

The Game of Inverse Universe

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Abstract

This document postulates an inverse view of matter, the Game model, where the whole universe is assumed to be a continuous medium and where the so called objects (physical) represent empty space or vacuum in this view. This Game model might be used to justify various physical phenomena. For instance gravity between two entities might be justified by asymmetry around each, pushing them towards each other to balance the total force in the medium due to the continuity of the medium.

Introduction: Unification

For years after the foundation of modern physics, there are several fundamental questions and unexplained observations: What is the true comprehensive relation between the matter and energy, mass and velocity. What is the fundamental structure of the mass itself; the routes of the Heisenberg postulate, the dual wave and particle behavior for quantum entities (e.g. photons), the foundation of gravity, the momentum of light and its deflection in so called vacuum, and definition of time-space and events for velocities beyond the so called speed of light, which all do not have a basic unified comprehensive approach for interpretation, besides the physical field theories (QFT, ...). This might be due to the way that the man understands the universe through its relative illusive common senses and the first impressions based on that.

The Game Model

In this document the universe is modeled to be the inverse of what we commonly think, just as we used to think that the stationary earth is the center of galaxy and the whole known stars moving around the earth, all justified by our common senses and the ever limited knowledge of human at the time. One might interpret the universe in the same in terms of matter and vacuum.

Let us begin with an undisturbed infinitely continuous media as ocean. An observer would see nothing due to the symmetry and the uniformity of the media. Next assume we take an ultra thin disk rotating around an axis at a very high speed. This rotating disk would sweep a ball in the ocean, depleting it of water, and appearing to an observer as a ball. The mass associated to this disk could be understood to be equal to the area swept by the disk. Now, suppose this object moves in the ocean at some speed. As the object moves in the ocean, the places where it had emptied of the medium, tends to get filled with the medium, and depending on the speed at which the object moves, an empty space on its trajectory is produced. The larger this space is, the larger the quantity of the object becomes (since we are interpreting the mass of an object as the space it has depleted of the medium).

Thus considering any disturbance such as a package of very high energy of part of the media making a version of a space at the point, then one would see an entity which is due to the vacancy in the media (as one analogy, such as motion of molecules of water with a very high velocity in a closed volume creating a bubble in the infinitely unbounded ocean). Looking at what is so called mass of the form of such bubbles in infinitely continues media of the universe, then one might interpret the unanswered questions in above in a more consistent (or one whole) approach, as a unification in the interpretations of the observations. As a major conclusion of such hypothesis, the so called mass would just be a package of energy in the wave nature due to its existence through high energy package in the media, that when released the matter would vanish. Then the motion of such a package with the

highest known speed of the universe, the continuous media, would result to a much more massive of the matter, though not infinite. Then, since the so called particles, are made of such package of energy based on a kind of motion within it which needs to be periodic due to the consistency, it would result in a wave like behavior where if two such entities can ever get close enough together to interfere, then might disturb its other existence and release their enclosed packed of energy, while this might also create smaller packages of energy which might also be interpreted as the disturbances in the so called space of vacuum, or the continuous media of universe in this Game model. Then one might also interpret the foundation of gravity as the push of the entities in the media (in space towards each other) due to the continuity of the universe media. Based on the above observation and interpretation of the mass and space, the relativity of time might also be looked as the sequence of events relative to the states of the whole universe, and universe in terms of matter and space, being the reverse of that of common human senses.