

Energy Pairs Theory

Author: Moshe Segal

moshe_segal@yahoo.com

Abstract

In a separate article named "Consolidating Waves create Dark Energy" that can be found at <http://vixra.org/abs/1910.0496> a scenario of two one dimensional electromagnetic traveling waves, which collide and then consolidate and continue to travel in the same direction, is described. In that article it was shown that in this scenario energy is lost such that it appears to violate the Energy Conservation Principle.

In this article, the Energy Pairs theory is presented which explains this energy loss. And, the above described scenario is presented as a proof of this Energy Pairs Theory.

The article also describes various possible combinations of Energy Pairs.

Introduction

In a separate article named "Consolidating Waves create Dark Energy" that can be found at <http://viXra.org/abs/1910.0496> a scenario of two one dimensional electromagnetic traveling waves, which collide and then consolidate and continue to travel in the same direction is described. In that article it was shown that in this scenario energy is lost such that it appears to violate the Energy Conservation Principle.

In this article the Energy Pairs theory is presented which explains this energy loss.

The Energy Pairs Theory claims that certain energies, for example, electric fields energies or magnetic fields energies, which are dependent on the existence of a force field (electric or magnetic) in order to exist, can annihilate each other, in certain situations, an annihilation that seems to violate the Energy Conservation Principle. And thus, the article assigns such energies to pairs of Energy Pairs.

And, the above described scenario is presented as a proof of this Energy Pairs Theory.

The article also argues that this mutual annihilation of energies belonging to Energy Pairs can be viewed not as mutual annihilation but as mutual disabling, assuming that the energies **exist** as Energy Pairs and their mutual disabling is only seen as annihilation.

In several articles, the Energy Pairs is used to explain other energy conservation issues related to electric and magnetic fields, and also to explain the issue of the charge disappearance in electron positron collisions.

The article also points out that the assumption that certain energies can cancel each other is not a new concept in physics. In this context, the article mentions Ref 4 that claims that the energy embedded in the gravitational fields, in the **whole universe**, is now considered to be a negative energy, such that it offsets completely the energies embedded in the masses, in the **whole universe**. Thus, in analogy to this claim the article describes various possible combinations of Energy Pairs.

The Energy Pairs Theory

From the above mentioned scenario, which describes two one dimensional electromagnetic traveling waves, which collide and then consolidate and continue to travel in the same direction, in which, the Energy Conservation Principle seem to be violated, the article derives the Energy Pairs Theory.

The Energy Pairs Theory states, that certain energies, for example, electric fields energies or magnetic fields energies, which are dependent on the existence of a force field (electric or magnetic) in order to exist, can annihilate each other, in certain situations, an annihilation that seems to violate the Energy Conservation Principle. And thus, the article assigns such energies to pairs of Energy Pairs.

In light of the above described scenario, this article assigns the energy embedded in electric fields generated by positive charges, and energy embedded in electric fields generated by negative charges to one set of energy pairs. And, this article also assigns the energy embedded in magnetic fields generated by moving positive charges, and energy embedded in magnetic fields generated by moving negative charges to another set of energy pairs.

And, the above described scenario is presented as a proof of this Energy Pairs Theory.

The mutual annihilation of energies belonging to Energy Pairs can be also viewed not as mutual annihilation but as mutual disabling, assuming that the energies **exist** as Energy Pairs and their mutual disabling is only seen as annihilation.

An analogy to the above might be the discription of what happens to the energy in a rope in a rope pulling game. When two people pull a rope, each in a direction opposite to the other, if their pulling force is exactly equal, the rope does not move. However, this does not mean that the pulling energies that are exerted on the rope really annihilate each other or disappear. These energies are accumulated or amassed in the rope.

The same should occur when two electric fields forces (or magnetic fields forces) of exactly the same intensity and equal polarity annihilate each other. The energies of these electric (or

magnetic) fields are not annihilated or disappear, they are accumulated or amassed in the location in space where they reside, but they cannot express themselves. They only disable each other.

Thus, if the energies do exist, an extrapolation of this assumption can state, that Energy Pairs can evolve together again, from, what is viewed as nothing, or complete emptiness.

In several articles, the Energy Pairs is used to explain other energy conservation issues related to electric and magnetic fields, and also to explain the issue of the charge disappearance in electron positron collisions.

The assumption that certain energies can cancel each other is not a new concept in physics. According to Ref 4, the energy embedded in the gravitational fields, in the **whole universe**, is now considered to be a negative energy, such that it offsets completely the energies embedded in the masses, in the **whole universe**, such that the net energy of the universe which relates to masses and gravitational fields is zero.

This might fit with the assumption, which is presented in another article, that charge is energy. Then, the energies embedded in charges belong to one set of Energy Pairs, and, if the charge conservation principle holds, the net energy embedded in charges, in the **whole universe**, is again zero.

On the other hand, Ref 3 defined an equation for the energy density in the gravitational field. If we adopt the idea presented in Ref 4 that this energy density is a negative energy, then, we should conclude also that the energy embedded in the masses in the **whole universe** and the energy embedded in the gravitational field in the **whole universe** belong also to an Energy Pair.

The concept of an Energy Pair that applies only to the set of **all** the masses in the universe does not apply to a single mass and its gravitational field.

Because, the energy embedded in the mass is proportional to the mass magnitude, and the energy embedded in the gravitational field is proportional to the square of the mass magnitude.

Only when we consider **all** the masses in the universe and assume that the masses are spread, on the average, uniformly in the universe, we can derive the conclusion that the energy embedded in all the masses in the **whole universe** might cancel the energy embedded in the gravitational field of the **whole universe**.

Analogous to the above, if we adopt the assumption that the charge is energy, then, the energy embedded in the positive charges in the **whole universe** and the Energy in the electric fields and the magnetic fields generated by positive charges in the **whole universe** should also belong to an Energy Pair.

And, the energy embedded in the negative charges in the **whole universe** and the energy in the electric fields and the magnetic fields generated by negative charges in the **whole universe** should also belong to an Energy Pair.

The above described Energy Pairs **must** contain elements from the **whole universe**. On the other hand, if charge is considered energy, then, the energy embedded in any positive charge and the energy embedded in any negative charge, belong to an Energy Pair.

Also, energy belonging to any electric field generated by positive charges, and energy belonging to any electric field generated by negative charges, belong to an Energy Pair.

Also, energy belonging to any magnetic field generated by positive charges, and energy belonging to any magnetic field generated by negative charges, belong to an Energy Pair.

Also, as Ref 5 implies, modern physics is evaluating the concept of negative mass. Ref 6 even informs that it may be that physicists created "negative mass". If the

notion of negative mass is found to be a viable concept, it further increases the similarities between mass and charge, as related to energy. Then, since mass is already recognized as a special form of energy, this increases the possibility that charge should also be recognized as a special form of energy.

Summary, Results and Conclusions

This article relates to a scenario, of a collision, followed by a consolidation, between two one dimensional electromagnetic waves, which continue to travel together in the same direction, after that consolidation, in which there is energy loss that seems to violate the Energy Conservation Principle.

In light of the above, this article presents the Energy Pairs Theory which explains this energy loss. And, the above scenario is presented as a proof of this Energy Pairs Theory.

The Energy Pairs Theory is also used to explain other energy conservation issues and the mystery of the charge disappearance in electron positron collisions.

The article also argues that this mutual annihilation of energies belonging to Energy Pairs can be viewed not as mutual annihilation but as mutual disabling, assuming that the energies **exist** as Energy Pairs and their mutual disabling is only seen as annihilation.

The article also elaborates on various possible Energy Pairs combinations.

In several articles, such as: "Electric Charges as Energy Pairs" that can be found at <http://viXra.org/abs/1909.0098> and "Energy Pairs might turn to Dark Energy" that can be found at <http://viXra.org/abs/1909.0149> some of the issues presented in this article is also presented, with more details.

References

1. Electric Charges as Energy Pairs
<http://viXra.org/abs/1909.0098>
2. Energy Pairs might turn to Dark Energy
<http://viXra.org/abs/1909.0149>
3. A Possible Scalar Term Describing Energy Density in the Gravitational Field
https://www.grc.nasa.gov/WWW/k-12/Numbers/Math/Mathematical_Thinking/possible_scalar_terms.htm
4. What's the Total Energy In the Universe?
<https://www.livescience.com/33129-total-energy-universe-zero.html>
5. Negative Mass
https://en.wikipedia.org/wiki/Negative_mass
6. Physicists create 'negative mass'
<https://phys.org/news/2017-04-physicists-negative-mass.html>

This article was written by: Moshe Segal, At the Date of: 10th October, 2019

Moshe Segal's address is: Ravutzky st. #78 Ra'anana ISRAEL 4322141

Email addresses:

moshe_segal@yahoo.com

moshe_segal@yahoo.com

leasegalster@gmail.com

mirch0@walla.com