

Re: The simplest of physics!

# Re: The simplest of physics!

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- *From:* "Gerald L. O'Barr" <[globarr@xxxxxxxx](mailto:globarr@xxxxxxxx)>
  - *Date:* 13 Mar 2006 19:21:21 -0800
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In <1142279027.371672.321020@xx>  
PD <[TheDraperFam...@xxxxxxxx](mailto:TheDraperFam...@xxxxxxxx)> wrote:

Gerald L. O'Barr <[globarr...@xxxxxxxx](mailto:globarr...@xxxxxxxx)> wrote:

The simplest of physics!

...

... neutrons can be considered  
to be just a proton and an electron.

PD <[TheDraperFam...@xxxxxxxx](mailto:TheDraperFam...@xxxxxxxx)> wrote:

No, we can't. We've done deep-inelastic scattering  
experiments on neutrons. They are not proton-  
electron composites.

O'Barr comments:

They seem to be a composite in terms of their net  
charge. And in several other ways, one of which was  
previously mentioned (see below.)

But as you say, it seems as if their matter  
becomes co-mingled in some mysterious way so that  
there appears to be only one particle once they are  
combined.

PD <[TheDraperFam...@xxxxxxxx](mailto:TheDraperFam...@xxxxxxxx)> wrote:

Actually, removing hydrogen from consideration for  
a moment, there are more neutrons than there are  
protons.

O'Barr comments:

Yes, but the removal of hydrogen is the removal of  
the most plentiful amount of matter that exists.

Look, if neutrons were just a proton and an  
electron, then every neutron is a proton. Did you

Re: The simplest of physics!

get lost in any of this?

O'Barr wrote:

. . . We are not sure about this, but this seems to be the way they can break up, when they do. So what do electrons and protons do? Since this is about all that our world consists of, then if we really knew what they were, we would know most of what there was to know. What we say they do (electrons and protons), and what the at theory says, are not exactly the same. So who is right? Let us think a little about a few things.

The at theory says that all free electrons repel all other free electrons. And of course, so does our modern science. This is why electrons are found at the farthest distances apart in an atom. This is why electrons are found to travel on the outside of a wire, not in its center. So we easily see that this seems reasonable, to assume that electrons repel each other.

And the at theory says that protons attract electrons. And so does our modern science. This is why a stable atom can have protons in the center (its nucleus), which can act to hold electrons in orbit or at least within fixed areas around the nucleus. So we find some support between the at theory and what is taught. And these specific facts are the most important facts that are directly seen and required.

But there are some differences between the at theory and modern thinking. Let us consider a few.

In the at theory, the electron does not just repel other electrons! In the at theory, a free electron will repel both other free electrons and all free protons. This is insane, but that is what the at theory requires. And in the at theory, the proton not only attracts a free electron, but a free proton will attract all other free protons. Now of course some will say that there is direct evidence that these things are not true. However, let me also say that there is also direct evidence that these things are true, but you just call these evidences to be examples of anti-matter being present. So of course I cannot win.

Re: The simplest of physics!

Why does the nucleus seem to have a limited to its size? Well, modern science could say that this limit is due to the fact that protons repel each other, just like electrons repel each other. But if protons repel each other, then they could be often found in outer orbits, and electrons could be in the nucleus, holding them in orbit.

PD <TheDraperFam...@xxxxxxxxxx> wrote:

This, notice, is in direction contradiction with Rutherford's experiments a hundred years ago.

O'Barr comments:

Certainly, we all know the facts. We do find protons in the nucleus. The point being made was to answer why they are the ones in the nucleus, and not electrons.

O'Barr wrote:

But the at theory requires protons to not only attract electrons, but they also attract each other. And thus, the fact that it is protons, and only protons, that make up the tightest groupings (the center, the nucleus) is a physical requirement.

PD <TheDraperFam...@xxxxxxxxxx> wrote:

The theory says protons participate in \*two\* interactions, one fundamentally stronger than the other. It also says that electrons do not participate in one of those interactions.

O'Barr comments:

Yes, but with the at theory, there would not be a need for a new force, a force stronger than the other, etc. By the way, when was the last time you saw a single quark? Or a gluon?

O'Barr wrote:

Now can exceptions occur? Yes! Not all situations consist of free particles. And bounded particles can react differently in some situations.

Re: The simplest of physics!

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Two free protons, because they really do attract each other, can be in orbit around each other for a short time. But in the at theory, there are not too many stable relationships between objects. In the at theory, to have stability, one has to match several factors. These factors include the following. There must be a match between the forces between these objects with all the inertial forces that might be present. There must also be a balance between drag and translational forces. These balances must include a balance for each individual particle, and the group of particles as a whole. These drag forces and translation functions are what allow only certain types of particle formations to exist, to include electron shells. And also even the individual spins of what we call single particles.

As I look at all these parameters, I see that the limit in size of a nucleus is that as protons become numerous, more and more electrons can not be prevented from being attracted to enter into that nucleus. As they enter, it is interpreted to be the forming of neutrons. But the gist is, the limit on the size of a nucleus is due to these numbers of electrons (or in neutrons, in terms of our modern science) that is present in that nucleus. These electrons cause a repelling of all other particles. And as they increase in numbers, they will begin to dominate local regions after local regions until the tendency to lose mass is larger than the tendency to gain.

Therefore, a real limit in size is produced, and it is the number of electrons in the nucleus that causes these ultimate limits to the size of the nucleus. In terms of modern science, it is the limit in number of neutrons that affect the upper size stability of a nucleus, because a neutron includes an electron.

Now of course I do not have access to a large enough computer to do any of this with any specific rigor. But I can play games, in terms of simple, one-dimensional physics, and some of these insights can be gained. Whatever I have or have not done, I do believe that it would be interesting to see some serious reconsiderations be shown about our

Re: The simplest of physics!

basic concepts of even protons and electrons. These concepts of positrons and anti-protons might all be because we do not understand the simplest things about these particles. Has anyone ever consider such a simple solution to all these things? They stare us in the face. But no one seems able to break the mode in which we were formed. I find all this to be so interesting. But it needs to be considered. The at theory is important. It will one day be the base to our physics.

Thanks for reading.  
Gerald.

P.S Please do not misunderstand any of this. I am not suggesting that there is anything we have to change. Success is hard to argue with. But I am trying to say that there are yet other interpretations that have not yet been considered. Why have I not heard about other possible interpretations?

PD <TheDraperFam...@xxxxxxxxxx> wrote:

Possibly because you haven't read enough, to find out what has been already tried and tested (and ruled out) with experiment.

O'Barr comments:

You are being much too kind. I am glad you didn't say that I just cannot understand these things. But until we find a real quark, and obtain a real physical understanding of QM, I do not hold out much for QM ways of solving problems, which is to propose a new particle, with even more problems, to explain the characteristic of another particle, all when just a change in the other particle could be considered. The main reason why we have a strong force is to explain the reason why a nucleus of protons can exist, and yet no one has said that this problem would go away if protons attracted each other, rather than repelled each other.

O'Barr wrote:

Of course, the at theory itself has more than one interpretation. Being a physical theory, the base of its interpretation cannot be changed. But the

Re: The simplest of physics!

Re: The simplest of physics!

point at which it begins to apply to our physics is open to interpretation. And thus, this point will decide how much of our present physics will have to change, that is all that is being decided. The at theory allows for an entire world to be established, with micro micro atoms, etc, long before it combines into sizes of particles that we see around us.

Thanks for reading.  
Gerald.