A Fluid Flow Approach to Interpret the Standard Atomic Model and the Electromagnetic Manifestations

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Scientist's community agrees to say that matter is constituted of elementary particles present in vacuum. Although this model remain indisputable for an experimental point of view, it has to face tow theoretic problems:

- The first one is to unify this model with the other fundamental concept of physics. This model can't explain gravitation or electromagnetic manifestations.
- The second one is to explain the origin of these particles (to explain theoretically their creation, their annihilation...).

Concerning the first problem, the relativity can determine the value of the gravitational field. However the mystery about the origin of this field remain an explicated. Concerning the second problem the string theory tries to gives some answer. However the origin of theses strings remain also a mystery.

Hence we are forced to admit that we don't dispose of a unique theory explaining in the same time the fundamental physical concepts.

We think that the origin of the problem is whether a wrong vision of the realities or the absence of a precise definition of an essential notion. We deal with particles in vacuum without defining the notion of vacuum or interstellar space.

In this paper we will see that if we define rightly what we suppose to be the vacuum and we express its characteristics as a new continuous medium, it will be possible to establish a new theory able to explain together the fundamental physical phenomena.

In this paper we consider our interstellar space "the supposed vacuum" as a continuous, viscous and expandable medium which the local concentration can be varied. Hence we consider our interstellar space as sort of modeling clay. This modeling clay can be dilated or compressed or sudden local torsion under unique type of pressure force. The principal advantage of this approach is to use the actual research on fluid flow. Hence we can envisage explaining:

1. Elementary particle creation in the medium by a local variation of the concentration.
2. A systematic attraction (gravitation) thinks to the continuity of the medium and the local variation of the concentration. So each presence of particle applies a pressure force on the other present particles.

3. An action sudden by a particles due to the displacement of another particle. Hence the viscosity of the medium can define a magnetic field.

4. Although the electric charge can be defined if we identify a particular type of propagation of the pressure force.

For these reasons, this new approach seems able to consider all the law of physics as different studies approach of a unique system. This approach can't be neglected and we have to estimate its potentialities. In this paper we present this new approach we detail how the fundamental physical concepts can be interpreted coherently if we adopt this new approach.