Particle Physics and Energy Fields.

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Abstract:

In the first two papers on energy fields, we examined the basic principles for the interactions between energy fields, and analyzed the nature of potential, orbital and rotational energy fields. Here we apply those basic principles to particle physics and make further proposals. The results may provide an alternative explanation for the nature of particles, an alternative explanation for the behavior of particles in colliders, and an alternative explanation for the nature of matter and anti-matter.

1. Introduction:

Simple physics experiments have been conducted over the centuries and elaborate theories have been proposed to explain the observations (e.g. magnetic and electro-magnetic theories). These theories have become dominant and, in the modern era, they generally go unchallenged. This paper re-examines some fundamental aspects of physical behavior and proposes alternative explanations for the interactions in nature.

For this paper, we have developed proposals for more complex interactions between energy fields. We build on the findings of two earlier papers **[1][2]** where energy fields are seen to interact with each other, and to turn or move, if free to do so. Energy fields are seen to move to positions of lower net field strength, which are also the configurations for lower total energy.

In this paper, we have analyzed the interactions between rotational energy fields and an applied, linear, energy field. In this scenario, the effect of the potential energy field is assumed to be zero, and the effect of the orbital energy field is assumed to be small.

2. Particles passing through the applied energy field of a Collider:

We have seen that particles with a rotational energy field will turn when moving through an applied energy field (such as the "magnetic" field within a particle collider). Here the energy field vectors are subtractive – see Figure 1:

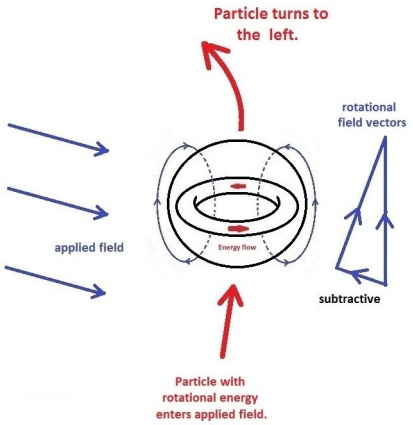

Figure 1: Particle with subtractive rotational energy field vector.

Here the energy field vectors are additive and the particle turns the other way – see Figure 2:

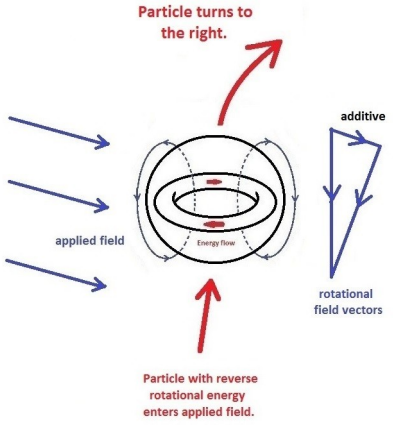

Figure 2: Particle with additive rotational energy field vector.

And the diagram for both directions – see Figure 3:

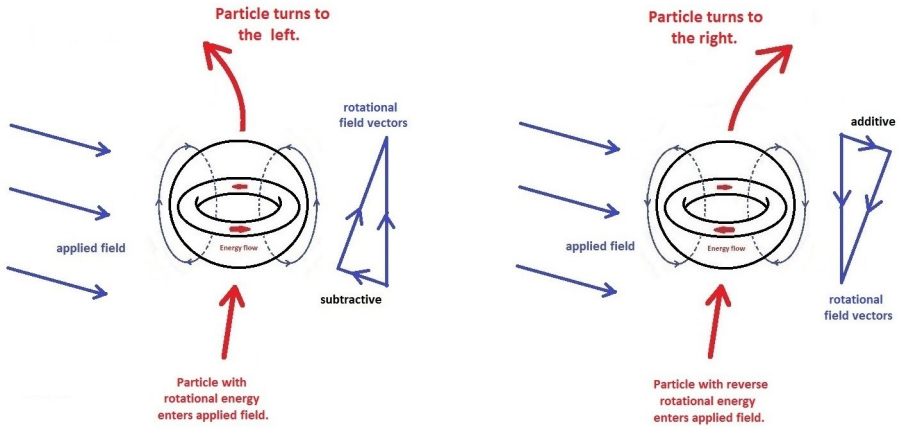

Figure 3: Particles with opposite rotational energy moving through an applied energy field.

In a particle collider, particles pass through an applied (*magnetic*) energy field, and turn in various ways. Conventional theory is that particles and anti-particles (matter and anti-matter) will turn in different directions, and that particles with different "charge" will also turn in different directions - see Figure 4:

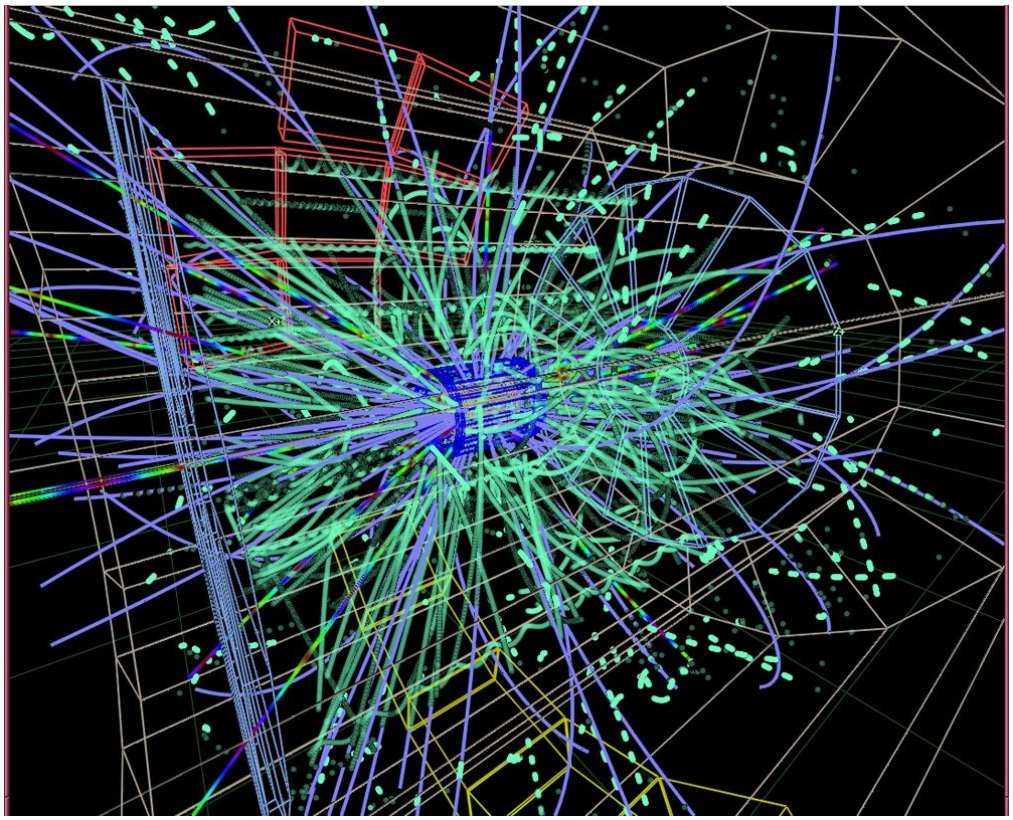

Figure 4: Particle paths after collision in a collider.

Here we can see that the direction of turn is dependent on the rotational energy field vector of the particle. For particles moving through an applied energy field, a particle having a rotational energy field with a subtractive vector will turn in a different direction to a particle having a rotational energy field with an additive vector.

In any given environment, there is no magical reason why rotational energy field vectors for particles should be exactly aligned, or exactly counter-aligned. In all probability, the energy field vectors will be in random directions and, with the addition of the applied field, the net energy field vectors will be in different directions and at different strengths. Some particles will, therefore, turn more than others.

From conventional gyroscopic theory, when particles pass through an externally applied energy field, particles with rotational energy can be expected to "precess" gyroscopically, in the usual way.

Note: The moving particles will also have an orbital energy field around them which will combine, by vector addition, to give a total energy field, dependent on relative energy field strengths.

4. Electron - positron interactions:

We have seen from a previous paper **[2]**, that two particles with opposite rotational energy fields will tend to move together under the influence of both the potential energy field and the combined rotational energy field.

It is proposed that if an electron and a "positron" collide, they will combine or interact, resulting in the emission of two 511 keV photons - see Figure 5:

It is further proposed that electrons and positrons created in a particle collider are essentially the same particle, except that they have opposite rotational energy field vectors. Hence total rotational energy is conserved when an electron-positron pair is created.

It is proposed that electrons and positrons are not "matter" and "antimatter" since the product of their "mutual annihilation" is not zero. It is proposed that protons and anti-protons are essentially the same particle, except they have opposite rotational energy field vectors.

Similarly, it is proposed that protons and anti-protons are not matter and anti-matter, since the product of their "mutual annihilation" is not zero. It is proposed that protons and anti-protons are essentially the same particle, except they have opposite rotational energy field vectors.

Note: In old physics theory, this is called "matter-antimatter annihilation" but, as energy is conserved and transformed into two 511 keV photons, there is no "matter annihilation", only mass/energy conversion. It is erroneous to call this a "matter-antimatter annihilation" as the product is not zero.

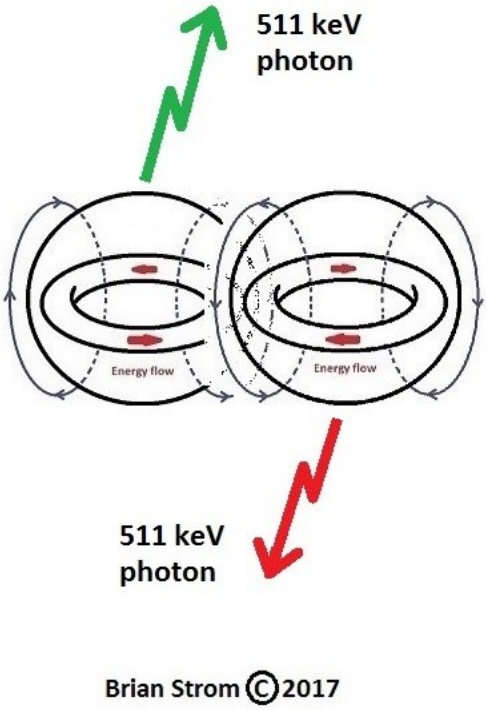

Figure 5: Electron and positron interaction - conversion to photons.

5. Summary and Conclusions

In this paper, we have analyzed the behavior of particles in an applied energy field, and the interactions between two particles with opposite rotational energy fields.

The strengths of energy fields appear to vary by orders of magnitude, yet the sizes and distances between bodies can also vary by orders of magnitude. Whilst one or other energy field may appear to dominate, it does not mean that other energy fields are not present, at lower strengths.

Within the atom, the orbital and rotational energy fields may be strongest and temperature dependent, whilst the potential (gravitational) energy field may be insignificant.

These results may provide an alternative explanation for the “conventional” forces at the sub-atomic level.

Further information available on Blog: https://edisconstant.wordpress.com/

Experiments are underway in London (UK) and Cambridge (MA) and Birmingham (UK) to quantify the effects of these interactions between Energy Fields..

6. References:

[1] Brian STROM. “AI Physics – Energy Fields - Part 1.” **viXra: 1902.0421** February 2019. This paper includes a summary of the simple interactions between energy fields.

[2] Brian STROM. “AI Physics – Energy Fields - Part 2.” **viXra: 1903.0495** March 2019. This paper includes a summary of the interactions between Potential energy fields, Orbital energy fields and Rotational energy fields.

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