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Space And Dark Matter Made Of Yangton And Yington Bubbles

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Abstract
It Is Proposed That "Yangton And Yington Bubbles", A Temporary Yangton And Yington Particle Pair With Inter-Attractive Force Of Creation, Are The Building Blocks Of Space. Also, "Wu's Pairs", A Permanent Yangton And Yington Particle Pair With Inter-Attractive Force Of Creation Circulating Against Each Other On An Orbit, Are The Building Blocks Of Matter.
As Yangton And Yington Bubbles Are Created From None, And Wu's Pairs Are Produced From Yangton And Yington Bubbles, Both Corresponding Space And Energy Are Cogenerated In Order To Keep Yangton And Yington Bubbles And Wu's Pairs In A Corresponding Space And Stay At A Corresponding Energy State Resulting From The Interaction Between Force Of Creation And The Corresponding Space. In Addition, Time Reflects The Changes Of Distribution Of Energy And Motion Of Matter. As A Result, Four Elements Of The Universe: Space, Time, Energy And Matter Could All Be Created With Yangton And Yington Particles And Force Of Creation At The Same Time Based On The Revised Five Principles Of The Universe.
Furthermore, Composed Of Yangton And Yington Particles, Even Only Frequently Exist, Yangton And Yington Bubbles Are Considered As Half Of Wu's Pairs With 50% Of The Mass. Also, As The Building Blocks Of Space, Yangton And Yington Bubbles Exist Everywhere In The Universe. Therefore, It Is Believed That Yangton And Yington Bubbles And Dark Matter Are The Same Thing Which Interprets The Properties Of Dark Matter And Also Gives An Indirect Proof To Its Existence.

Keywords: *Space, Energy, Matter, Time, Big Bang, Singularity, Subatomic Particles, Wu's Pairs, Yangton And Yington Bubbles, Five Principles Of The Universe, Yangton And Yington Theory, String Theory, Unified Field Theory, Dark Matter.*

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I. God's Particles

God's Particles [1] are defined as the building blocks of the universe. They contain simple structures and are the finest particles in the universe. Taking more than a dozen subatomic particles such as quarks and leptons as the building blocks (God's Particles) of the whole universe is just unbelievable. It is against to our experience and common sense. Therefore, it is my belief that something simple and popular such as photons should be the basic building blocks (God's Particles) of all the matters in the universe. Although taking photons as the building blocks of the universe sounds crazy, ask yourself why we can find photons everywhere in the universe such as that in the thermal radiation, nuclear reaction, electron oscillation, particle collision, and even in the early stages of the Big Bang explosion. If indeed that the photons are the building blocks (God's Particles) of all matters in the universe, then what the photon structure is, where it comes from and how to combine them together to build all subatomic particles become a big challenge to all scientists.

II. Yangton and Yington Theory

Yangton and Yington Theory [2] is a hypothetical theory based on a pair of superfine Yangton and Yington antimatter particles with built in inter-attractive Force of Creation circulating against each other on an orbit. These pairs of Yangton and Yington circulating particles are named "Wu's Pairs" which is considered as the building blocks of the universe.

Yangton and Yington Theory can be used successfully in explanation of that subatomic particles with string structures [3] are built upon Wu's Pairs and String Force in compliance with String Theory [4], also String force and Four Basic Forces are induced from Force of Creation in accordance to Unified Field Theory [5].

Furthermore, Yangton and Yington Theory can very well bridge Quantum Theory with Relativity, also interprets and correlates space, time, energy and matter in the universe. Therefore, it is believed that Yangton and Yington Theory is a theory of everything [6].

III. Five Principles of The Universe

In the universe with pre-existing space and energy, God's Particles, the building blocks of all matters in the universe, should be generated based on the following "Five Principles of The Universe" [7]:

1. There was Nothing in the universe in the beginning.
2. Nothing to Something must be a reversible process.
3. The Something must be a pair of Antimatter particles with inter-attractive force such that they can attract and destroy each other.
4. From Something to permanent matter there must be an external energy to cause a constant circulation motion between the two Antimatter particles so as to avoid them from recombination and destruction.
5. Eventually the whole universe will end and go back to Nothing.

More specifically, the five principles can be described as follows:

The 1st principle: "There was Nothing in the universe in the beginning". This is a result of logical thinking. Otherwise, if the universe started from Something then one will always ask where that Something came from. Also, Nothing means zero Matter. It is different from None which has no space, time, energy or matter.

The 2nd principle: "Nothing to Something must be an instant reversible process". This is also a result of logical thinking. Common sense tells us that everything that has a beginning must have an end. The question is how it ends? And how long it takes to end? Logically, it is more easily just to reverse the initial process from Something back to Nothing instead of creating a "new thing" in between.

The 3rd principle: "The Something must be a pair of Antimatter particles with inter-attractive force such that they can attract and destroy each other". As a result of logical thinking, the only possibility that Something can go back to Nothing after formation is that the Something must be a pair of Antimatter particles with built-in self destruction mechanism such as a pair of Antimatter Yangton and Yington particles with a built-in inter-attractive force for self destruction. The Something is a temporary matter, it can be self destroyed after the formation.

The 4th Principle: "From Something to permanent matter there must be an external energy to cause a circulation motion between the two Antimatter particles so as to avoid recombination and destruction". Since circulation motion can be generated between two particles moving in opposite directions by two opposite external forces while having an attractive force holding them together, therefore, with Big Bang explosion as the external forces and Force of Creation as the attractive force, two Antimatter particles can form permanent circulation motion without recombination and destruction. This principle complies nicely with Big Bang Theory.

The 5th Principle: "Eventually the whole universe will end and go back to Nothing". With logical thinking the universe can only be ended with Nothing, otherwise it will become a never ending story. Only going back to Nothing can stop this paradox.

IV. Yangton and Yington – The Fundamental Particles

In order to satisfy 1st Principle and 2nd Principle of the Five Principles of The Universe, it is obvious that 3rd Principle must contain "Yangton and Yington", a pair of superfine Antimatter particles [2] which can only be produced together with an inter-attractive Force of Creation simultaneously from an empty space (Nothing). This "Yangton and Yington" pair with Force of Creation called Something can recombine and destroy each other so that Something can go back to Nothing, which obeys 2nd Principle. Both Yangton and Yington are the fundamental particles of the universe. They can be used to form Something (Fig. 1) as that of 3rd Principle and also Wu's Pair (Fig. 2) as that of 4th Principle. Something is only a temporary particle, but Wu's Pair is a permanent particle which is the building block of all matters such as quarks, leptons, bosons, graviton, photon, electron, positron, neutron, proton, etc.

Instead of solid particles, Yangton and Yington can also be considered as two tiny energy whirlpools (energy particles) with opposite spin directions, spin up (Yangton) and spin down (Yington), generated by the energy from Nothing or released from the Big Bang explosion.

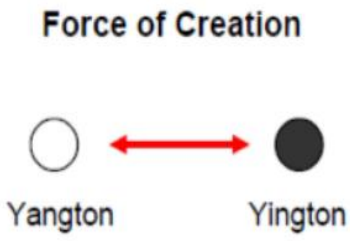

Fig. 1 Something - a Yangton and Yington pair with Force of Creation.

V. Force of Creation – The Fundamental Force

According to 3rd Principle, Yangton and Yington must coexist with an inter-attraction force named "Force of Creation" (Fig. 1), such that recombination and destruction can be enforced and Something will go back to Nothing. Therefore, the reaction of this reversible process can be represented by the following formulas:

Nothing → Yangton Θ Yington $\quad \Delta E = E_{Creation}$

$E_{Creation}$ ↔ Yangton Θ Yington

Where Θ represents Force of Creation, Yangton Θ Yington represents Something, and $E_{Creation}$ is Energy of Creation including the formation energies of Yangton and Yington (energy particles) and Force of Creation.

The inter-attractive "Force of Creation" between Yangton and Yington is the fundamental force of the universe, which can be used to generate the String Force for the formation of elementary subatomic particles such as quarks, leptons, gluons and bosons; as well as Four Basic Forces which is induced from String Force, including gravitational force, electromagnetic force, weak force and strong force for the formation of composite subatomic particles such as graviton, proton, neutron and nucleus.

In addition to that Wu's Pairs are the building blocks of all matters, Force of Creation is the foundation of Unified Field Theory that all subatomic particles are made of surges of fields, and Single Force Theory that all forces are generated from Force of Creation.

VI. Big Bang – How the Universe Get Started?

About 13.8 billion years ago, there was no space, time, energy or matter, which is known as "None". Then a Big Bang [8] exploded. Immediately, space was created and energy was released from a single point known as "Singularity". Energy released from Big Bang explosion could be used to form Yangton and Yington (energy particles) and Force of Creation, also to provide the external force (4th Principle) to cause the circulation of Yangton and Yington Pairs. This circulation can prevent the recombination and destruction of the Yangton and Yington Pairs such that Something cannot go back to Nothing thus a permanent Wu's Pairs (Fig. 2) [2] could be formed. As a consequence, all matters were built upon Wu's Pairs and the universe got started.

VII. Circulation – How Matters Become Permanent?

The energy released from the Big Bang explosion could drive Yangton and Yington particles into a circulation motion [2]. This circulation motion not only prevents the attraction and destruction between Yangton and Yington particles, but it also makes them alive in operation.

Circulation can also be found commonly in our cosmos such as that electron circulating the nucleus, moons circulating planets, planets circulating stars, stars circulating the galaxies, etc. Therefore, circulation is the key to make a matter exist permanently. This is a logical thinking.

VIII. Wu's Pair – The Building Block of the Universe

According to the 4th Principle, with the external energy generated from Big Bang explosion, a Yangton and Yington circulating pair with an inter-attractive Force of Creation named "Wu's Pair" (Fig. 2) can be formed so that Something can become a permanent matter. These Wu's Pairs are the fundamental building blocks (God's Particles) of all the matters in the universe such as quarks, leptons, bosons, graviton, photon, electron, positron, neutron, proton, etc.

From Something to a permanent Wu's Pair, the reaction process can be represented by the following formulas:

Yangton Θ Yington → Yangton Φ Yington $\quad \Delta E = E_{Circulation}$

$E_{Creation} + E_{Circulation}$ ↔ Yangton Φ Yington

Where Yangton Θ Yington represents Something – a temporary Yangton and Yington pair. Yangton Φ Yington represents Wu's Pair – a permanent Yangton and Yington circulating pair. $E_{Creation}$ is Energy of Creation which is used to generate Yangton and Yington (energy particles) and Force of Creation. $E_{Circulation}$ is the circulation energy which includes both potential and kinetic energies of the circulation. The summation of

$E_{Creation}$ and $E_{Circulation}$ is called "Wu's Pair Formation Energy" which can be generated from Big Bang explosion and nuclear reaction.

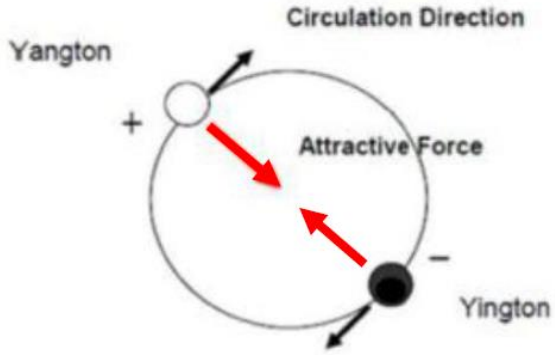

Fig. 2 Wu's Pair - a Yangton and Yington circulating pair.

IX. Photon – A Free Wu's Pair

When Wu's Pair released from a substance, it becomes a free particle moving in the normal (axial) direction of Yangton and Yington circulation plane. It is known as "Photon". Photon travels in space at a constant Absolute Light Speed $3x10^8$ m/s, while observed at the light source. The reaction process can be represented as follows:

Yangton Φ Yington → Photon $\Delta E = h\nu$

Where Yangton Φ Yington is Wu's Pair and hν is photon's kinetic energy.

Since photon is a free Wu's Pair, it is indeed a God's Particle, which also explains why photon is the most popular particle observed in the universe.

X. Space and Dark Matter Made of Yangton and Yington Bubbles

Among the four basic elements of the universe: space, time, energy and matter, it is believed that space and energy are the primary elements. Time and matter are the induced secondary elements. Actually, matter is made of energy and represents the distribution of energy. Time on the other hand records the changes of distribution of energy and motion of matter.

Previously it is believed that Space and Energy were cogenerated prior to Matter and Time in Singularity from None during Big Bang explosion. The process should be reversible such that space and energy can recombine to destroy each other so as to ensure that everything eventually will return back to None.

None ↔ Space + Energy

Subsequently, after space and energy were generated from None, temporary Yangton and Yington Pairs with Force of Creation named "Yangton and Yington Bubbles" were produced from Nothing (zero Matter) by Energy of Formation to occupy a volume of existing space known as the dimension of Yangton and Yington Bubble.

Recently, an unprecedented idea comes to my mind. Just like that all Matter is composed of Wu's Pairs – the permanent Yangton and Yington circulating pairs, could the Space be made of Yangton and Yington Bubbles, the temporary Yangton and Yington Pairs with Force of Creation? With this new idea that Space is made of Yangton and Yington Bubbles produced by Energy of Formation from Nothing (zero Matter), one should ask where the Energy of Formation comes from and how the Space is produced and constructed.

It is believed that Energy of Creation is first generated from Singularity during Big Bang explosion at the beginning of the universe and later contributed by the kinetic energy of moving particles in the space. Although Yangton and Yington Bubble is a temporary particle, it can be continuously regenerated from Nothing by Energy of Formation to create a unit volume of space, such that the entire Space can be constructed and maintained as a network of Yangton and Yington Bubbles. Like H_2O molecules in water, Space can be considered as the Sea of Yangton and Yington Bubbles (Fig. 3). Also an object composed of Wu's Pairs can move freely in Space just like that a fish can swim anywhere in the ocean but not beyond the boundary.

Furthermore, composed of Yangton and Yington particles, even only frequently exist, Yangton and Yington Bubbles are considered as half of Wu's Pairs with 50% of the mass. Also, as the building blocks of Space, Yangton and Yington Bubbles exist everywhere in the universe. Therefore, it is believed that Yangton and Yington Bubbles and Dark Matter [9][10] are the same thing which interprets the properties of Dark Matter and also gives an indirect proof to its existence.

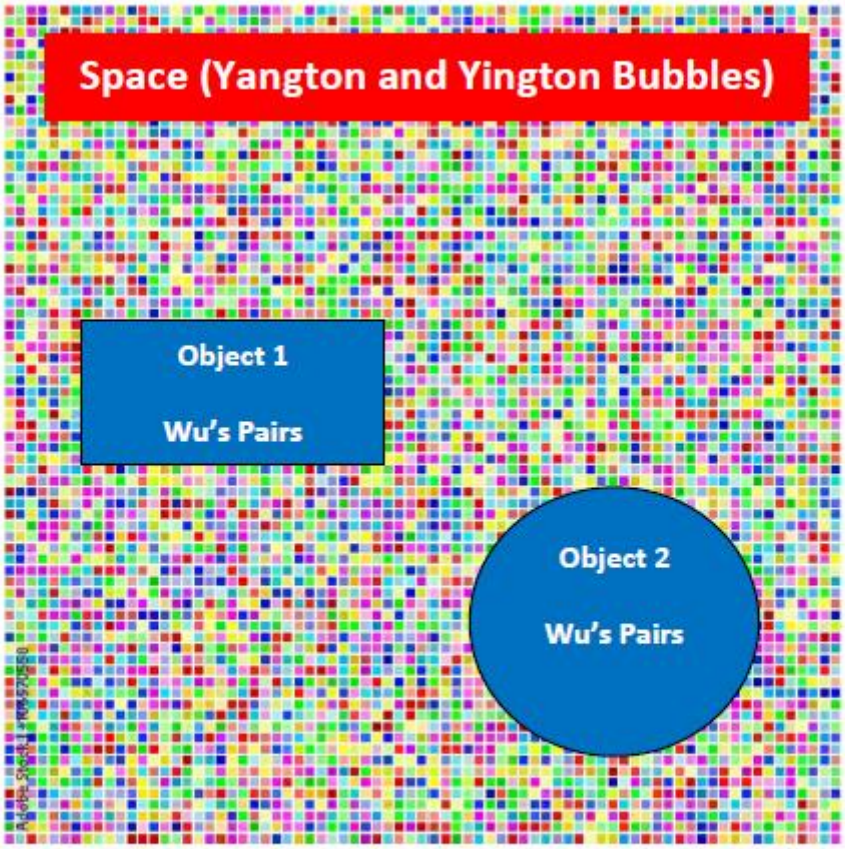

Fig. 3 The correlation between "Space" composed of Yangton and Yington Bubbles and "Matter" composed of Wu's Pairs.

XI. Creation of Space and Energy

Although the idea that Space is made of Yangton and Yington Bubbles sounds cool, it is incomplete to leave the Energy along in mystery. In order to solve this problem and to corporate the generation of Space and Energy together with Matter and Time, Five Principles of The Universe is revised as follows (italicized text):

1. There was *None* in the universe in the beginning.
2. *None* to Something must be an *instant reversible process*.
3. The Something must be a pair of Antimatter particles with inter-attractive force such that they can attract and destroy each other. *Meanwhile, Space and Energy are cogenerated in order to hold Something in a volume of Space with an accumulative state of energy*.
4. From Something to permanent matter *additional internal energy is generated to drive* circulation motion between the two Antimatter particles so as to avoid them from recombination and destruction.
5. Eventually the whole universe will end and go back to Nothing.

First, it is important to know that Law of Conservation of Energy cannot be applied to Creation of Energy, simply because that Space is cogenerated with Energy. Law of Conservation of Energy is only true in energy transformation between two systems without Creation of Space. Also, Force of Creation is the nature strength to take the system back to None. The interaction between Force of Creation and the created Space defines the internal Energy of the system. Furthermore, because both Space and Energy are cogenerated together with Matter, all process has to start from None instead of Nothing.

The revised Five Principles of The Universe can be discussed in details as follows:

The reversible process in 2nd Principle should happen instantly after the formation of Something. Otherwise, Something will become permanent and can be generated and exist anywhere in the universe. Therefore, it is believed that None to Something must be an instant reversible process.

The formation reaction of temporary Yangton and Yington Bubbles in 3rd Principle should be revised as follows:

None $\leftrightarrow$ Yangton Θ Yington + S_{Bubble} + E_{Bubble}

Where None has no space, time, energy and matter, Θ represents Force of Creation, Yangton Θ Yington represents Yangton and Yington Bubble (Something), S_{Bubble} is the space generated by the Bubble and E_{Bubble} is Bubble's internal energy generated by the interaction between Force of Creation and the corresponding space generated by the Bubble.

Although this reaction doesn't need any external Energy of Formation as reactant, small external activation energy is required to make it an instant reversible reaction. Once this process is triggered, it will be continuously reversed and recycled by itself. Also, it is believed that the activation energy is first produced by the string forces between the overcrowded Yangton and Yington Bubbles generated from the tiny point Singularity during Big Bang explosion at the beginning of the universe, and later contributed by the kinetic energy of moving particles.

Similarly, the formation reaction of permanent Wu's Pairs in 4th Principle should be revised as follows:

Yangton Θ Yington + S_{Bubble} + E_{Bubble} → Yangton Φ Yington + S_{Bubble} + E_{Bubble} + $S_{Wu's\ Pair}$ + $E_{Circulation}$

Where Yangton Θ Yington represents temporary Yangton and Yington Bubble. Yangton Φ Yington represents permanent Wu's Pair. S_{Bubble} is the space generated by the Bubble and E_{Bubble} is Bubble's internal energy generated by the interaction between Force of Creation and the corresponding space generated by the Bubble. $S_{Wu's\ Pair}$ is the corresponding space generated by Wu's Pair and $E_{Circulation}$ is the circulation energy generated by the interaction between Force of Creation and the corresponding space generated by Wu's Pair.

Again, this reaction doesn't need any external Energy of Circulation as reactant. However, it is triggered by much bigger activation energy than that of the Bubble formation reaction, which can only be produced by the string forces between the overcrowded Yangton and Yington Bubbles generated from the tiny point Singularity during Big Bang explosion at the beginning of the universe. Also, it is believed that Energy of Circulation generated in Wu's Pairs formation reaction is much bigger than Bubble's Internal Energy generated in Yangton and Yington Bubbles formation reaction, because Wu's Pairs have much bigger size than that of Yangton and Yington Bubbles. Furthermore, due to the large activation energy, Wu's Pairs maintain permanent without reverse and break down unless under severe environments such as black hole or final stage of aging of the universe.

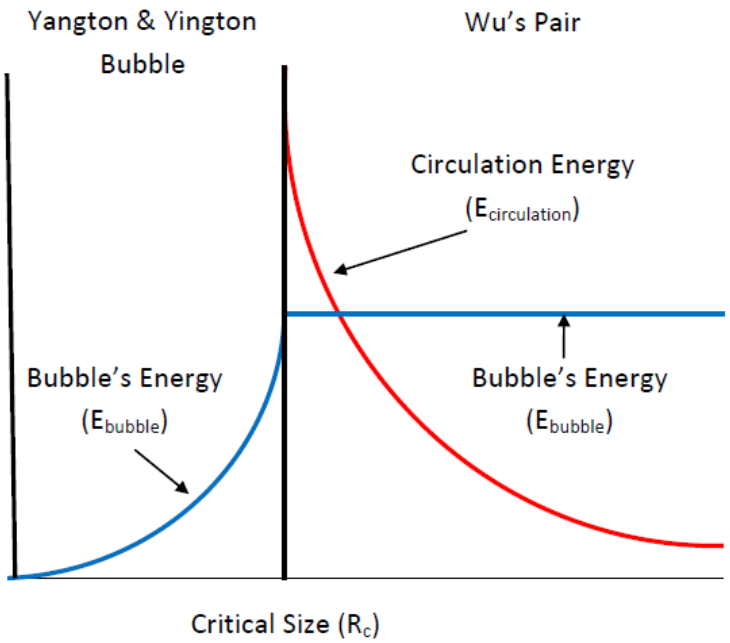

Fig. 4 Energy (E_{Bubble}) and Space (S_{Bubble}) are generated with temporary Yangton and Yington Bubble which increase with the size of Yangton and Yington Bubble by Hook's Law. Once the critical size is reached, permanent Wu's Pair is formed. Additional energy ($E_{circulation}$) and space ($S_{Wu's\ Pair}$) following Coulomb's Law are created for Yangton and Yington circulation.

Fig. 4 shows the correlations between Bubble's internal energy (E_{Bubble}) generated by temporary Yangton and Yington Bubbles and circulation energy ($E_{Circulation}$) generated by permanent Wu's Pairs. Before reaching the critical size, triggered by small external activation energy, temporary Yangton and Yington

Bubbles can be generated with both corresponding space and internal energy following Hook's Law. Once the critical size is reached, further triggered by large external activation energy, permanent Wu's Pairs can be created with additional space and energy following Coulomb's Law for Yangton and Yington circulation.

In conclusion, it is believed that Yangton and Yington Bubbles are the building blocks of Space and Wu's Pairs are the building blocks of Matter. Also, Energy can be generated by the interaction between Force of Creation and the Corresponding Spaces created by Yangton and Yington Bubbles and Wu's Pairs. In addition, Time reflects the changes of distribution of energy and motion of matter. As a result, four elements of the universe: Space, Time, Energy and Matter could all be naturally created at the same time with Yangton and Yington particles and Force of Creation based on the revised Five Principles of the Universe.

XII. Creation of Matter

It is proposed that a number of superfine Yangton and Yington Antimatter particle pairs with inter-attractive Force of Creation were generated in the Singularity by absorbing energy from the Big Bang explosion. Also, because of the enforcement of the inter-attractive Force of Creation, Yangton and Yington particles can recombine and destroy each other such that Something can go back to Nothing.

By further absorbing external energy from Big Bang explosion, the temporary Yangton and Yington Pairs can become a permanent Wu's Pairs with a circulation balanced between the centrifugal force and the inter-attractive Force of Creation.

Instead of a solid particle, Yangton and Yington can also be considered as two tiny energy whirlpools (energy particles) with opposite spin up (Yangton) and spin down (Yington) directions.

Recently, a new unprecedented idea is proposed that Space and Energy can be cogenerated together with Yangton and Yington Bubbles and Wu's Pairs with no need of any external energy in the reactions. However, to trigger the reactions, some activation energy is required. It is believed that the activation energy is first produced by the string forces between the overcrowded Yangton and Yington Bubbles generated from the tiny point Singularity during Big Bang explosion at the beginning of the universe for the creation of both Yangton and Yington Bubbles and Wu's Pairs, and later contributed by the kinetic energy of moving particles for only the creation of Yangton and Yington Bubbles.

Once Wu's Pairs were formed, all subatomic particles such as quarks, leptons, bosons, photon, electron, neutron and proton, with string force and four basic forces including gravitational force, electromagnetic force, weak force and strong force can be generated from Wu's Pairs and inter-attractive Force of Creation. Simple atoms were then produced and finally stars and galaxies were formed and the entire universe was born.

XIII. Creation of Time

Time is proposed as a secondary element of the universe. It reflects the sequence of the changes of distribution of energy and motion of matter. Without energy there would be no time. Therefore, time is formed in accompaniment with energy.

XIV. What Actually Happened in the Big Bang Explosion?

The Big Bang Theory (Fig. 5) is the prevailing cosmological model for the universe from the earliest known periods through its subsequent large-scale evolution. The model accounts for the fact that the universe expanded from a very high density and high temperature state, and offers a comprehensive explanation for a broad range of phenomena, including the abundance of light elements, the cosmic microwave background, large scale structure and Hubble's Law. If the known laws of physics are extrapolated to the highest density regime, the result is a Singularity that is typically associated with the Big Bang explosion 13.8 billion years ago. After the initial expansion, the universe cooled sufficiently to allow the formation of subatomic particles, and later simple atoms. Giant clouds of these primordial elements later coalesced through gravity in halos of Dark Matter, eventually forming the stars and galaxies visible today.

According to the revised Five Principles of The Universe of Yangton and Yington Theory, it is assumed that not only Energy and Space, but also Matter and Time were all created at the same time from Singularity in Big Bang explosion at the beginning of the universe. It is believed that temporary Yangton and Yington Bubbles, a superfine Yangton and Yington Antimatter particle (energy) pairs with inter-attractive Force of Creation, as well as permanent Wu's Pairs, a circulating Yangton and Yington pairs with inter-attractive Force of Creation, were first generated from None that is triggered by the corresponding activation energy produced by the string forces between the overcrowded Yangton and Yington Bubbles generated from the tiny point Singularity during Big Bang explosion at the beginning of the universe. Subsequently, subatomic particles were formed by Wu's Pairs with string force and four basic forces. Furthermore, once the first Yangton and Yington Pair were formed, time was created to reflect the changes of distribution of energy and motion of matter.

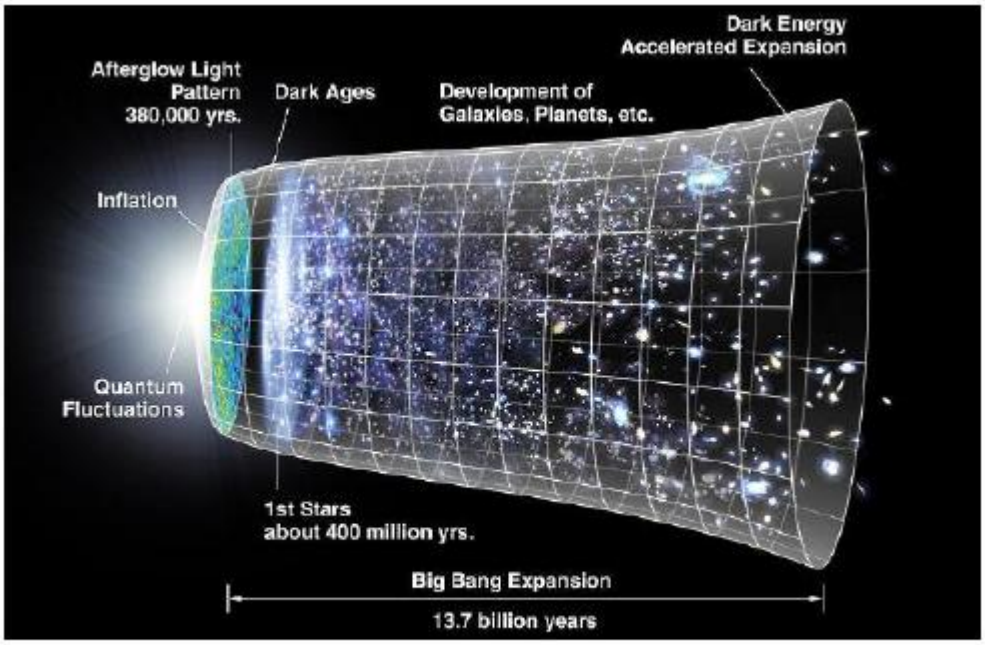

Fig. 5 Big Bang and the expansion of the universe.

XV. Conclusion

It is proposed that "Yangton and Yington Bubbles", a temporary Yangton and Yington particle pair with inter-attractive Force of Creation, are the building blocks of Space. Also, "Wu's Pairs", a permanent Yangton and Yington particle pair with inter-attractive Force of Creation circulating against each other on an orbit, are the building blocks of Matter.

As Yangton and Yington Bubbles are created from None, and Wu's Pairs are produced from Yangton and Yington Bubbles, both corresponding Space and Energy are cogenerated in order to keep Yangton and Yington Bubbles and Wu's Pairs in a corresponding space and stay at a corresponding energy state resulting from the interaction between Force of Creation and the corresponding space. In addition, Time reflects the changes of distribution of energy and motion of matter. As a result, four elements of the universe: Space, Time, Energy and Matter could all be created with Yangton and Yington particles and Force of Creation at the same time based on the revised Five Principles of the Universe.

Furthermore, composed of Yangton and Yington particles, even only frequently exist, Yangton and Yington Bubbles are considered as half of Wu's Pairs with 50% of the mass. Also, as the building blocks of Space, Yangton and Yington Bubbles exist everywhere in the universe. Therefore, it is believed that Yangton and Yington Bubbles and Dark Matter are the same thing which interprets the properties of Dark Matter and also gives an indirect proof to its existence.

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