

F is conjugate and antisymmetric. We observe that the co-variant curvature is

$$R_{ij} = \frac{1}{\mu}(F^*_{i\mu} F_j{}^\mu + g_{ij} F^*_{\mu\nu} F^{\mu\nu}/8)$$

15. Conclusion

Fortunately, this model explained all the effects in the known world: strong, weak and electromagnetic effects, and even subclassify them further if not being to add new ones. In this model the only field is electromagnetic field, and this stands for the philosophical that the unified world is from an unique source, all that depend on the hypothesis: A-potential is itself a quantum process of charge.

My description of particles is compatible with QED elementarily and depends on momentum quantification formula, and only contributes to it with theory of consonance state in fact. In some way, the electron function is a good promotion for the experimental models of proton and electron that went up very early.

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