

ELECTRON AND ELECTRONS SYSTEM

WU SHENG-PING

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.

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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

$$\text{UnitiveElectricalCharge} : \sigma = \sqrt{\hbar}$$

$$\sigma = 1.027 \times 10^{-17} C \approx 64e$$

$$e = e/\sigma = 1.5602 \times 10^{-2} \approx 1/64$$

It's defined that

$$\beta := m/e = 1, \quad m := |k_e|$$

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* $M := n\beta$, $[n] = 1$:

$$1 = M \quad M = 1$$

2. INNER FIELD OF ELECTRON

A-potential of electron is itself wave function of matter, and of course the wave function of A-potential

$$(2.1) \quad \partial^l \partial_l A^\nu = i A_\mu^* \partial^\nu A^\mu / 2 + cc. = \mu J^\nu \quad m = 1$$

$$\partial^\nu \cdot A_\nu = 0, \quad [A] = \beta$$

It's with definition

$$(A^i) := (V, \mathbf{A}), (A_i) := (V, -\mathbf{A})$$

$$(J^i) = (\rho, \mathbf{J}), (J_i) = (\rho, -\mathbf{J})$$

$$\partial := (\partial_i) := (\partial_t, \partial_{x_1}, \partial_{x_2}, \partial_{x_3})$$

$$\partial' := (\partial^i) := (\partial_t, -\partial_{x_1}, -\partial_{x_2}, -\partial_{x_3})$$

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

The mass and charge have the same movement.

$$\mu = \frac{4\pi\alpha}{e^2}$$

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 energy* of field A :

$$(3.1) \quad \varepsilon = \frac{1}{2} \langle A_\nu | \partial_t^2 - \nabla^2 | A^\nu \rangle$$

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

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

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

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

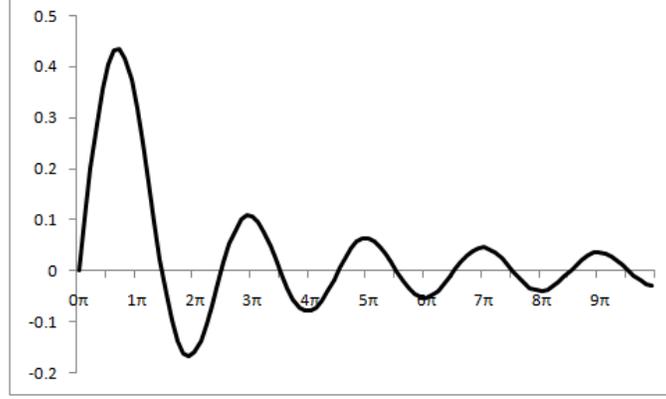
We use the following calculation

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

There are calculations:

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

$$u := \frac{\delta(t-r)}{4\pi r} = \frac{\delta(t')}{4\pi r'}$$

FIGURE 1. The function of j_1

$$\nabla^2 = \sum_{\mathbf{k}} -\mathbf{k}^2 e^{i\mathbf{k}\cdot\mathbf{r}_*}$$

Define

$$\delta(t) := \frac{1}{2\pi} \int_{-\infty}^{\infty} e^{ikt} dk$$

$$\delta(0) := \delta(\beta t)|_{t=0}$$

$\delta(0)$ isn't a number, which's expressed by a sequence of number, but many numbers depend on it.

$$(4.1) \quad \langle F|F \rangle := \overline{\langle F|F \rangle}$$

The over-line means averaging on time axis.

$$f(t) = \lim_{\beta \rightarrow 0^+} e^{-\beta|t|} f(t)$$

To mention that it's incorrect sometimes to commute between the limity or the truncation and integral or derivative.

$$f(t) * \delta(t) = f(t)$$

$$\delta(t)|_{t \neq 0} = C\beta^2$$

$$(\Omega_k(x)| * |\Omega_k(x)|) = \frac{I(\beta x)}{|k|/\beta}$$

$$I(t) := \frac{\delta(t)}{\delta(0)}$$

$$\int_I \frac{\delta^2(t)}{\delta(0)} dt^2 = \int_I \delta(t) dt^2 = \int_I dt = \delta(0)$$

$$e^{ikt} * e^{ikt}|_0 = \int_I dt \cdot e^{ikt} e^{-ikt} = \delta(0)$$

$$\hat{a} := a/|a|$$

5. ELECTRONS

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

$$A_i^\nu := il\partial^\nu\omega_k(x, t), \quad l \approx 1$$

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: $A = e$

$$\begin{aligned} e_r^+ &: \omega_m(\varphi, t), & e_l^- &: \omega_m(-\varphi, -t) \\ e_l^+ &: \omega_m(-\varphi, t), & e_r^- &: \omega_m(\varphi, -t) \\ e_r^+ &\rightarrow e_l^+ : (x, y, z) \rightarrow (x, -y, -z) \end{aligned}$$

The electron function is normalized with charge as

$$(5.1) \quad e = \langle A^\mu | i\partial_t | A_\mu \rangle / 2 + cc.$$

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

$$\begin{aligned} \mu_z &= \langle A_\nu | \partial_\varphi \partial_t | A^\nu \rangle \cdot \hat{z} / 2 + cc. \\ &= \frac{e}{2m} \end{aligned}$$

The spin is

$$S_z = 1/2$$

The correction in RRS of the equation 2.1 is calculated as

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

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

$$\langle (e_l^+)^{\nu} | i\partial_t | (e_r^+)^{\nu} \rangle / 2 + cc. = 0$$

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

$$\begin{aligned} \varepsilon_e &= \langle (e_r^-)^{\nu} | i\partial_t | (e_l^+)^{\nu} \rangle / 2 + cc. \quad m = 1 \\ &\approx -2e^3\beta = -\frac{1}{2.64589 \times 10^{-18}s} \end{aligned}$$

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 .

$$\begin{aligned} \varepsilon_x &= \langle (e_r^-)^{\nu} | i\partial_t | (e_r^+)^{\nu} \rangle / 2 + cc. \quad m = 1 \\ &\approx -\frac{1}{2}e^7\beta = -\frac{1}{1.78625 \times 10^{-10}s} \end{aligned}$$

Its algorithm is

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

and

$$\begin{aligned} &\langle \cos^5(t - \varphi) | \cos(t + \varphi) \rangle \\ &= \langle \cos(2t) \cos^2 \varphi (\cos^4 t \cos^4 \varphi - \sin^4 t \sin^4 \varphi) \rangle \end{aligned}$$

$$= -2 \cdot \frac{1}{4} \cdot \frac{1}{4} \cdot N$$

The following are stable naked particles:

<i>particle</i>	<i>electron</i>	<i>photon</i>	<i>neutino</i>
<i>notation</i>	e_r^+	γ_r	ν_r
<i>structure</i>	e_r^+	$(e_r^+ + e_l^-)$	$(e_r^+ + e_r^-)$

6. SYSTEM AND TSS OF ELECTRONS

The following is the isolated system of particle x

$$A := e_x * \sum_c e_c$$

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

There are transforms for the initial wave

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

$$\Phi * e_{xc} * *e := (\Phi * e_{xc})^* h(-t) * e_c$$

Wave functions are the scalar representation of the group of parallel motions. Φ, e_x is probability of matter (point). They are normalized with dependency

$$\langle e_x | e_x \rangle = 1, \quad \langle \Phi | \Phi \rangle = 1$$

Dimension is included. This A-potential is called *EM field*.

For the isolated particle x ,

$$A := e_{xc} * e_c = x$$

make its action of *EM energy*

$$\delta \langle A^\nu | \partial^\mu \partial_\mu | A_\nu \rangle_4 = 0$$

The normalization of A is applied. So that

$$\partial^\mu \partial_\mu e_x = 0$$

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

This state A is considered as a (Transient) Steady State (TSS). e_x here is a Light State (LS). By calculating in probability normalization of the number of particle x ,

$$(6.1) \quad 1 = \langle e_{xc} * e_c^\nu | e_{xc} * e_{c\nu} \rangle$$

$$|k_x| = n_x, \quad n_x := \langle \sum_c e_{xc} | \sum_c e_{xc} \rangle$$

The number of electrons (i.e. branches)

$$n = \langle \sqrt{N} e_{xl} * e_l^\nu | \sqrt{N} e_{xc} * e_{c\nu} \rangle$$

$$\langle \sqrt{N} e_{xl} * e_l^\nu | \sqrt{N} e_{xk} * e_{k\nu} \rangle = \delta_{lk}$$

Its mechanical or probabilistic physical is calculated so, such as static charge and momentum, angular momentum

$$p_{\nu c} = -\frac{1}{m} i \partial \cdot \Phi_\nu * e_x * i \partial_t e_c$$

the part of which, on the most outside layer

$$\langle \Phi_\nu | i \partial | \Phi_\nu \rangle$$

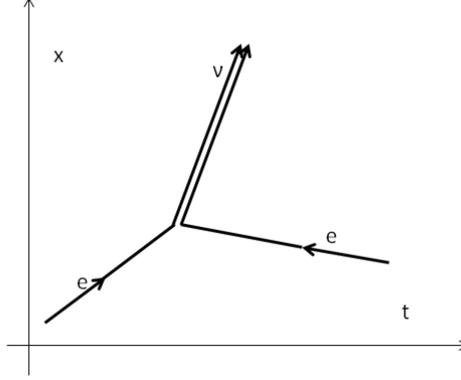


FIGURE 2. neutrino radiation

is called *flag momentum*, which expresses the mechanical movement of the particle. Its wave-function of e-current is explained probabilistically:

$$(6.2) \quad \mu J = i\partial \cdot \Phi * e_x * i\partial_t e_c$$

The *interactive potential* and the *mechanical energy* are added to zero, which're two sides of a coin. The electromagnetic physical such as MDM, (EM) interactive potential, etc. is calculated as of the e-current

$$J' = (\Phi * x^\nu | \hat{J}_l | \Phi * x_\nu) / 2 + cc.$$

7. MUON

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

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

$$\mu^- \rightarrow e_l^- + \nu_l, \quad e_l^- \rightarrow -e_r^+ + \nu_r$$

$$e_\mu * e_l^- + e_\mu * (- *e_l^- + *e_l^+) \rightarrow \phi' * e_l^- + \phi * \nu_l$$

Its main life is

$$\varepsilon_\mu := \langle e_\mu * (e_l^+)_\nu | e_\mu * (i\partial_t)^2 (e_l^-)^\nu \rangle / 2 + cc. \quad m = 1$$

$$= \frac{e^2 \varepsilon_x}{k_\mu} = -\frac{1}{2.2015 \times 10^{-6} s} \quad [2.1970 \times 10^{-6} s]$$

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

8. PION

The initial of pion perhaps an atom

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

Decay Channels:

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

The mean life approximately is

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

The precise result is calculated with successive decays.

9. PION NEUTRAL

The initial of pion neutral is perhaps

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

It's the main decay mode as

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

The loss of interaction is

$$-2e\varepsilon_e = \frac{1}{8.48 \times 10^{-17}s} \quad [8.4 \times 10^{-17}s][1]$$

10. PROTON

The initial of proton may be like

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

The mass is $29 \times 64m$ [29][1] that's very close to the real mass. The MDM is calculated as $3\mu_N$, 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

$$\Phi * e_\mu * (e_l^- - *e_l^- + *e_l^+) \rightarrow \phi' * e_\mu * e_l^- + \phi * e_\mu * \nu_l$$

Calculate the variation of the action of the open system, the EM energy of its field subtracting the external interaction (in fact, the EM energy invariance),

$$(11.1) \quad i\partial_t\Phi + \frac{1}{2m_\mu}\nabla^2\Phi = -\frac{\beta\alpha e}{m_\mu r}\Phi$$

Two of the terms of EM energy are neglected.

$$\Phi = Ne^{-r/r_0}e^{-iE_1t}$$

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

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

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

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

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: ϕ_i ,

$$\begin{aligned} \Phi &= \sum_i \Phi_i, & \phi &= \sum_i \phi_i \\ \varphi_\nu &:= \Phi_\nu * (p/\mu) \end{aligned}$$

By the invariance of EM energy

$$I = \sum_\mu \langle \varphi^\mu | \frac{1}{2} \partial^\nu \partial_\nu | \varphi_\mu \rangle_4 / 2 + \sum_\mu \langle \varphi^\mu | \frac{1}{2} \partial^\nu \partial_\nu | \sum_{i \neq \mu} \varphi_i \rangle_4 / 2 + cc.$$

Make this action to

$$\begin{aligned} \frac{1}{2} \partial_t^2 \Phi - ik_p \partial_t \Phi + \frac{1}{2} \nabla^2 \Phi &= -(10(Z' + 1)\Phi - 10n\phi) \\ \frac{1}{2} \partial_t^2 \phi - ik_\mu \partial_t \phi + \frac{1}{2} \nabla^2 \phi &= -(-10Z'\Phi + 10(n-1)\phi) \end{aligned}$$

With a rotation of Lorentz norm in the action on muon to set

$$\frac{1}{2} \partial_t^2 \phi - ik_p \partial_t \phi + \frac{1}{2} \nabla^2 \phi = -(10Z'\Phi - 10(n-1)\phi)$$

Then, make combination of the both functions

$$\begin{aligned} \zeta &= \Phi + \phi\eta \\ (Z' + 1) - \eta Z' &= -n/\eta + (n-1) =: N \\ \eta &= \frac{(Z' - n + 2) \pm \sqrt{(Z' - n + 2)^2 + 4Z'n}}{2Z'} \end{aligned}$$

$$(12.1) \quad N(Z', n) = \frac{1}{2} (Z' + n - \sqrt{(Z' + n)^2 + 4(Z' - n) + 4})$$

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

then

$$-(E^2/2 + Ek_p)\nabla^2 \zeta + \frac{1}{2} \nabla^4 \zeta + 10N\nabla^2 \zeta = 0$$

By action of EM energy invariance in another form, the branches' flag momentum (E, \mathbf{k}) meet

$$|\mathbf{k}| = |E|$$

hence

$$\begin{aligned} E^2 + Ek_p - 10N &= 0 \\ E &= -\frac{1}{2} (k_p + \sqrt{k_p^2 + 40N}) \\ &\approx -(k_p + \frac{10N}{k_p}) \end{aligned}$$

For $N = -\chi = -1/3$

$$E \approx -k_p + \Delta, \quad \Delta = 3.76MeV$$

The groups of muon or proton are with waves of the third layer

$$\Phi = e^{-iEt} \sum C'_{lm} \Omega_{Elm}, \quad \phi = e^{-iEt} \sum C''_{lm} \Omega_{Elm}$$

12.1. Decay Energy. The life-involved energy of proton or muon under the solved wave Φ is averaged as

$$\begin{aligned} \varepsilon &= \langle \Phi_i * (p, \mu)^l | \hat{J}_0 / 2 | \Phi_i * (p, \mu)_l \rangle / 2 + cc. \quad m = 1 \\ &= (11/29 - \frac{2}{|E|}, \quad 1/3 + \frac{4}{|E|}) e^9 / 2 \quad \beta = 1 \end{aligned}$$

The differential of $1/(2|E|)$ is

$$E_{\Delta} \approx \frac{1}{0.54s}, \quad \Delta E = \Delta$$

The decay



is with zero energy decrease unless the neglected weak crossing are 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

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

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

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

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

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

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

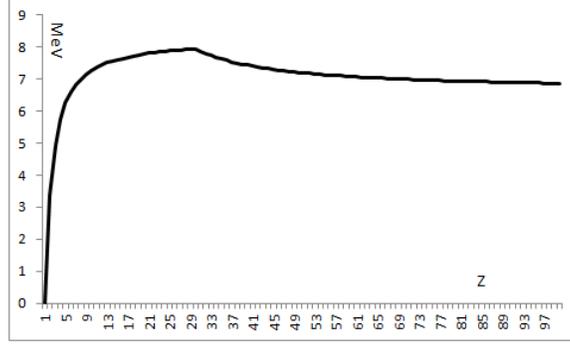
hence as

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

the reaction is very weak.

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

$$\overline{M}(Z) = X \cdot -E$$

FIGURE 3. Average Binding Mass: $\bar{M}(0) - \bar{M}(Z)$

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

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

$$m_p = \langle \Phi_\nu * p | \frac{1}{2} \partial_\mu \partial^\mu | \Phi_\nu * p \rangle \approx k_p$$

By the motion Φ_ν to find the *flag mass*

$$M_\nu = -E$$

13. BASIC RESULTS FOR INTERACTION

For decay

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

$$\Gamma = \langle A_\nu | \mu \hat{J}_0 / 2 | A^\nu \rangle \Big|_{\infty}^{t=0} / 2 + cc. \quad m = 1$$

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

J_0 is referenced to 6.2. Γ is interactive potential. At the beginning of the variation, the (micro) space variables get unit β^{-1} , then the value is balanced by measure $m = 1$. As a result, the EM field drives the mechanical movement, the little one drives the great one.

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

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

14. GRAND UNIFICATION

The General Theory of Relativity is

$$(14.1) \quad R_{ij} - \frac{1}{2}Rg_{ij} = -8\pi GT_{ij}/c^4$$

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

$$R_{ij} - \frac{1}{2}Rg_{ij} = -4\pi T_{ij}$$

Then

$$R_{ij} - \frac{1}{2}Rg_{ij} = \frac{e^2}{\alpha}(F_{i\mu}^*F_j^\mu - g_{ij}F_{\mu\nu}^*F^{\mu\nu}/4)$$

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

$$R_{ij} = \frac{e^2}{\alpha}(F_{i\mu}^*F_j^\mu + g_{ij}F_{\mu\nu}^*F^{\mu\nu}/8)$$

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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E-mail address: hiyaho@126.com

TIANMEN, HUBEI PROVINCE, THE PEOPLE'S REPUBLIC OF CHINA. POSTCODE: 431700