The Real God Particle

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The Higgs boson has been described as the "God" particle that will explain everything about the universe according to the popular press. The reality is that the Higgs boson of the Standard Model might only help explain how only certain particles obtain mass. Instead of the heavy Higgs boson found at the LHC, another simpler particle that consists of only a joined positron and electron is considered as the candidate for the real "God" particle. This is a particle that will live up to the hype that a single particle could explain such diverse and seemingly unrelated and unexplained phenomenon such as mass, inertia and magnetism. This is a particle that will explain everything about the universe on a fundamental basis.

1. Introduction

The Higgs boson – AKA – the God particle. A great deal of attention has been paid to this theoretical particle. Yet very few understand the significance of the Higgs boson. The initial motivation for the Higgs was that the standard model doesn't predict that particles have mass. The particles of the standard model should all be massless and zip around at the speed of light. If this were the case, no particles could ever come together to form atoms and the universe would not exist.

To fix this mass problem, it was proposed that there existed a "Higgs field". This field would act somewhat like molasses to slow down particles and give them the property that we know as "mass". Scientists don't know what this field is made up of or how it actually works. It is simply a "field" which slows down particles that are travelling through it. This field affects heavy particles like the W and Z because the field is somehow "coupled" to these particles. On the other hand, the photon is not coupled at all and it remains massless.

What was important to scientists was the "Higgs field" and it is very possible that the Higgs boson doesn't exist. The Higgs field does not need to theoretically rely on a Higgs boson for its existence. There could be other ways the Higgs field could couple with matter particles. The Higgs field is not "made out of" Higgs bosons and these particles don't normally exist in the room you are sitting in.[1]

The only reason why scientists are searching for a Higgs boson is because the theoretical calculations suggested that such a particle might exist and calculations provided the characteristics of such a particle. If such a particle was found, it would be the first hint that the Higgs field actually exists and that we might learn how it works by studying the Higgs boson.

2. The mass mechanism

The Higgs field is supposed to give mass to particles through complex concepts such as "spontaneous symmetry breaking" and "Mexican hat" diagrams. It is very difficult for a layperson to understand how this field is supposed to work like molasses to slow down particles.

When we think of a "field", we normally think of something that is filled with something – like a "field" of corn. You can imagine that if you were trying to run through a corn field, you would get slowed down. You can think of the amount you would get slowed down as your "mass". If you were very fat, the corn would slow you down even more and you would have more "mass".

The key concept is that there is something (like a corn stalk) that is getting in the way of you moving through space. So it makes sense that the Higgs field must be made out of something that gets in the way of mass particles moving through space.

3. What is the Higgs field made out of?

What could the Higgs field made out of? Like a field of corn, the field is made out of individual stalks and these are what get in the way, so it is likely that the Higgs field is also made out of individual entities or particles which get in the way of other matter particles. These particles are not the massive Higgs boson found at the LHC that would disintegrate immediately. You can't create a field out of a particle that instantly disintegrates.

Whatever the Higgs field is built out of must be extremely difficult to detect. The Higgs field is pervasive and exists everywhere including the vacuum of space. No "field" of particles has ever been detected in a vacuum. However, one of the most difficult particles to detect are "neutral" particles. These particles are a combination of positive and negative charge and on the whole, they don't have a net charge. These neutral particles interact very little with matter. They don't leave traces in our particle physics experiments because there is nothing to trigger a trace in a cloud chamber or to record the passage of a particle through a detector. These are invisible ghost particles. The most common neutral particle we know of is the neutron, but this decays in about 15 minutes, so we can't make the Higgs field out of this unstable particle either.

4. The neutral poselectron particle

The simplest neutral particle that we could think of would consist of a single negative charge from an electron and a single positive charge from a positron. This will be known as the 'poselectron' in this paper since it is made out of a positron and an electron. The positron is the anti-matter equivalent of the electron. It is identical to the electron in every way except that it has the opposite positive charge. It should not be confused with the proton which is nearly 2000 times more massive.

However, since the positron is the anti-matter partner of the electron, when you bring them together, they annihilate themselves and are converted in to gamma rays. Conventional wis-

dom says that the particles were "converted" into energy and there is nothing left of the "particles". But what is the evidence that there is no neutral poselectron particle? If a neutral particle were to be formed out of a positron and electron, the result would be exceedingly difficult to detect. It would not show up on any of our detectors and would appear as nothing. So the evidence that we don't "see" anything is not particularly good evidence that the positron and electron really disappeared into energy.

How could we determine if the positron and electron still existed? One way would be to break up the positron/electron particle and then we would see a free positron and electron sprout out of nowhere. This is exactly what happens in "pair-production"[2]. We see gamma rays causing positrons and electrons to appear out of nowhere. We also see positrons and electrons sprouting out of empty space in massive quantities in high energy accelerator experiments. These particles are often considered "junk" reactions and are totally ignored, but it is these "junk" reactions that is telling you that space is made out of poselectrons.

5. Experiment to find the poselectron

Ultimately, only an experiment can tell if the positron and electron form a new and as of yet undiscovered neutral poselectron. The only way we have of detecting neutral particles is by detecting their rare interactions with normal matter. Neutron detectors consist of very large blocks of wax which emit normal radiation when struck by a neutral neutron.

To detect a poselectron, we could create a beam of them by firing closely spaced beams of positrons and electrons in the same direction. The electrostatic force would cause them to react and emit gamma rays. After this collision point, a lead plate would be placed after the reaction point to screen out any remaining positrons and electrons or their reaction products. After this point, a sensitive neutron detector will be placed. If neutral poselectrons are formed, they will sail through the lead plate and will hopefully be detectable by the neutron detector. Other more sensitive neutrino detectors might have to be used, but if particles show up with the kinetic energy of the original positron and electron, then this would positively identify the discovery of the poselectron. This is an experiment that is well within our technological abilities.

The discovery of the poselectron could very well be a watershed event since this would herald the discovery of what space is made out of. Space would not be a mysterious vacuum of nothingness. Space would be completely and totally filled with poselectron particles and it would form what is classically known as the "aether". It would be a material as real as any matter that you could hold in your hands. Based on this knowledge of what spaces is made out of, you could then explain everything that goes on in space. The poselectron would be the real God particle.

6. Creating the Higgs Field with Poselectrons

What is important to physicists is the existence of the "Higgs Field" which gives mass to particles. This field has to interact and slow down a particles speed, but yet it cannot continuously slow the particle down. If it continuously slowed down a particle, then the particle would eventually come to a stop. This would be like firing a bullet in molasses. The bullet would gradually slow down until it stopped. According to Newton's first law, a body in motion stays in motion – it does not slow down in the absence of friction or other forces. So this would be like a bullet which slows down in the Higgs molasses field, but then keeps going at the same speed. So the Higgs field really has to answer two questions.

1. What slows down particles in the Higgs field?
2. What keeps it going at the same speed upon entering the field?

To create a Higgs field out of poselectrons, we would start by simply filling all of space with poselectrons. This would be like the corn stalks in a field. Since space is completely filled with poselectrons, in order for any particle to move within this field, it must shove aside some poselectron particles. This is very much like trying to run through a field of corn stalks versus a blank field. But this action would soon slow you down. How would a particle maintain its speed upon entering the poselectron field?

7. Dipole particles create both mass and inertia

The poselectron is a dipole particle. This means that it is made out of a positive and negative charge, but the charges do not exactly cancel which leaves one end slightly positive and the other end slightly negative. This is shown in Fig. 1. where a positron and electron overlap each other.

Fig. 1. A Poselectron Dipole Particle

If you fill space with these poselectron particles, the negative and positive sides of the dipole will attract and will tend to align positive to negative and stick together like little bar magnets.

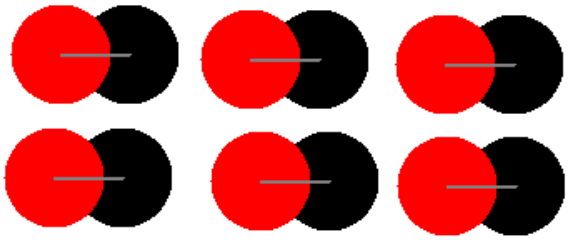

Fig. 2. An array of dipoles lined up with each other

If any particle tried to move it through this array of poselectrons, it would have to separate the poselectron dipoles from each other. It takes real "energy" or "Force" to cause this separation due to the attraction of the dipoles. So not only do the dipoles get in the way of movement (like the corn stalks), they are actually attracted to one another and you have to physically pull them apart using "force". This force is the 'F' in the F = ma equation for Newton's second law. This is why in order to "move" a particle in space, you must supply a "force" in order to overcome the force between the dipole poselectron particles. If there were no dipoles, it would not take any force to move a particle to a different location. The "mass" term in F=ma then becomes a measure of how much force it takes for a particle of matter to

pass through the dipoles. For example, a particle that was twice as wide as another particle might take twice the force to separate the dipoles and this registers as simply twice the mass in F=ma. So for an arbitrary particle of length 1. It might take a force = 1 and its mass registers as 1. Force 1 = Mass 1 x A (where 'A' is some constant acceleration). We then compare it against a particle of length 2. It takes twice as much force to separate the dipoles so mass =2 (force 2 = mass 2 times acceleration).

You can imagine the force between the dipoles as being like a rubber band between the dipoles. If you imagine moving a particle through the dipole field, it has to stretch that rubber band in order to fit between the dipoles.

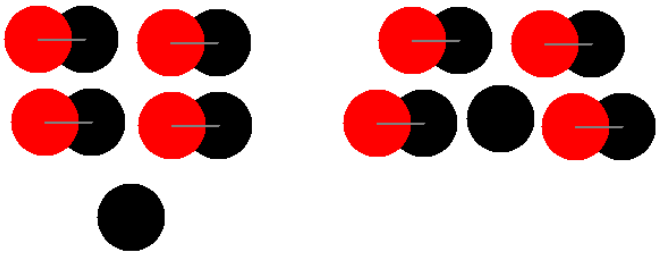

Fig. 3. A particle approaches and separates the first dipole pairs

As the particle continues its forward movement, the particle passes by the dipoles and they snap back together like a rubber band contracting. This gives the particle another boost of energy which then causes it to split the next set of dipoles.

Fig. 4. Dipoles snap back together and forces it through the next set of dipoles

A domino effect then keeps the particle moving forward through the dipole pairs using only the energy that it took to split a single dipole pair. This is how the Higgs field can slow a particle down by requiring it to take energy to move through the field and how it keeps the particle going through the field by constantly storing and releasing that energy through the attractive dipoles. This is the basis for explaining how inertia works. Once a particle is placed in motion, the energy it took to create that motion is stored and conserved in the poselectron sea and it keeps it in motion.

So with one simple field structure which consists of a field of poselectrons, we can explain both mass and inertia. This mechanism will give mass to any particle that takes up a finite amount of space. The Higgs particle being searched for at the LHC theoretically only gives masses to the W and Z particles and leaves the rest of the particles to fend for themselves.

8. Photons are not particles

One of the great mysteries that the Standard Model was trying to explain with the Higgs field is why the field would interact with matter particles (baryons) like electrons, protons and neutrons, but doesn't interact at all with photons (bosons). This is due to the ongoing confusion between light being a wave or a particle or a bit of both. Logically, light cannot be both. If we are to treat the poselectron aether as the picture of reality, then light must travel only as a wave. Light travels strictly as a wave through the poselectron aether – it is never seen as an individual particle travelling thorough the aether. Since light travels as only a wave, the speed of travel only depends upon the elastic properties of the poselectron aether. The idea that space is composed of positrons and electrons is not new. Calculations have been done with a similar EPOLA model which reveal that the speed that a wave should travel through this poselectron sea is what we recognize as the speed of light. [3] It could be said that the speed of light is similar to what the speed of sound is in the air. A Higgs field made out of poselectrons interacts only with matter which occupy a finite amount of space and requires a displacement of poselectrons within the field. Waves through the field do not require displacements of poselectrons and travel at the speed of light.

8. The Magnetic Field Explained

Another phenomenon which is not explained by the mainstream Higgs field is how the magnetic field works. There are practically no plausible explanations for how the magnetic field is constructed. However, if we take the Higgs field as being made out of poselectrons, this mystery can be solved. One characteristic of the magnetic field is a direction for the magnetic field lines. The poselectron particles align themselves along the positive/negative dipoles. However, it would not be likely that all of the dipoles would be aligned in the same direction. Smaller domains might be aligned, but overall, they would be pointing in random directions. If these domains could be aligned, then this would provide a "direction" or linear polarization for the magnetic field. An alignment of the poselectron sea could represent a "magnetic field". The orientation of the positive side of the dipoles form a directional vector.

It is also known that magnetic fields form in the presence of electrons in motion. If an electron were to move through the poselectron sea, what would it do to the alignment of the sea? As an electron passes by a dipole pair, the positive ends of the dipoles would tend to be pointed at the electron. As more electrons go in the same direction, it will "comb" the poselectron field to point in the same direction. A region of this combed and aligned poselectron sea will influence the surrounding sea and cause it to be aligned as well and will drop off with distance from the electrons which are causing the alignment. Once the electrons stop combing the field, random thermal energy will return the poselectron sea back to its random orientation.

The Higgs poselectron sea can therefore provide a medium which can represent a direction for the magnetic field and it explains why moving electrons are needed to create a magnetic field. This establishes the causal relationship between moving charges and the magnetic field.

9. How electrons deflect through a magnetic field

Now that we have established what a magnetic field consists of, we can explain why electrons are deflected in such a field. If an electron approaches at a 90 degree angle to the magnetic field lines which are aligned dipoles, it will see a negative charge on one side and a positive charge on the other as shown in Fig 5.

The electron will be attracted to the positive side and if all of the poselectrons are aligned in a similar manner, the electron will continue to be pulled to the positive side and the amount of force that gets applied will directly depend on the speed of the electron, since it gets a bump of force for every set of dipoles it goes by. The faster it goes, the more bumps it gets.

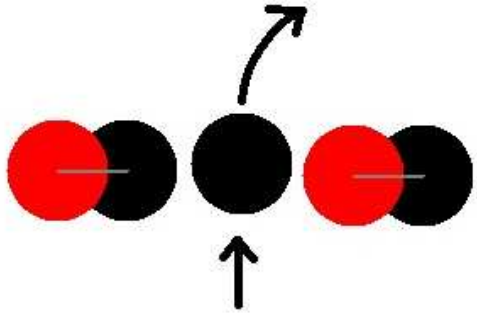

Fig. 5. Electron deflected towards the positive dipole

If an electron is moving parallel to the magnetic field, the electron will be deflected if the magnetic field is diverging and getting weaker. Almost all magnetic fields are diverging in nature. The divergence creates a force because the stronger field will push the electron because the weaker field doesn't have enough strength to keep the electron from going parallel. Fig 6 shows an electron moving in a parallel path to the magnetic field lines. The larger red and black dipole indicate a higher field strength. Depending on which direction the electron is headed, it is deflected either up or down. For an electron heading right, the electron sees a larger negative charge above it than below, so it is repelled downward in this figure.

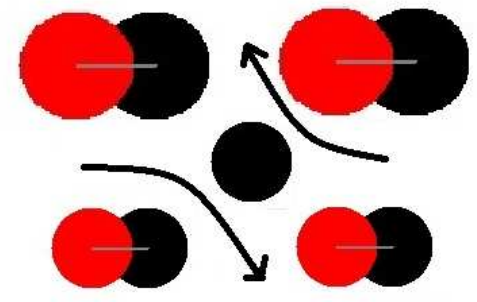

Fig. 6. Electron deflected up or down through diverging magnetic field.

This model of the magnetic force is very different from conventional electromagnetic theory, however it can be used to explain how wires can repel or attract depending on the direction of current and can do some things which conventional theory cannot explain such explain unipolar induction and solving the Faraday paradox.[4]

Conclusions:

The Higgs particle has gotten quite a bit of popular press and billions have been spent trying to find it in our finest particle accelerators. However, his paper has put forth the possibility that we are looking in the wrong place and for the wrong thing. Instead of an exotic supermassive particle, we should be looking for a small and undiscovered neutral particle called the poselectron. This particle can be found experimentally and evidence of its existence probably already exists in existing data and experiments. When it is found, it will truly be the "God" particle that will show the simplicity and grand design that God designed the universe with. This is a universe which starts off with only positrons and electrons which come together to form a dipole particle which fills and defines all of space. All of the properties of space come from these dipoles. These dipoles form what the physicists are really looking for which is the "Higgs Field". If the physicists found some particle at the LHC, they may have found some random particle or more likely just a series of reactions that look like a particle, but it won't have anything to do with the Higgs Field which has got to act to slow down baryon particles. The poselectron Higgs Field stops them cold since they actually cannot move at all without the input of some energy force to push them through the attractive dipoles which defines the property of mass. Once in motion, they stay in motion by conserving the energy in the poselectron bonds. It is an elegant theory which binds together mass and inertia under the same physical picture of dipoles. These dipoles can then be used to describe the magnetic field and how electrons are deflected through these field lines. This model of space has a simplistic beauty which explains three concepts (mass, inertia and magnetism) which we currently do not have a generally accepted explanation of.

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