

GIF - annihilation and creation of a pair of elementary particles.

Abstract. Description of the processes of annihilation and pair production from the position of the theory of the Elastic Universe.

GIF annihilation: <http://i.yapx.ru/BDq5J.gif>

<http://universe100.narod.ru/u270/b15.gif>

<http://universe100.narod.ru/u210/image017.gif>

GIF- pair production: <http://i.yapx.ru/BDq6G.gif>

<http://universe100.narod.ru/u270/b16.gif>

Alexander I.Dubinyansky and Pavel Churlyayev.

According to the theory of the Elastic Universe, material particles are described by a localized solution of the wave equation. In this case, the law of "winding" or "stratification" of a vortex wave on itself acts.

The electron is also formed by a vortex wave. The mathematical solution is a spherical layer that decreases with distance from the axis of symmetry in terms of the amplitude of the oscillations. All these layers rotate about the axis of symmetry Z . The adjacent layers rotate in opposite directions. Because of the gradual decrease in the amplitude of the vortex wave, a total nonzero rotation moment is created for the entire electron, which manifests itself as a spin. And the electron itself can be considered as a wave "top". In which the wave is wound on itself. This top can not be stopped, since it is impossible to stop the electromagnetic wave.

Antimatter does not exist at all. This is the misconception of scientists. What modern science considers a positron, in fact, there is the same ordinary electron, only oriented "forehead" to another electron. This is a very rare, unlikely condition. When approaching such two objects, the "forehead" direction is annihilated. This process of annihilation consists in the fact that the wound waves of each electron rotate in different directions. At the same time, they interact, "interfere" with each other to rotate, because of this they are unwound and turn into photons.

The essence of annihilation.

- Annihilation is a process of merging a particle + the same particle, oriented towards, or excited. When all the turns of localized wave formations straighten out at once, they turn into directly flying photons. Naturally, in different directions.

The essence of the reverse process.

The existence of annihilation signifies the possibility of an inverse process, the fusion of two photons in a collision, and the formation of a pair of two identical elementary particles in different quantum states. In further collisions with surrounding particles, the particles obtained lose their orientation. It can be argued that globally in the universe there is an equilibrium between the number of photons and the number of particles. In the processes of annihilation and pair formation, an equilibrium is achieved between the amounts of photons and elementary particles.

Why is antimatter in the universe so small.

The reason is simple. Antimatter is a rare (quantum) state of ordinary matter. Rarely, which electron, flown from space, is successfully oriented "forehead" to an electron in a cloud chamber. Therefore, the percentage of "positrons" in cosmic radiation is very small.

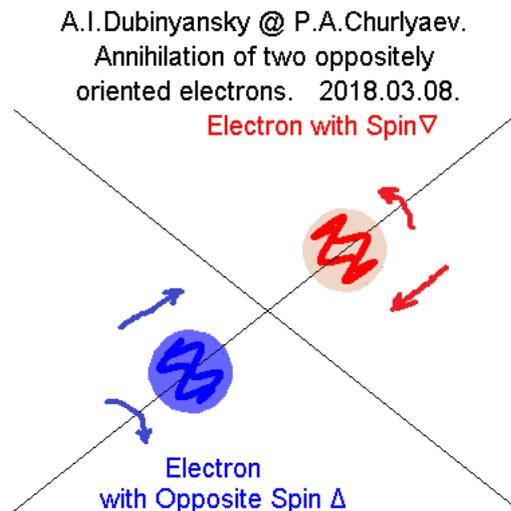
Since the animation is impossible on pdf files, we give links to the gif animation of

annihilation processes and creation of electron pairs.

GIF annihilation: <http://i.yapx.ru/BDq5J.gif>

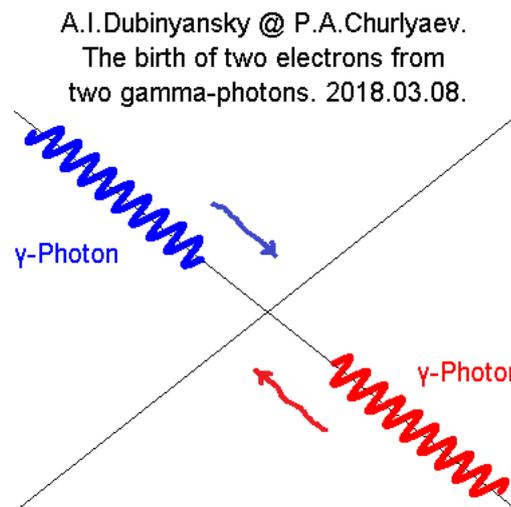
<http://universe100.narod.ru/u270/b15.gif>

<http://universe100.narod.ru/u210/image017.gif>



GIF- pair production: <http://i.yapx.ru/BDq6G.gif>

<http://universe100.narod.ru/u270/b16.gif>



Physically, the process of annihilation of two oppositely twirled electrons is very simple. Swirling waves in particles in the interaction simply unwind, straighten and turn into two departing photons.

Russian: <http://universe100.narod.ru/>

English: <http://universe100.narod.ru/100-Oglavlenie.html>

<http://universe100.narod.ru/210-Photon.html>

dubinyansky@mail.ru