the general science journal

What is the Electron?

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Robert Milliken, who measured the electron's charge, in his Nobel speech (1923) said that he knew nothing about the “last essence of the electron”. In that case there is one old joke.

One professor asked a student: “ What is an electron?” “ Ah, damn it! I have forgotten. And in fact even this morning I knew it. ”- the student answered. “ You should remember it without fail, - professor said – because you were the only person who knew, what electron was, and now you have suddenly forgotten!” This old joke does not grow old. And today the question: “What is the electron?” remains without an answer. How the electron looks nobody knows.

Maxwell's theory / SRT doesn't exist without the electron. The electron is the main and single hero in Maxwell's theory and SRT.

A. What does the electron do in Maxwell's theory?

Maxwell's equations have no relation to the movement of the electron. They describe the distribution of electromagnetic waves but not the movement of a particle such as an electron. In Maxwell's theory, the electron is considered local, as though the particle is "at rest".

This means that the particle does not move rectilinearly, but rotates around the diameter (has the form of a sphere-geoid). The electron rotates around its diameter with a speed greater than c=1 - Tachion theory.

Therefore:

1.The electron has an electrical charge $e = \pm v(hca)^{1/2}$
2. This electron /charge has energy $E = hw$
3. The rotation of the electron creates electrical waves

But everybody knows, that an electron is not a solid sphere. Everybody knows, that its form can be changed and these changes are described by SRT.

B. What does the electron do in SRT ? At the beginning of the last century many scientists (Einstein, Lorents, Fitzgerald, Poincare, Abraham) were interested in the question: "What will take place, if the electron (Maxwell's), creating an electrical field, begins to move - rectilinearly?" All of them came to the conclusion that there would be radical changes with the electron. These changes are described by the Lorentz transformations. That is, when the originally rotating electron (sphere) begins to move rectilinearly, during movement it gradually will change its geometrical form.

But nobody understands the borders of the electron,s changes. So, what are the borders of this change? Quantum theory gives an answer to this question. It says that at the interaction of the electron with the vacuum, his energy and mass become infinite. Physicists do not understand what to do with infinite sizes, and therefore they have invented "a method of renormalization", a method "to sweep the dust under the carpet" - Feynman. This method is abstract.

The situation can be understood in another way. Electrons, having the geometrical form of a sphere, lose their volume and turned into an indefinitely flat circle. In this way infinite sizes of the electron occur. But in physics we know only one particle which has the form of a flat circle. It is a quantum of light, which flies rectilinearly with the speed c= 1. Therefore, the electron can turns only into a quantum of light. That is why, the electron and /or a quantum of light is the same particle in different states.

It is proven, when electron leaves atom its electric field changes. The spherical field will be transformed to an ellipse field. And in process of its removal, the elliptical field is more and more extended. And in a limit (at the moment of breaking-off) the electron has the form of a string. - String theory. Therefore, electron can have the different geometrical forms: circle, sphere and string.

In the books it is written that electrons interact among themselves with the help of a quantum of light. In the books it is written that an electron in an atom passing from one orbit to another radiates a quantum of light. It should be understood as follows. The electron has a quantum of light in a “pocket” or under a "shirt" which it gives freedom from time to time. Why is it necessary for the electron to hide a quantum of light?

How does the Palace of our Physics Look? Its base consists of:

1. Abstract separate absolute space of Newton and abstract separate absolute time of Newton.
2. Abstract ideal gas,
3. Abstract absolutely black body,
4. Abstract negativ 4 - dimensional space of SRT.

There are:

1. Abstract ideal particles,
2. Abstract virtual particles.

Which:

1. Have abstract inertial movement,
2. Can make abstract virtual transitions.

They create:

1. Abstract 11 - dimensional space.
2. Abstract 27 - dimensional space. 3. etc.

We live in 3 - dimensional space. We are real and logically thinking people and have created these abstractions. So, how to understand the abstract palace of our physics?

Epoches and Reference Frames.

1 Ptolemy considered that a reference frame connected with the Earth is absolute.
2. Copernicus proved that a reference frame connected with the Sun is absolute.
3. Then they began to consider that a reference frame connected with the far stars is absolute.
4. Now it is consider, that a reference frame connected with relic isotropic radiation T = 2,7K is absolute.
5. But T = 2,7K is not a constant factor. This relic isotropic radiation continues to extend and decrease and, hence, approximately over a period of 20 billions years will reach T=0K.

From the Relativity theory we know, that “time” is a relative concept. Therefore, dear reader, while you read these lines, the time compressed up to zero t=0 and T=0K has already come.

This part is only a joke. But maybe it is not joke.
According to the "Big Bang", 20 billions years ago the time compressed up to zero. !? !? !? !?

"Once I dreamed I was a butterfly, and now I no longer know whether I am Chuang-tzu, who dreamed I was a butterfly, or whether I am a butterfly dreaming that I am Chuang-tzu."