



International Journal of Sanskrit Research

अनन्ता

ISSN: 2394-7519

IJSR 2024; 10(2): 24-27

© 2024 IJSR

www.anantaajournal.com

Received: 19-12-2023

Accepted: 25-01-2024

Dr. Jyoti Kumari

Assistant Professor and Head,
Department of Sanskrit,
Rajendra College, J.P.
University, Chapra, Bihar, India

The creation of universe: The concept of GOD particle

Dr. Jyoti Kumari

DOI: <https://doi.org/10.22271/23947519.2024.v10.i2a.2325>

Abstract

In understanding the mystery of the creation of universe, the concept of God particles is very helpful to answer this question. A mega experiment was conducted in 2012 by a team of scientists in CERN (Geneva) to find Higgs Boson field or God particles. Higgs Boson field or God particles deal with the theory of creation which is related to Mass and Energy and Gravitational force equation. Srishti prakriya or Creation theory of Universe mentioned in Indian philosophy establishes the concept of atomic theory, the element, the space, mass, dark energy, energy field and big-bang theory. These two concepts have different domains of thought. In philosophical concept God particle can be defined as Brahma Tatva or Brahma principle. The God particle is a term from the field of particle physics that responsible for giving mass to other particles. The term God particle is illusive for Higgs Boson, the vedas have given it a scientific name Golden embryo, which appear in the womb of atom, it constitute the foundation of the creation by imparting mass to elementary particles. In Hiranyagarbha and Nasadiya sukta the concept of formation of universe can be easily found. Now, we see what is the theory behind this Higgs Boson named as God particle. This theory proves how scientists believe the universe was formed. In creation of universe big bang theory plays a vital role as scientist believes. The entire process of evolution in this universe started with the Big Bang. But there is not clear conception about the existence of universe before the big bang. The Rigveda proves the big bang theory idea in the explanation of the secret of universe and its existence. God particle is a crucial part of the Standard Model of particle physics and helps to explain why other particles have mass which is the root cause of creation of Universe, on the other hand Brahma Tatva is the concept of Hindu philosophy. It refers to the essence or principle of creation in the universe.

Keyword: God particle, brahman tattva, particle physics, hiranyagarbha and nasadiya sukta, hindu philosophy

Introduction

The concept of god particles is very important to understand the creation of universe. There are two approaches to discuss this matter.

1. Modern aspect i.e. scientific aspect (Particle physics)
2. Philosophical or spiritual aspect i.e. our Oriental Knowledge.

These two concepts have different domains of thought. In philosophical concept God particle can be defined as Brahma Tatva or Brahma principle. The God particle is a term from the field of particle physics that responsible for giving mass to other particles. Here one basic similarity reflects that both signify the reality i.e. the creation of universe or nature of existence. Both have distinct perspective which is the matter of comparative analysis.

In particle physics the Higgs Boson known as the God particle is an elementary particle that is predicted by the standard model [1].

Scientists confirmed the detection of the long sought Higgs Boson, also known by its nickname the 'God particle' at the Large Hadron Collider (LHC) the most powerful particle accelerator on the planet. This particle helps give mass to all elementary particles that have mass, such as electrons and protons [2].

Is it possible to find God particle in lab? We cannot see electrons, protons in the lab objectively only their effects can be seen. Our ancient knowledge and literatures establish the effect of Brahma Tatva i.e. God particle-तत् त्वमसि [3].

Corresponding Author:

Dr. Jyoti Kumari

Assistant Professor & Head,
Department of Sanskrit,
Rajendra College, J.P.
University, Chapra, Bihar, India

Higgs Boson field or god particles deal with the theory of creation which is related to Mass and Energy and Gravitational force equation. Vedas, Puranas, Upanishads and Indian Philosophy give a theory of Creation and Origin of Universe in detail. Srishti prakriya or Creation theory of Universe mentioned in Indian philosophy establishes the concept of atomic theory, the element, the space, mass, dark energy, energy field and big-bang theory.

Concept of Atomic Theory and Hiranyagarbha sukta

We study three main particles electrons protons and neutrons. The atomic theory of matter seeks to explain the nature of matter- materials of which the universe, all galaxies, solar systems and earth are formed. Atoms are fundamental unit of matters and atoms combine with one another to form more complex units is called molecules. All of the atoms of a given element are identical.

Now it proves that an atom is a basic particles which is also called elementary particle that is actually indivisible. Every atom is composed of a nucleus and one or more electrons bound to the nucleus. The nucleus is made of one or more protons and a number of neutrons. As I have already mentioned that we cannot see these particles in lab, only we see the effect.

God is also not observed objectively only can see the effect. As atomic theory we see the universe, solar system and galaxies and earth these all elements are made of the basic particles. The term God particle is illusive for Higgs Boson, the vedas have given it a scientific name Golden embryo, which appear in the womb of atom, it constitute the foundation of the creation by imparting mass to elementary particles. It explain that the invisible space bind the nucleus, and give mass to the particles, allowing them to clump together to form stars and planets. It has been generated first in the womb of atom. It has been demonstrated on the seal. In the beginning rose Hiranyagarbha, born only Lord of all created beings.

The Hiranyagarbha Sukta of rigveda establishes that God manifested Himself in the beginning as the Creator of the Universe, encompassing all things, including everything within Himself, the collective totality, as it were, of the whole of creation, animating it as the Supreme Intelligence-

Hiranyagarbhah samavartatagre bhutasya jatah patirekasita |
Sa dadhara prithvim dhyamutemam kasmai devayahavisa
vidhema||^[4]

In the beginning rose Hiranyagarbha, born only lord of all created beings. He fixed and holdeth up this earth and heaven. What god shall we adore with our oblation?

It means that Hiranyagarbha was present at the beginning, when born, he was the sole lord of created beings, he upheld this earth and heaven.

Quantum mechanics, Quantum physics and Nasadiya sukta

In rigveda, there is sukta called Nasadiya Sukta, in the 10th Mandal 129th Adhyaya, there, around seven verses are written. In the seven verses of the hymn of Creation, it is so striking how these aspects which we know through quantum mechanics and through quantum physics were then and there.

Non- being then existed not nor being:
There was no air, nor sky that is beyond it.

What was concealed? Wherein? In whose protection?
And was there deep unfathomable water?
Death then existed not nor life immortal;
Of neither night nor day was any token.
By its inherent force the One breathed breathless:
No other thing than that beyond existed.
Darkness there was at first by darkness hidden;
Without distinctive marks, this all was water.
That which, becoming, by the void was covered,
That One by force of heat came into being.
Desire entered the One in the beginning:
It was the earliest seed, of thought the product.
The sages searching in their hearts with wisdom,
Found out the bond of being in non- being.
Their ray extended light across the darkness:
But was the One above or was it under?
Creative force was there, and fertile power:
Below was energy, above was impulse.
Who knows for certain? Who shall here declare it?
Whence was it born, and whence came this creation?
The gods were born after this world's creation:
Then who can know from whence it has arisen?
None knoweth whence creation has arisen;
And whether he has or has not produced it:
He who surveys it in the highest heaven,

He only knows, or haply he may know not. In Hiranyagarbha and Nasadiya sukta the concept of formation of universe can be easily found. Now, we see what is the theory behind this Higgs Boson named as God particle. This theory proves how scientists believe the universe was formed. The media calls the Higgs boson the God particle because, according to the theory laid out by Scottish Physicist Peter Higgs and others in 1964, its the physical proof of an invisible, universe- wide field that gave mass to all matter right after the Big Bang, forcing particles to coalesce into stars, planets and everything else. If the Higgs field, and Higgs boson did not exist, the dominant standard model of particle physics would be wrong. "No Higgs, no mass, no you, me or anything else."-नेह नानास्ति किंचन|^[6]

Energy field and Sat-chit-ananda(Brahman)

In the discussion about God particle it can be easily understood that God particle means brahma tattva. Tattva means principle. Like god particle, Vedic rishis said brahman principle. Though unknown and unknowable, Brahma is yet the eternal 'knower of knowing' and also the goal of all knowledge^[7]. It is the Consciousness that function through the senses but cannot be known by them. The Upanishads reiterate that Its realization is the supreme purpose of life. Having realized atman.....one is freed from the jaws of death. It is the supreme Unity of all contradiction: in It alone all differences are harmonized.

Brahma and Atman both are identical-ayam atman Brahma⁸, Aham brahma asmi^[9], Raso vai sah^[10]. The finding of god particles means the finding of atman tattva as our vedic sages said. All objects, animate and inanimate, are included in It. Gods, men and subhuman beings are parts of it. As the unchanging reality behind the universe, It is called Brahma by the Hindu philosophers; and as the indestructible Spirit in man, It is called Atman.

Atman, smaller than the small, greater than the great, is hidden in the hearts of all living creatures. A man who is free from desires beholds the majesty of the Self through

tranquility of the senses and the mind and becomes free from grief ^[11].

Brahmatatva can be easily understood by the concept of wholeness- OM, THAT is full. This fullness has been projected from that fullness. When this fullness merges in that fullness, all that is fullness.

Om. Peace! Peace! Peace! ^[12]

Brahma is pure consciousness i.e energy field. He is Perfect or Poorna. It means the manifest universe, which, like Pure Consciousness, is perfect, names and forms being maya, which is called mass. Here That is to say when, by means of knowledge, the universe is realized as Brahma.

Modern science dealt with Creation of universe. Scientists have been struggling to figure out how matter came into existence. Two scientists propose a theoretical particle that gives mass to matter which is named as Higgs boson particle after the theorists who proposed it. Now the scientists are carrying out experiments at Cern laboratory in Geneva to actually verify the existence of such a particle.

Cern scientists in Geneva say "God particle" gives matter its mass. So this god particle is the root cause of creation. Matter comes into existence by taking mass from god particle. Our Ancient knowledge defines these all phenomena of creation through Brahma Tatva or god particle. This Brahma is Sachchidananda- Sat (Existence, Reality or Being), chit (consciousness or knowledge) and Anandam (Bliss).

The term Sat means existence or formation of universe. Universe cannot exist without Brahma just as a mirage cannot be seen without the desert. It means Brahma does not exist as an empirical object- for instance, like a pot or a tree but as Absolute Existence, without which material objects would not be perceived to exist. No object, illusory or otherwise, could exist without the foundation of an immutable Existence; and that is Brahma.

In Hiranyagarbha Sukta from Rigveda which state that non-being was in the beginning. In the beginning all this was non-existent. It became existent; it grew. It turned into egg. As early as the Rigveda, it is said of the primeval condition of things that at that time there was nasat, na u sat, neither non-being nor being. But in these texts non- being is used in the sense of non- manifestation.' That is to say, before the creation of names and forms, these things existed only in an unmanifested state. The word sat (being) in the Rig- Veda signifies empirical being.

The universe and objects itself appears as Brahma. This world, objects and other beautiful things they are different in shape, form and name, but this is not reality, this name and form, apart from the substratum, is maya. Practically' one may see a gold bracelet or a gold earring and the difference between them, but in truth they are only gold. It is the same with the ocean and its waves, which identical in essence. The universe is not, in reality, other than Brahman. In the Chhandogya Upanishad ^[13] there is a celebrated scene in which the sage Aruni gives instruction to his son. 'Svetketu, says the father, 'since you are so conceited, considering yourself so well read, and so stern, my dear, have you ever asked for that instruction by which we hear what cannot be heard, by which we perceive what cannot be perceived, by which we know what cannot be known? "What is that instruction, sir?" asks the son. Aruni replies: 'My dear, just as by one clod of clay all that is made of clay may be known, the difference (vikara) being only a name, arising from speech, but the truth being that all is clay; and just as, my dear, by one

nugget of gold all that is made of gold may be known, the difference being only a name arising from speech, but the truth being that all is gold.... even so, my dear, is that instruction.' From the standpoint of name and form, one makes distinctions between the various objects of the world; yet all are, in reality, Brahma tatva i.e. God particle.

Existence of Brahma tatva or god particles everywhere is in the form of mass or this empirical world. The effect, apart from the cause, is nothing but a name, a mere matter of words; it is, in essence, the same as the cause. One makes distinctions between the various objects of the world; yet all are, in reality, Brahman. For nothing whatsoever exists but Brahman.

As it is mentioned that Brahman is chit (consciousness). All stars, sun, moon, light or everything in the universe illumines by the light of Brahma. In new concept it is called energy field that vibrates the inner and outer world. Without Him there is no Atman or Soul.

The whole universe is result of consciousness. It is a play and display of one consciousness. The ancient sages said the same. They said first know the elements; they called even Brahman, the Ultimate, as a Tatva. Tatva means principle. Like God particle, they said Brahman principle.

God is not proved objectively. What is proved objectively- the electron, proton or neutron, but scientists say that they are. If nobody has seen them, why do you say they are? Scientists say, "because though we cannot see them, we can see their effect." The mystic say the same thing "God is not observed objectively, but we can see the effect."

As Brahma is the essence of being, so It is the essence of Consciousness or Light or energy field. It is pure; It is the light of lights; It is That which they know who know the Self.' All materials, objects such as trees, rivers, houses, forests are illumined by the power of Brahma which is not observed but only we can see the effect.

The sun does not shine there, nor the moon and the stars, nor these lightnings- not to speak of this fire. He shining, everything shines after Him. By His light all this is lighted ^[14]. Brahma is bliss. The bliss of Brahma pervades all objects. Without it a man couldn't live. He who is self created is Bliss. It is important to remember that no real bliss is possible without knowledge or consciousness- natu jnanad bhinnam sukhamasti ^[15].

In finding of god particle we must know about the Brahma Tatva. In 2012 an experiment creates a history to know about the creation of universe. There concludes that all living or non living things are made by god particles i.e. Brahma Tatva. In Sanskrit literature references from Vedas, Puranas and scriptures give a solid example of creation of this cosmic universe which is very similar to that of god particle. It makes crystal clear to understand this god particle or Brahma tatva in the classification of Brahma or Atman with various aspects i.e. Sagun and Nirgun Brahma, Sat Chit Ananda and Microcosm and Macrocosm.

The Big Bang Theory: Scientific aspect and Religious aspect

In creation of universe big bang theory ^[16] plays a vital role as scientist believes. The entire process of evolution in this universe started with the Big Bang. But there is not clear conception about the existence of universe before the big bang. The Rigveda proves the big bang theory idea in the explanation of the secret of universe and its existence. It is interesting to know that there is clear connection between the mythological concept of the Hiranyagarbha and the Big Bang theory as we know it today. Theory of evolution in Rigveda is

completely religious aspect and the theory of creation about Big Bang theory is completely scientific.

The term God particle is illusive for Higgs Boson, the Vedas have given it a scientific name Golden embryo, which appear in the womb of atom, it constitute the foundation of the creation by imparting mass to elementary particles. It explains how stars, planets and sky are formed. In the beginning rose Hiranyagarbha, born only lord of all created beings-

.....His, through his might, are these snow- covered mountains, and men call sea and Raja his possession:

His arms are these, his are these heavenly regions. What god shall we adore with our oblation?

By him the heavens are strong and earth is steadfast, by him light's realm and sky- vault are supported:

By him the regions in mid- air were measured. What god shall we adore with our oblation? ^[17]

In 2012, scientists confirmed the detection of the long sought Higgs boson, also known by its nick-name the "God-particle" at the Large Hadron Collider (LHC) the most powerful particle accelerator on the planet. This particle helps give mass to all elementary particles that have mass, such as electrons and protons. The vedic sages said first know the elementary particles, they called even Brahman, the Ultimate, as a tatva. Five elements are basic organs in cosmic and universal formation. These are earth or land, water, light or luster, air and ether ^[18].

Dark energy and Dark matter

In the explanation of the mystery of universe there is a term what scientists call as Dark matter and Dark energy which is everywhere, and which is what we are talking about the Nasadiya Sukta says the same thing.

Nasadasinno sadasittadanim..... gabhiram.

Beyond the space, then, in the beginning, there was neither existence nor non-existence; neither birth nor death. It was all only energy and it also talks about, darkness enveloped by darkness.' In the third verse it says, 'Darkness was all wrapped around by darkness.'

Dark Energy is a hypothetical form of energy that's believed to be responsible for the accelerated expansion of the universe.

Conclusion

It can be said that both concepts involve fundamental aspects of existence: one in particle physics and the other in spiritual and philosophical discussions. God particle is a crucial part of the Standard Model of particle physics and helps explain why other particles have mass which is the root cause of creation of universe, on the other hand Brahma Tatva is the concept of Hindu philosophy. It refers to the essence or principle of creation in the universe.

References

1. Higgs Boson: Physics Questions and Answers by Ahmed Tarek.
2. Scientific articles and papers such as ATLAS and CMS which were involve in the Higgs boson discovery.
3. Chhandogya Upanishad (6|16|3).
4. Rigveda (10|121).
5. Rigveda,10|129- translated by A.A. Macdonnel.
6. Kathopnishad, (2|1|11).
7. Taitiriya Upanishad, (2|1|1).
8. Brihadaranyakopnishad, (2|5|19).
9. Brihadaranyakopnishad, (1|4|10).

10. Taitiriya Upanishad,(2|7|1).

11. Kathopnishad,(1|2|20).

12. Ishavasyopnishad.

13. Chhandogya Upanishad.

14. Kathopnishad,(2|2|15).

15. Upanishad

16. 16.The God Particle: Leon Lederman and Dick Teresi.

17. Rigveda,(10|121|4-5).

18. Aiteraiya Upanishad,(3|3).