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Formation and Stability of Various Type of Central Systems in Universe

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***Abstract*: In this particular article I will prove some former terminologies which were established in my two former papers about the Bodies and the Broken Parts and how these are basic components of several type of central systems on different geometrical scales in Universe. I will also prove that how these types of processes are required in the stability of these central systems. In this particular article I will prove n-type of central systems exists in universe in my formerly described N-time inflationary model of Universe.**

***Keywords*: Minor Singularities, N-Central Systems, Universal Frame of Reference, Universal Time.**

1. Introduction

At first in this particular article I will give some geometrical representation of different types of central systems and then prove how these central systems evolve and give a physical significance to inflations of Universe or in other words how these central systems affect the dynamics of Universe. Now, in order of typical proving I tend to figure out the stability equations of these central systems. In this particular article I also intend to obtain the stability conditions of various central systems and how these central systems come into existence and which type of bodies are the components of these central systems. As from my previous two articles "On the Configuration of EM Waves and Bosons" and "Generalization of Different Type of Bodies Exist in Universe" in this article I also give some explanations about the connection of inflations and various kinds of bodies exists in Universe.

2. Geometrical Representations of Some Central Systems

In trend of proving things geometrically, I here starting with the atomic central system-

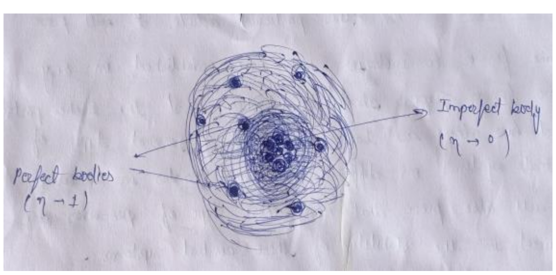

Fig. 1. Geometrical Representation of Atomic Central System

Actually the body in the center of this type of central system is tending to perfection by releasing some broken parts. Here when we look at the process of formation of this central system, then-

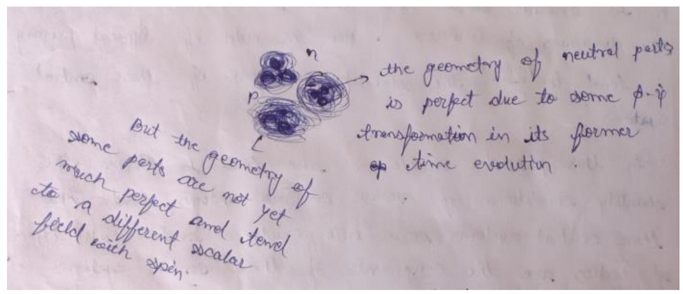

Fig. 2. Formation process of atomic central system

This type of bodies also formed from some basic central systems or in another sense the Proton and Neutrons also formed from some basic central systems on a lower geometrical scale and by the mixing of scalar field these bodies formed out. There are perfect bodies which are moving around the atomic central system in former epoch of Universe. So, each and every perfect body the nucleus is different in geometrical perspectives as planets in solar central systems. This effect is measurable when we see the electrons in reference of atomic central systems from the bigger geometrical central systems (solar systems). So, electrons are also not same in Geometry as planets but they move around an imperfect body which is under formation and having some variation in the density of scalar field but their components of formation are of same type as the components of planets same type of atomic central systems. We can conclude the fact that "Each and every component of same geometrical scale forms bigger central systems with stable central systems in perfect bodies and bodies in imperfect center". Now as we come to the evolution of a central system, then-

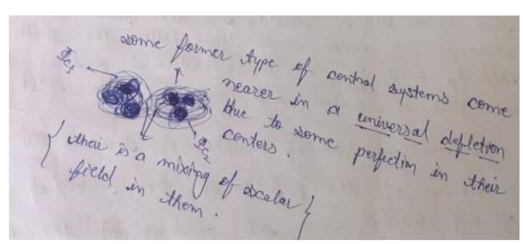

Fig. 3. Evolution of atomic central systems in universal deflations

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So, as these bodies comes closure and after that some mixing of scalar fields come into order and form a bigger central system or that causes a Universal Inflation. Now by transformation of spin in these central systems and there forms a unique body which is imperfect in sense or have a mixed part of scalar field around themselves and formerly formed such bodies move around these new forming bodies.

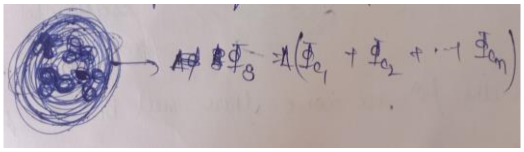

Fig. 4. Transformation of Spin between Central Systems

These central systems are stable due to moving some formerly formed bodies or perfect bodies. Now the geometrical representation to describe about a particular central system-

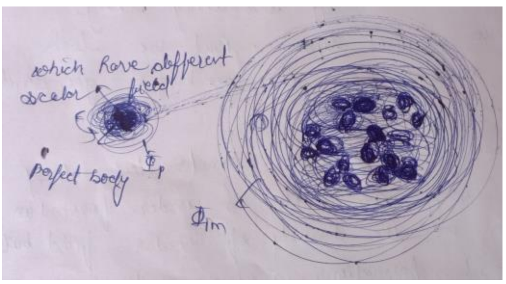

Fig. 5. A Perfect Body Entering in Scalar Field of Imperfect Body

When the perfect body comes into the density variation of the imperfect body, then it typically interact with the scalar field around the imperfect body (under formation) live in stable condition by density variation with motion. These bodies live in stability when the scalar field's order is same or in other words these follow the path in which $\Phi_p \cong (\Phi_{im})_{path}$ or the densities of scalar fields of perfect and imperfect body must match at that path.

So, evolution of these bodies can be justified in terms of the perfection of the center of the body. If any distortion comes into existence of the central system that will be an incident in which the information about some universal happening things are hidden typically.

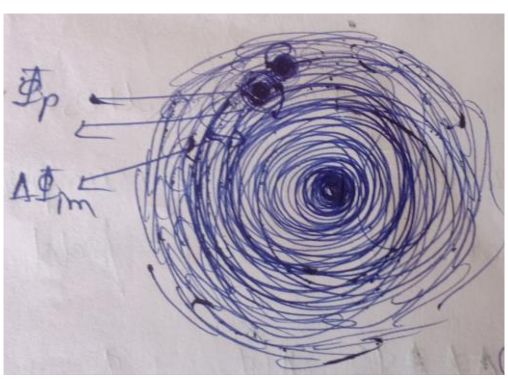

Fig. 6. Choosing the path of motion by perfect body around imperfect center

So, if we measure it in another way then the scalar field around a central system coinciding with the scalar field of a perfect body which is moving around it.

When a perfect body enters into a central system then it goes to more perfection by releasing some broken parts but after the scalar fields are coinciding then the body will not lose quantity by friction in form of broken parts.

Now as we look at the central systems and their evolution from the universal point of view or in universal frame of reference then we get some extraordinary things like how time evolve in these central systems and what is time exactly from the point of view of evolution of these particular central systems?

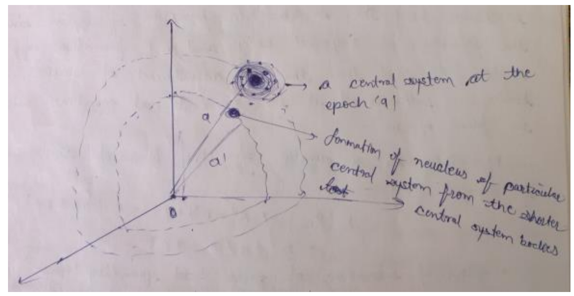

Fig. 7. Evolution of Central Systems in Universal Frame of Reference

Here between the epochs a and a' the evolution of a particular central system came into existence. So, the process of thinking at an imperfect body which is stable by some formerly formed perfect bodies moving around it and these bodies having a mess of scalar field around themselves in some former universal epoch give us the equation of stability of the central system.

If an imperfect body had some quantity at universal epoch $(a')\ \Psi(a')$ and scalar field density $\Phi_{a'}$ and the universal scalar field have the function Φ_u at that particular epoch then the body will be stable as a central system-

$$\frac{\partial\Psi(a')}{\partial\Phi_u(a')} + \alpha\frac{\partial\Phi_{a'}}{\partial\Phi_u(a')} + \Phi_{a'}\frac{\partial\alpha}{\partial\Phi_u(a')} = \frac{\partial\Psi(a)}{\partial\Phi_u(a)} + \alpha\frac{\partial\Phi_a}{\partial\Phi_u(a)} + \Phi_a\frac{\partial\alpha}{\partial\Phi_u(a)} = 0 \qquad (1)$$

{ $\frac{\partial\alpha}{\partial\Phi_u(a)}$ is the friction part of body}

Here in other words the whole quantity of a body is conserved in universal sense. There is some ϕ-ψ transformation as broken parts and some distortions into the evolutionary body. But if we look at some other parameters of the particular body like transformation of spin during the formation of imperfect body and formation of common scalar field and then the adjustment of various perfect bodies in paths around it (orbits), then some typical equations will be in front of us.

If there is a function of the flow of scalar field of imperfect body-

$$\digamma(\Phi_{im}) = R + A\phi + B(\phi*\phi) + C(\phi*\phi*\phi) + D(\phi*\phi*\phi*\phi) + \cdots \qquad (2)$$

N-type of interactions of scalar field quantity (basic) or in the case of an orbit, perfect bodies with their scalar field flows-

$$\text{F}(\Phi_{p_1}) = R_1' + \alpha_1\phi + \beta_1(\phi * \phi) + \gamma_1(\phi * \phi * \phi) + \dots \quad (3)$$

$$\text{F}(\Phi_{p_2}) = R_2' + \alpha_2\phi + \beta_2(\phi * \phi) + \gamma_2(\phi * \phi * \phi) + \dots$$

The n paths of finding to these bodies can be obtained by comparing equation (2) and (3) or will be at-

For perfect body 1 at path: - $R = R_1'$,B $= \alpha_1$, $C = \gamma_1$

For perfect body 2 at path: - $R = R_2'$,B $= \alpha_2$, $C = \gamma_2$

So we can find the path of n bodies in similar way.

Now there is a change in spin will be included here when the body enters in scalar field of imperfect center.

From the above discussion one question must be hitting your mental lexicon like can we determine how many universal inflations occurred in past by the biggest central systems exist at the particular epoch because the biggest central system includes n central systems formed in past n-inflations of Universe.

Here we were on the path of perfect bodies which generally move around an imperfect body. Now by looking at the entrance of the perfect body with certain properties like $\eta \to 1$ as-

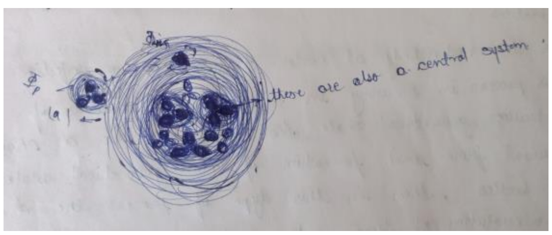

Fig. 8. Closure Look at Entrance of Perfect Body in Imperfect Scalar Field

So, protons, neutrons and electrons like bodies are also have shorter central systems. As the body ‘a’ enters into the imperfect scalar field the perfect body’s scalar field start rotating due to change in density at different parts of the body and as from my former paper the perfect body start spinning on its axis due to transformation of spin from its component central system’s bodies. This spin helps a perfect body to move in path around a imperfect body (which is the center of a central system).

Each and every body moving around a central system has a different geometrical parameter which generally depends upon the coupling, spin, and interaction of scalar fields of the body. If we change a central system then the time evolution seems different because our definition about time is from a particular type of central system. So, if we look at the evolution of time as an observer from the origin of universal frame of reference then only we can define time exactly.

But for a particular central system its evolution of time starts from $\eta \to 0$ to $\eta \to 1$ of its center or particularly around it by conversion in broken parts. Universal time depends upon the formation of quantities and geometries by universal scalar field or similarly depend upon the universal functions Ψ_M°,Ψ_V°, $\Psi_B^\circ$and Φ_M°, Φ_L°, Φ_S° or Ψ_u° and Φ_u° (which are combinations of three functions).

As the body at center goes to perfection and this process is occurring in various central systems on a particular geometrical scale, then that will cause a change in universal flow and formation of new geometrical scale by these bodies, and then in this type of process the definition of evolution of time into particular central systems is changed according to the change in universal flow of scalar field.

So, time is governed by the quantity which is responsible for the flow of scalar field or time is closely related to the relation between the quantity and its surrounding scalar field. Time starts from a body come in existence and evolve as it goes to perfection or reduce in scalar field around it, then the body is a part of bigger central system and then the time includes the evolution of the component body.

By, not going into definitions I here intend to explain the terminology of n-central systems. I had partially indicated about it like there must exist some central systems also in atomic bodies (like in electron, proton and neutron or in other bodies). So, here should be some queries like how an electron also formed from some shorter central systems and what should be the stability criteria of the electron like body.

As I described before that each and every central system contains an imperfect center and perfect bodies which are moving around that imperfect central body but by some ϕ-ψ transformation these bodies are partially imperfect (which are moving around a body under formation). Electron also contains some shorter central systems on lower geometrical scale. So, geometrical representation of electron like body should be-

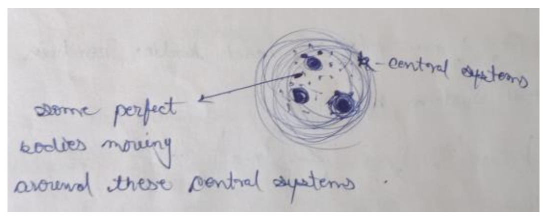

Fig. 9. Existence of k-shorter Central Systems in Electron

Based on the nature of these central systems the geometry of each and every electron is different but these exist on a very much lower geometrical scale due to formation in a particular universal inflation like the scale difference between the scalar and atomic central systems or galactic and solar central systems. When we change a central system the laws of physics seems different due to change into basic constants and basic constants are different due to different bodies have different types of scalar field densities and nature of scalar fields are different around these bodies. Now I tend to obtain the former tendency which I had described as each and every body contains several shorter (shorter than the particular body which we are considering) central system bodies and these central systems also behave as generally central systems behave. Suppose a body created in n^{th} inflation of universe have $i \in \mathbb{R}$ shorter type of central systems (if it is perfect) and each shorter bodies which created in $(n-1)^{th}$ inflation also contain $k_1, k_2, \dots\dots, k_n \in \mathbb{R}$ bodies created in $(n-2)^{th}$ inflation and vice versa, then we get the quantity of n^{th} bodies as-

$$\Psi_n + \alpha\Phi_n = \sum_{i\in\mathbb{R}} (\Psi_{n-1}^{c})_i + \sum_{i\in\mathbb{R}} \alpha_i (\Phi_{n-1}^{c})_i + \text{combined terms} \quad (4)$$

{Ψ_{n-1}^{c}= quantity of a central system in prospect of n^{th} body}

$$\sum_{i\in\mathbb{R}}(\Psi^{c}_{n-1})_{i} = \sum_{\substack{k_1,k_2,\ldots\ldots,k_i\in\mathbb{R}\\ 1\le p\le i}}(\Psi^{c}_{n-2})_{k_p}$$

Here $(\Psi_{n-1})_1$, $(\Psi_{n-1})_2$,………, $(\Psi_{n-1})_i$ each bodies contain $k_1, k_2, \ldots\ldots, k_i$ (n-2)th central system bodies like-

$$(\Psi_{n-1})_1 = \sum_{k_1\in\mathbb{R}}(\Psi_{n-2}), (\Psi_{n-1})_2 = \sum_{k_2\in\mathbb{R}}(\Psi_{n-2}), \ldots\ldots$$

Now the above method of defining quantities can be solved and we can find the quantity of a particular body as a combination of these quantities which involved in a particular nth body. Now I tend to obtain a tremendous geometrical representation of solar system on the behalf of the above hypothesis-

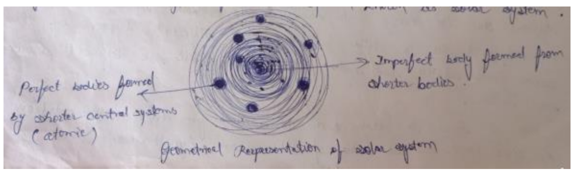

Fig. 10. Geometrical Representation of a Central System

So, here in this particular geometrical representation you can analyze that the shorter central systems (atomic) come into existence in bodies which are perfect because here the change in scalar field is less but in body at the center of a central system there is more ϕ-ψ transformation and mixing of scalar fields, so the stability of shorter central systems are less. So, stability of shorter central systems in a body depends upon the scalar field density variation in that body.

"If there exist shorter central systems then these should be measurable in the broken parts also" because if a nth body (created in the nth inflation of universe) is breaking some of its parts by some distortion (as discussed in my first paper), then in broken parts there should exist the lower central systems. So, photons also contain the shorter central systems-

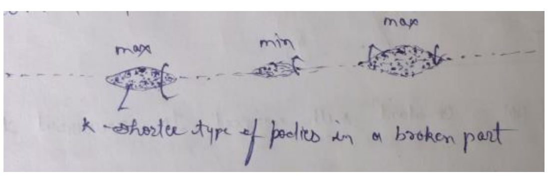

Fig. 11. Existence of k-shorter Central System Bodies in a Broken Part

The minimum of the broken part is at the maximum pressure on these shorter central system's bodies or in another words the scalar field around these bodies start repelling and the broken parts change their direction of rotation and vice versa. So, the length λ between the minimum to minimum is or in other words-

λ =Scalar field around the shorter central bodies is at minimum pressure between two nearest points in universal scalar field.

$(\phi_d)_a - (\phi_d)_b = 0$ Between these two nearest points in universal scalar field and ϕ_d is density of scalar field. If there is a wave formed by some change in scalar field then the effect of that wave will be on the scalar field contained by the body or the central systems are same. Like in a supernovae explosion the wave formed will effect on that deep of another body at which the wave was formed.

A solar system is stable if the scalar fields (Φ_{im} & Φ_p) are in proper order or in other words there is a proper combination of broken parts and mixing of scalar fields.

$$\Phi_{im} - \sum_{n}\Phi_p + broken\ parts\ released\ by\ imperfect\ body - broken\ parts\ observed\ by\ perfect\ bodies = f(\phi) = \Phi_{im} - \sum_{n}\Phi_p + \beta - \gamma$$

{Here γ is the number of observed broken parts by same central bodies}

So, the evolution equation of the central system is-

$$f'(\phi) = 0$$

Here $f(\phi)$ is differentiated with respect to universal time-

$$\frac{\partial f(\phi)}{\partial\tau} = 0 \tag{5}$$

{Here τ is Universal Time}

Or $f(\phi)$ is constant with respect to universal time for central systems or if $\frac{\partial f(\phi)}{\partial\tau} = g(\phi)$ or it is not constant then there should be singularity (minor) in sense of Universe (like black hole). So, black hole is not starting of time, it seems due to capturing of broken parts.

Minor singularities are often observed when a universal deflation starts and converts into a new inflation. So, minor singularities are giving information about the (n+1)th inflation if the universe crossed nth inflation(or the minor singularity is nth body). Let's see in Universal Diagram-

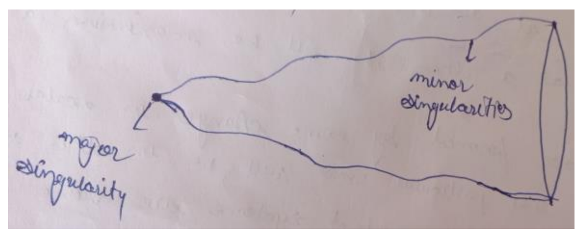

Fig. 12. Difference between Major Singularity and Minor Singularities

By many minor singularities there is a change into the flow of universal scalar field and gradually universe tend to deflation then by creation of new bodies from these minor singularities a new universal inflation starts.

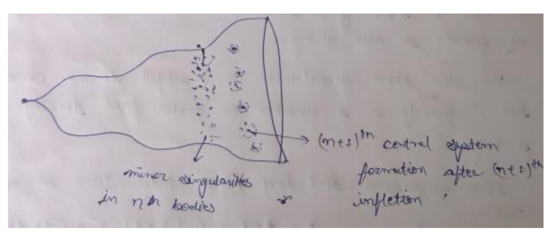

Fig. 13. Minor Singularities Causing Next Universal Inflation

$$Existance\ of\ minor\ singularities \propto Change\ in\ flow\ of\ universal\ scalar\ field \propto change\ in\ universal\ time$$

So, universal time is not absolute in another sense. Now we have some queries like if universal time is not absolute then how it behaves and how all type of physical interaction are related to that universal time. So, minor singularities (like black holes) have a high scalar field density variation around themselves. Geometrically this type of bodies evaporates by more mixing of shorter-bigger central scalar fields. So, broken parts can't leave this type of bodies due to more difference in scalar field density in few scales.

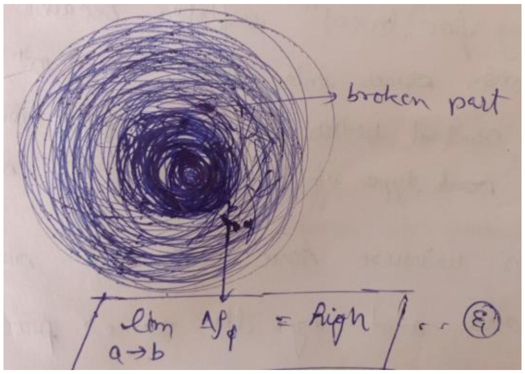

Fig. 14. Situation of a Broken Part in Minor Singularity's Scalar Field

$$\boxed{\lim_{a\to b}\Delta\rho_{\phi} = high} \qquad (6)$$

So, here the path of broken part will elliptic or circular around this type of bodies (minor singularities). High spin would also a property of former type of minor singularities by the theorem on transformation of spin in bigger bodies from shorter bodies. Here is more density variation around this type of bodies so, gravity is also strong. From the above treatise a beautiful lemma comes out that "Gravity is variation in scalar field density around a body".

Minor singularities don't have higher order terms in scalar field zero. So, we can represent scalar field of a minor singularity (Φ_{minor}) as-

$$\Phi_{im} = A + B\phi + C(\phi * \phi) + D(\phi * \phi * \phi) + \dots\dots\dots + N(\phi * \phi * \phi * \dots\dots\dots . n - times)$$

The function with constant N is not zero for minor singularities and n depend upon the quantity and spin of the body.

Now I tend to explain about existence of shorter central bodies in minor singularities. Here also exist shorter central systems but they have less scalar field and more quantity or in another sense their central bodies also affected by the whole body. So, here in minor singularities shorter bodies behave slight differently than in other normal bodies. These minor singularities can also exist on different geometrical scales or these can exist in nth , (n-1)th , …………, 1st bodies. If there exist several nth minor singularities in universe then universe is going for (n+1)th inflation because minor singularities exist after perfection comes into order in nth central bodies and when several nth central bodies tend to perfection then these are going to form (n+1)th type of central system on bigger geometrical scale.

1st bodies in universe have information about formation of geometries in universe and by the same process of tendency to perfection of various bodies they evolve in universe and forms central systems in universe and the process of perfection goes forward after each inflation. We can easily understand it in universal diagram-

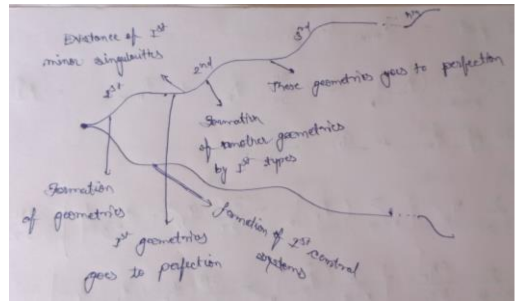

Fig. 15. Formation of Geometries in N-Time Inflationary Model of Universe

From the above generalization there exist n-type of central systems after n-inflations of universe. These central systems are more stable in perfect bodies either than imperfect bodies.

3. Some Mathematical Generalization of the above Representations

If n-central systems goes to perfection then-

$$\frac{\partial \Phi_u}{\partial \tau} = \frac{\partial\left(N\sum_{n\in\mathbb{R}}\eta\Phi_n^c\right)}{\partial \tau}$$

By solving the derivative we get-

$$\frac{\partial \Phi_u}{\partial \tau} = \sum_{n\in\mathbb{R}}\eta\Phi_n^c.\frac{\partial N}{\partial \tau} + N.\sum_{n\in\mathbb{R}}\frac{\partial \eta}{\partial \tau}\Phi_n^c + N.\sum_{n\in\mathbb{R}}\eta\frac{\partial \Phi_n^c}{\partial \tau} \qquad (7)$$

$$\{\because \Phi_n^c = \sum_{k\in\mathbb{R}}(\Phi_{n-1}^{c})_k - \text{broken parts released} + \text{mixed part}\}$$

If θ is the number of broken parts releasing rate per unit universal time, then-

$$\Phi_n^c = \sum_{k\in\mathbb{R}}(\Phi_{n-1}^{c})_k - \theta.\phi_b + \text{mixed part}$$

$$\left\{\theta = \frac{\partial\beta}{\partial\tau}\right\}, \quad \beta = \text{number of broken parts released}$$

$$\boxed{\Phi_n^c = \sum_{k\in\mathbb{R}}(\Phi_{n-1}^{c})_k - \frac{\partial\beta}{\partial\tau}\phi_b + \text{mixed part}}$$

$$\{\text{ mixed part} = \Phi_{mix}\ \}$$

Now we get-

$$\Phi_n^c = \sum_{k\in\mathbb{R}}(\Phi_{n-1}^{c})_k - \frac{\partial\beta}{\partial\tau}\phi_b + \Phi_{mix}$$

By putting value of Φ_n^c in equation (7)-

$$\begin{aligned}\frac{\partial \Phi_u}{\partial \tau} = &\left(\sum_{n\in\mathbb{R}}\eta\left\{\sum_{k\in\mathbb{R}}(\Phi_{n-1}^{c})_k - \frac{\partial\beta}{\partial\tau}\phi_b + \Phi_{mix}\right\}\right).\frac{\partial N}{\partial \tau} \\ &+ N.\left(\sum_{n\in\mathbb{R}}\frac{\partial \eta}{\partial \tau}\left\{\sum_{k\in\mathbb{R}}(\Phi_{n-1}^{c})_k - \frac{\partial\beta}{\partial\tau}\phi_b + \Phi_{mix}\right\}\right) \\ &+ N.\sum_{n\in\mathbb{R}}\eta\left\{\sum_{k\in\mathbb{R}}\frac{\partial(\Phi_{n-1}^{c})_k}{\partial\tau} - \frac{\partial^2\beta}{\partial\tau^2}\phi_b + \frac{\partial\beta}{\partial\tau}\frac{\partial\phi_b}{\partial\tau} + \Phi_{mix}\right\}\end{aligned} \qquad (8)$$

Now as from my former paper τ (universal time) also a function of universal scalar field. So, as we have a look on equation (8) in universal frame of reference and being at the origin of it, then-

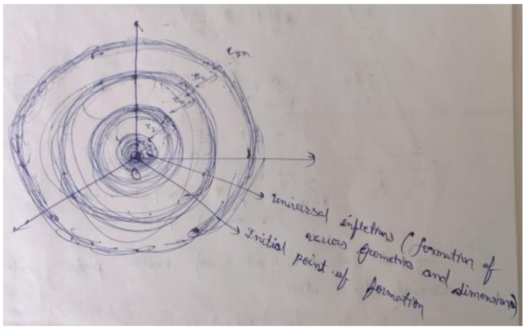

Fig. 16. Representation of various universal ages in universal frame of ref.

So, exact time of universe can be different in terms of the calculations of evolution of scalar field (Φ_u) or by calculating formation and perfection of various bodies and then by adding it to all times.

$$\tau_u = \tau_1 + \tau_2 + \ldots\ldots\ldots\ldots\ldots + \tau_{2n}$$

$$\boxed{\tau_u = \sum_{\substack{k_1\, is\ odd \\ k_1 \le 2n}} \tau_{k_1} + \sum_{\substack{k_2\, is\ odd \\ k_2 \le 2n}} \tau_{k_2}} \tag{9}$$

Here in (9) the first term is times of inflations and the second term is times of formation of central systems. And $\tau_u = total\ age\ of\ universe$.

So, we can calculate the age of universe by calculating the evolution and perfection age of various central systems.

Now by some manipulation from equation (1) and (7)-

$$\frac{\partial \Phi_u(a)}{\partial \tau} \times \frac{\partial \psi(a)}{\partial \psi(a)} = \frac{\partial \Phi_u(a)}{\partial \psi(a)} . \frac{\partial \psi(a)}{\partial \tau}$$
$$= \frac{1}{\partial \psi(a) \Big/ \partial \Phi_u(a)} . \frac{\partial \psi(a)}{\partial \tau}$$

$$\{\because \frac{\partial \psi(a)}{\partial \Phi_u(a)} = -\alpha \frac{\partial \Phi_a}{\partial \Phi_u(a)} - \Phi_a \frac{\partial \alpha}{\partial \Phi_u(a)}\}$$

So, we can also calculate change in quantity according to universal time, as-

$$\frac{\partial \psi(a)}{\partial \tau} = -\left(\alpha \frac{\partial \Phi_a}{\partial \Phi_u(a)} + \Phi_a \frac{\partial \alpha}{\partial \Phi_u(a)}\right)\{\sum_{n \in \mathbb{R}} \eta \Phi_n^c . \frac{\partial N}{\partial \tau} + N . \sum_{n \in \mathbb{R}} \frac{\partial \eta}{\partial \tau} \Phi_n^c + N . \sum_{n \in \mathbb{R}} \eta \frac{\partial \Phi_n^c}{\partial \tau}\} \tag{10}$$

Now from (5) if a p-type minor singularity exist then the function $f(\phi)$ will behave like its p-time derivative will be equal to zero-

$$f^p(\phi) = 0$$

Or $\frac{\partial f(\phi)}{\partial \tau} = g(\phi)$, $\frac{\partial g(\phi)}{\partial \tau} = h(\phi)$ or up to some similar functions-

$$f^{'}(\phi) = g(\phi)$$
$$f^{''}(\phi) = g^{'}(\phi) = h(\phi)$$
$$.$$
$$.$$
$$f^p(\phi) = g^{p-1}(\phi) = h^{p-2}(\phi) = \cdots = z(\phi) = 0$$

Here $p < n$ for minor singularities. So, here exist (p-1) functions in terms of universal time derivative.

$$f(\phi) = \Phi_{im} - \sum_n \Phi_p + (\beta - \gamma)\phi_b$$

By taking p[th] derivative of the function there will be some different terms in the last function $(\beta - \gamma)\phi_b$ –

$$f^p(\phi) = \frac{\partial^p \Phi_{im}}{\partial \tau^p} - \frac{\partial^p \sum_n \Phi_p}{\partial \tau^p} + \left(\frac{\partial^p \beta}{\partial \tau^p} - \frac{\partial^p \gamma}{\partial \tau^p}\right)\phi_b + (\beta - \gamma)\frac{\partial^p \phi_b}{\partial \tau^p} + other\ terms = 0 \tag{11}$$

Here other terms in equation are binomial terms because of p[th] derivative of multiplication of two functions $(\beta - \gamma)$ & ϕ_b . I only here represented p[th] derivative terms only in equation (11). Now by the Leibnitz's Theorem in (11) we get-

$$\boxed{\frac{\partial^p \Phi_{im}}{\partial \tau^p} - \frac{\partial^p \sum_n \Phi_p}{\partial \tau^p} + \sum_{k=0}^{p} \binom{p}{k} \left(\frac{\partial^{p-k} \beta}{\partial \tau^{p-k}} - \frac{\partial^{p-k} \gamma}{\partial \tau^{p-k}}\right) . \frac{\partial^k \phi_b}{\partial \tau^k} = 0} \tag{11'}$$

Here $\binom{p}{k} = \frac{p!}{k!(p-k)!}$ is binomial coefficient. So, the missing terms are also included into this equation.

Equation (11)' is describing normal bodies (p=1) and minor singularities both depending upon the values of p.

$\because \{\alpha' \psi_b = \phi_b\}$ And $\{\psi_b = \alpha \phi_b\}$ here α=conversion constant and $\alpha^{'} = \alpha^{-1}$=inverse of conversion constant.

Now by putting value of ϕ_b in equation (5) , we get-

$$f(\phi) = \Phi_{im} - \sum_n \Phi_p + (\beta - \gamma)\, \alpha' \psi_b$$

{ ψ_b= Average quantity of broken parts }

Now by putting in equation (11) we get-

$$\frac{\partial^p \Phi_{im}}{\partial \tau^p} - \frac{\partial^p \sum_n \Phi_p}{\partial \tau^p} + \left(\frac{\partial^p \beta}{\partial \tau^p} - \frac{\partial^p \gamma}{\partial \tau^p}\right)\alpha' \psi_b + (\beta - \gamma)\psi_b \frac{\partial^p \alpha'}{\partial \tau^p} + (\beta - \gamma)\alpha' \frac{\partial^p \psi_b}{\partial \tau^p} + other\ terms = 0 \tag{12}$$

Here in equation (12) this is not easy to calculate other terms because here three functions are multiplied and the p[th] derivative of these are complex. Now by comparing equation (11)' and (12)-

$$\sum_{k=0}^{p} \binom{p}{k} \left(\frac{\partial^{p-k} \beta}{\partial \tau^{p-k}} - \frac{\partial^{p-k} \gamma}{\partial \tau^{p-k}}\right) . \frac{\partial^k \phi_b}{\partial \tau^k} = \left(\frac{\partial^p \beta}{\partial \tau^p} - \frac{\partial^p \gamma}{\partial \tau^p}\right)\alpha' \psi_b + (\beta - \gamma)\psi_b \frac{\partial^p \alpha'}{\partial \tau^p} + (\beta - \gamma)\alpha' \frac{\partial^p \psi_b}{\partial \tau^p} + other\ terms$$

(10)

$$\tag{13}$$

$d\tau = k d\Phi_{u_f}$ From my second paper and in similar way by multiplying power p both sides $d\tau^p = k^p d\Phi_{u_f}^p$

By putting value of $d\tau^p$ in equation (13) , we get-

$$\sum_{k=0}^{p} \binom{p}{k} \left(\frac{\partial^{p-k} \beta}{\partial \Phi_{u_f}^{p-k}} - \frac{\partial^{p-k} \gamma}{\partial \Phi_{u_f}^{p-k}}\right) . \frac{\partial^k \phi_b}{\partial \Phi_{u_f}^k} = \left(\frac{\partial^p \beta}{\partial \Phi_{u_f}^p} - \frac{\partial^p \gamma}{\partial \Phi_{u_f}^p}\right)\alpha' \psi_b + (\beta - \gamma)\psi_b \frac{\partial^p \alpha'}{\partial \Phi_{u_f}^p} + (\beta - \gamma)\alpha' \frac{\partial^p \psi_b}{\partial \Phi_{u_f}^p} + other\ terms \tag{14}$$

Now from equation (4)-

$$\Psi_n + \alpha\Phi_n = \sum_{i\in\mathbb{R}} (\Psi_{n-1}^c)_i + \sum_{i\in\mathbb{R}} \alpha_i(\Phi_{n-1}^c)_i + f(\phi,\psi) - \alpha\phi_b$$

Here $f(\phi,\psi)$ is combined terms function.

Now differentiating this equation with respect to universal time-

$$\frac{\partial\Psi_n}{\partial\tau} + \alpha\frac{\partial\Phi_n}{\partial\tau} + \Phi_n\frac{\partial\alpha}{\partial\tau} = \sum_{i\in\mathbb{R}} (\frac{\partial}{\partial\tau}\Psi_{n-1}^c)_i + \sum_{i\in\mathbb{R}} \alpha_i(\frac{\partial}{\partial\tau}\Phi_{n-1}^c)_i + \sum_{i\in\mathbb{R}} \frac{\partial\alpha_i}{\partial\tau}(\Phi_{n-1}^c)_\mathrm{i} + \frac{\partial f(\phi,\psi)}{\partial\tau} - \frac{\partial\alpha}{\partial\tau}\phi_b - \frac{\partial\phi_b}{\partial\tau}\alpha$$

$$\{\because \frac{\partial\Psi_n}{\partial\tau} + \alpha\frac{\partial\Phi_n}{\partial\tau} + \Phi_n\frac{\partial\alpha}{\partial\tau}\}$$

So, the LHS part in equation is zero and now the equation becomes-

$$\frac{\partial\alpha}{\partial\tau}\phi_b + \frac{\partial\phi_b}{\partial\tau}\alpha = \sum_{i\in\mathbb{R}} (\frac{\partial}{\partial\tau}\Psi_{n-1}^c)_i + \sum_{i\in\mathbb{R}} \alpha_i(\frac{\partial}{\partial\tau}\Phi_{n-1}^c)_i + \sum_{i\in\mathbb{R}} \frac{\partial\alpha_i}{\partial\tau}(\Phi_{n-1}^c)_\mathrm{i} + \frac{\partial f(\phi,\psi)}{\partial\tau} \quad (15)$$

Now by putting $d\tau = kd\Phi_{u_f}$ in equation (15)-

$$\frac{\partial\alpha}{\partial\Phi_{u_f}}\phi_b + \frac{\partial\phi_b}{\partial\Phi_{u_f}}\alpha = \sum_{i\in\mathbb{R}} (\frac{\partial}{\partial\Phi_{u_f}}\Psi_{n-1}^c)_i + \sum_{i\in\mathbb{R}} \alpha_i(\frac{\partial}{\partial\Phi_{u_f}}\Phi_{n-1}^c)_i + \sum_{i\in\mathbb{R}} \frac{\partial\alpha_i}{\partial\Phi_{u_f}}(\Phi_{n-1}^c)_\mathrm{i} + \frac{\partial f(\phi,\psi)}{\partial\Phi_{u_f}} \quad (16)$$

Now by putting p=1 in equation (14)-

$$(\frac{\partial\beta}{\partial\Phi_{u_f}} - \frac{\partial\gamma}{\partial\Phi_{u_f}})\phi_b + (\beta-\gamma)\frac{\partial\phi_b}{\partial\Phi_{u_f}} = (\frac{\partial\beta}{\partial\Phi_{u_f}} - \frac{\partial\gamma}{\partial\Phi_{u_f}})\alpha'\psi_b + (\beta-\gamma)\alpha'\frac{\partial\psi_b}{\partial\Phi_{u_f}} + (\beta-\gamma)\psi_b\frac{\partial\alpha'}{\partial\Phi_{u_f}} \quad (17)$$

Now by equation (16) multiplying with α'-

$$\because \frac{\partial\phi_b}{\partial\Phi_{u_f}} = -\alpha'\frac{\partial\alpha}{\partial\Phi_{u_f}}\phi_b + \alpha'\sum_{i\in\mathbb{R}} (\frac{\partial}{\partial\Phi_{u_f}}\Psi_{n-1}^c)_i + \alpha'\sum_{i\in\mathbb{R}} \alpha_i(\frac{\partial}{\partial\Phi_{u_f}}\Phi_{n-1}^c)_i + \alpha'\sum_{i\in\mathbb{R}} \frac{\partial\alpha_i}{\partial\Phi_{u_f}}(\Phi_{n-1}^c)_\mathrm{i} + \alpha'\frac{\partial f(\phi,\psi)}{\partial\Phi_{u_f}}$$

By putting the value of $\frac{\partial\phi_b}{\partial\Phi_{u_f}}$ in equation (16)-

$$(\frac{\partial\beta}{\partial\Phi_{u_f}} - \frac{\partial\gamma}{\partial\Phi_{u_f}})\phi_b - (\beta-\gamma)\alpha'\frac{\partial\alpha}{\partial\Phi_{u_f}}\phi_b + (\beta-\gamma)\alpha'\sum_{i\in\mathbb{R}} (\frac{\partial}{\partial\Phi_{u_f}}\Psi_{n-1}^c)_i + (\beta-\gamma)\alpha'\sum_{i\in\mathbb{R}} \alpha_i(\frac{\partial}{\partial\Phi_{u_f}}\Phi_{n-1}^c)_i + (\beta-\gamma)\alpha'\sum_{i\in\mathbb{R}} \frac{\partial\alpha_i}{\partial\Phi_{u_f}}(\Phi_{n-1}^c)_\mathrm{i} + (\beta-\gamma)\alpha'\frac{\partial f(\phi,\psi)}{\partial\Phi_{u_f}} = (\frac{\partial\beta}{\partial\Phi_{u_f}} - \frac{\partial\gamma}{\partial\Phi_{u_f}})\alpha'\psi_b + (\beta-\gamma)\alpha'\frac{\partial\psi_b}{\partial\Phi_{u_f}} + (\beta-\gamma)\psi_b\frac{\partial\alpha'}{\partial\Phi_{u_f}} \quad (18)$$

By multiplying equation (18) by α and $\{ \alpha\alpha' = 1 \}$ –

$$\alpha(\frac{\partial\beta}{\partial\Phi_{u_f}} - \frac{\partial\gamma}{\partial\Phi_{u_f}})\phi_b - (\beta-\gamma)\frac{\partial\alpha}{\partial\Phi_{u_f}}\phi_b + (\beta-\gamma)\sum_{i\in\mathbb{R}} (\frac{\partial}{\partial\Phi_{u_f}}\Psi_{n-1}^c)_i + (\beta-\gamma)\sum_{i\in\mathbb{R}} \alpha_i(\frac{\partial}{\partial\Phi_{u_f}}\Phi_{n-1}^c)_i + (\beta-\gamma)\sum_{i\in\mathbb{R}} \frac{\partial\alpha_i}{\partial\Phi_{u_f}}(\Phi_{n-1}^c)_\mathrm{i} + (\beta-\gamma)\frac{\partial f(\phi,\psi)}{\partial\Phi_{u_f}} = (\frac{\partial\beta}{\partial\Phi_{u_f}} - \frac{\partial\gamma}{\partial\Phi_{u_f}})\psi_b + (\beta-\gamma)\frac{\partial\psi_b}{\partial\Phi_{u_f}} + \alpha(\beta-\gamma)\psi_b\frac{\partial\alpha'}{\partial\Phi_{u_f}} \quad (19)$$

By some manipulation in above equation-

$$\{ \because \alpha\phi_b = \psi_b \quad \& \quad \psi_b - \alpha\phi_b = 0 \}$$

The part-

$$(\frac{\partial\beta}{\partial\Phi_{u_f}} - \frac{\partial\gamma}{\partial\Phi_{u_f}})(\psi_b - \alpha\phi_b) = 0 \quad (20)$$

So-

$$-\frac{\partial\alpha}{\partial\Phi_{u_f}}\phi_b + \sum_{i\in\mathbb{R}} (\frac{\partial}{\partial\Phi_{u_f}}\Psi_{n-1}^c)_i + \sum_{i\in\mathbb{R}} \alpha_i(\frac{\partial}{\partial\Phi_{u_f}}\Phi_{n-1}^c)_i + \sum_{i\in\mathbb{R}} \frac{\partial\alpha_i}{\partial\Phi_{u_f}}(\Phi_{n-1}^c)_\mathrm{i} + \frac{\partial f(\phi,\psi)}{\partial\Phi_{u_f}} = \frac{\partial\psi_b}{\partial\Phi_{u_f}} + \alpha\psi_b\frac{\partial\alpha'}{\partial\Phi_{u_f}}$$

Now by rearranging above equation-

$$\frac{\partial\psi_b}{\partial\Phi_{u_f}}+\alpha\psi_b\frac{\partial\alpha'}{\partial\Phi_{u_f}}+\frac{\partial\alpha}{\partial\Phi_{u_f}}\phi_b = \sum_{i\in\mathbb{R}}\left(\frac{\partial}{\partial\Phi_{u_f}}\Psi_{n-1}^{c}\right)_i + \sum_{i\in\mathbb{R}}\alpha_i\left(\frac{\partial}{\partial\Phi_{u_f}}\Phi_{n-1}^{c}\right)_i + \sum_{i\in\mathbb{R}}\frac{\partial\alpha_i}{\partial\Phi_{u_f}}(\Phi_{n-1}^{c})_i+\frac{\partial f(\phi,\psi)}{\partial\Phi_{u_f}} \quad (21)$$

Here in equation (20)-

$$\left(\frac{\partial\beta}{\partial\Phi_{u_f}}-\frac{\partial\gamma}{\partial\Phi_{u_f}}\right)\neq 0, not\ necesserely\ zero$$

Or in other words-

$$\left(\frac{\partial\beta}{\partial\Phi_{u_f}}-\frac{\partial\gamma}{\partial\Phi_{u_f}}\right)=\zeta \quad (22)$$

{ $\because \zeta$ is different for different bodies and central systems}

$$\partial\beta-\partial\gamma=\zeta\partial\Phi_{u_f}$$

Now by integrating both sides-

$$\beta-\gamma=\int\zeta\partial\Phi_{u_f}+C \quad (23)$$

$$\boxed{\beta=\gamma+\int\zeta\partial\Phi_{u_f}+C} \quad (24)$$

If ζ is not a function of Φ_{u_f} , then-

$$\beta=\gamma+\zeta\int\partial\Phi_{u_f}+C$$

$$\because d\Phi_{u_f}=k'd\tau \ , \{ k'=1/k=k^{-1} \}$$

$$\beta=\gamma+\zeta.k'\int\partial\Phi_{u_f}+C$$

For a definite integration from τ_1 to τ_2 in universal frame of reference-

$$[\beta-\gamma]_{\tau_1}^{\tau_2}=\zeta.k'[\tau_2-\tau_1]$$

For the initiation and final epochs of a central body, we can define the age (in form of universal time) of that particular central system-

$$[\beta-\gamma]_{\tau_{initial}}^{\tau_{final}}=\zeta.k'[\tau_{final}-\tau_{initial}]$$

$$\boxed{\tau_{c.s.}=\frac{k}{\zeta}[\beta-\gamma]_{\tau_{initial}}^{\tau_{final}}} \quad (25)$$

If we add ages of various types of central systems and then take average of them, then we can find the ages between inflations. So-

$$\boxed{\tau_{av}=\frac{1}{t}\sum_{i=1}^{t}(\tau_{c.s.})_i}$$

{t=total number of central systems of particular kind} & {$\because\tau_{av}=\tau_{k_2}$ from equation (9)}

$$\tau_{av}=\frac{1}{t}\sum_{i=1}^{t}\frac{k_i}{\zeta_i}[\beta_i-\gamma_i]_{\tau_{initial}}^{\tau_{final}}=\tau_{k_2}$$

Here $k_2 \in \{2,4,\dots\dots\dots,2n\}$

If we add up to all τ_{av} for n-central systems, then-

$$\sum_{j=1}^{n}(\tau_{av})_j=\sum_{j=1}^{n}\frac{1}{t_j}\sum_{i=1}^{t_j}\frac{k_i}{\zeta_i}[\beta_i-\gamma_i]_{\tau_{initial}}^{\tau_{final}}=\sum_{\substack{k_2\ is\ even\\ k_2\le 2n}}(\tau_u)_{k_2}$$

So, the equation becomes-

$$\boxed{\sum_{\substack{k_2\ is\ even\\ k_2\le 2n}}(\tau_u)_{k_2}=\sum_{j=1}^{n}\frac{1}{t_j}\sum_{i=1}^{t_j}\frac{k_i}{\zeta_i}[\beta_i-\gamma_i]_{\tau_{initial}}^{\tau_{final}}} \quad (26)$$

Now by calculation of ages of various inflations and summing up with even ages we can calculate the exact age of universe.

$$\{\because \tau_u=\sum_{\substack{k_1\ is\ odd\\ k_1\le 2n}}(\tau_u)_{k_1}=\sum_{j=1}^{n}\frac{1}{t_j}\sum_{i=1}^{t_j}\frac{k_i}{\zeta_i}[\beta_i-\gamma_i]_{\tau_{initial}}^{\tau_{final}}\}$$

Here odd ages are ages of inflations and even terms are ages of formation to perfection of central systems.

$\delta\beta=\beta_{final}-\beta_{initial}$ & $\delta\gamma=\gamma_{final}-\gamma_{initial}$

So, age of universe can be written in form of-

$$\boxed{\tau_u=\sum_{\substack{k_1\ is\ odd\\ k_1\le 2n}}(\tau_u)_{k_1}=\sum_{j=1}^{n}\frac{1}{t_j}\sum_{i=1}^{t_j}\frac{k_i}{\zeta_i}[\delta\beta_i-\delta\gamma_i]}$$

Here $t_j\in\mathbb{R}$ (27)

So, we can calculate even ages (ages between two inflations) via calculating the evolution of n-central systems. Now there exist two types of conversion with respect to two different perspectives-

$$\psi=\alpha\phi \quad (a)$$

$$\psi=-\alpha\phi \quad (b)$$

Now by differentiating (a) with respect to universal scalar field-

$$\boxed{\frac{\partial\psi(a)}{\partial\Phi_u}-\alpha\frac{\partial\phi(a)}{\partial\Phi_u}-\phi(a)\frac{\partial\alpha}{\partial\Phi_u}=0} \quad (28)$$

And by differentiating (b) with respect to universal scalar field-

$$\boxed{\frac{\partial\psi(a)}{\partial\Phi_u}+\alpha\frac{\partial\phi(a)}{\partial\Phi_u}+\phi(a)\frac{\partial\alpha}{\partial\Phi_u}=0} \quad (29)$$

Now by adding both equations-

$$2\frac{\partial\psi(a)}{\partial\Phi_u}=0$$

{Here $\psi(a)$ is a quantity on universal epoch a.}

Or

$$\frac{\partial\psi(a)}{\partial\Phi_u}=0 \quad (30)$$

{So $\psi(a)$ is constant}

Now by multiplying both equations (28) and (29)-

$$\left(\frac{\partial\psi(a)}{\partial\Phi_u}-\alpha\frac{\partial\phi(a)}{\partial\Phi_u}-\phi(a)\frac{\partial\alpha}{\partial\Phi_u}\right)\left(\frac{\partial\psi(a)}{\partial\Phi_u}+\alpha\frac{\partial\phi(a)}{\partial\Phi_u}+\phi(a)\frac{\partial\alpha}{\partial\Phi_u}\right)=0$$

Now by some calculations we get-

$$\boxed{\left(\frac{\partial\psi(a)}{\partial\Phi_u}\right)^2=\left(\alpha\frac{\partial\phi(a)}{\partial\Phi_u}\right)^2+\left(\phi(a)\frac{\partial\alpha}{\partial\Phi_u}\right)^2-2\alpha\phi(a)\frac{\partial\phi(a)}{\partial\Phi_u}\frac{\partial\alpha}{\partial\Phi_u}}$$

Or this can be written as-

$$\left(\frac{\partial\psi(a)}{\partial\Phi_u}\right)^2 = \left(\alpha\frac{\partial\phi(a)}{\partial\Phi_u} - \phi(a)\frac{\partial\alpha}{\partial\Phi_u}\right)^2$$

Now by multiplying both relations (a) and (b)-

$$(\psi - \alpha\phi)(\psi + \alpha\phi) = 0$$

$$\Rightarrow \boxed{\psi^2 - (\alpha\phi)^2 = 0} \tag{31}$$

Now by subtracting equation (29)-(28) we get-

$$\boxed{\alpha\frac{\partial\phi(a)}{\partial\Phi_u} + \phi(a)\frac{\partial\alpha}{\partial\Phi_u} = 0} \tag{32}$$

$$\left\{\frac{\partial\big(\alpha\phi(a)\big)}{\partial\Phi_u} = 0\right\} \tag{33}$$

So, conservation of all quantities and scalar fields led us to conservation of these quantities in universe because if one body is losing some quantity or scalar fields $(\psi - \alpha\phi)$ then another one is gaining that particular quantity or scalar field as$(\psi + \alpha\phi)$.

Now by multiplying and dividing by dτ to equation (30) –

$$\frac{\partial\psi(a)}{\partial\Phi_u}.\frac{d\tau}{d\tau} = 0$$

$$\frac{\partial\psi(a)}{\partial\tau}.\frac{1}{\partial\Phi_u/_{\partial\tau}} = 0 \tag{34}$$

For the equation (34) there is only one solution-

$$\frac{\partial\psi(a)}{\partial\tau} = 0, {}^{\partial\Phi_u}/_{\partial\tau} \neq 0 \; for\ stability\ of\ equation\ (34)$$

∵As we know from equation (7), if $\left\{\frac{\partial\Phi_u}{\partial\tau} \neq 0\right\}$-

$$\left\{\sum_{n\in\mathbb{R}}\eta\Phi_n^c.\frac{\partial N}{\partial\tau} + N.\sum_{n\in\mathbb{R}}\frac{\partial\eta}{\partial\tau}\Phi_n^c + N.\sum_{n\in\mathbb{R}}\eta\frac{\partial\Phi_n^c}{\partial\tau} \neq 0\right\} \tag{35}$$

From (33) also relation (35) holds

$$\frac{\partial\big(\alpha\phi(a)\big)}{\partial\Phi_u}\times\frac{d\tau}{d\tau} = 0 \Rightarrow \frac{\partial\big(\alpha\phi(a)\big)}{\partial\tau}.\frac{1}{\partial\Phi_u/_{\partial\tau}} = 0$$

So-

$$\frac{\partial\big(\alpha\phi(a)\big)}{\partial\tau} = 0, \left\{\frac{\partial\Phi_u}{\partial\tau} \neq 0\right\}$$

Now I am giving a break to this particular article by concluding some facts from this third paper.

4. Conclusions

From this particular article some beautiful outcomes come into appearance-

- We can calculate exact age of universe by evolution of central systems.
- There exist n-central systems in universe according to n-inflations of universe.
- There exist minor singularities before starting a new inflation.
- When same type of central systems tend to perfection $(\eta \to 1)$, then there is an indication of new inflation of universe.
- Laws of physics are different in different central systems due to change in their geometrical scale.
- Each and every type of central system does contain two types of bodies "Perfect and Imperfect".
- Perfect bodies are moving around imperfect center in each central system in universe.
- Every central system is different in their quantity and scalar field.

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