

## ***Cosmic Accelerators and the Magnetic Structure of Matter***

### ***Abstract***

*Current physics theories are not only unable to explain the origin of magnetic fields in the Universe as a whole, but also, the intense galactic magnetic fields in spiral galaxies and the sources of high energy particles, both charged and neutral particles (Cosmic Rays and High Energy Neutrinos).*

One, mainstream scientist recently wrote the following quote about the issue of cosmic-scale magnetic fields and their role in galaxy evolution. "The mention of cosmic-scale magnetic fields is still likely to met with an uncomfortable silence in some astronomical circles – and after a bit of foot-shuffling and throat-clearing, the discussion will be moved on to safer topics. But look, they're out there. They probably do play a role in galaxy evolution, if not galaxy formation – and are certainly a feature of the interstellar medium and the intergalactic medium".

The reasons of course that caused all the myths, contradictions, mysteries and puzzles are the defects in the fundamental laws of physics, mainly if not exclusively the lack of understanding gravity and the failure to revise its laws. In current physics, there are so many misconceptions, for instance, all physicists and electrical engineers think that only charged particles are deflected by magnetic fields. This is true in the case of magnetic fields that we generate in the lab, but not in the case of extraterrestrial magnetic fields generated from dense plasma. Neutral particles such as neutrinos and photons interact weakly with non-plasma state and also with low density plasma, but in dense space plasma the interaction is quite strong. And since neutrinos have higher mass value than photons their interaction in regions of dense plasma is stronger compared with photons. However, even photons are deflected or decelerated in strong magnetic field regions like the one that surrounds our star. The so called bending of starlight has nothing to do with gravity. In fact, even if one uses the concepts of the current theories, the so-called gravitational bending of starlight is one of the biggest contradictions. How can gravity impact photons? They are supposed to have zero mass. The advocates of general relativity realized this fundamental contradiction, so they invented the idea that light is bent by gravity because it travels in a straight line (geodesic) bending of space-time or the effects of gravity on the fabric of space-time. This issue cannot be discussed in details in this article. The real properties of photon, including its helical trajectory will be explained in a peer-reviewed journal paper. For the time being you can understand the origin of the notion of the fabric of space-time by reading my previous article. ***Einstein discarded 99.99% of the physical reality of the universe***

<http://gsjournal.net/Science-Journals/Research%20Papers-Relativity%20Theory/Download/7106>

Nevertheless, the degree of interaction of neutral particles depends on the intensity of magnetic fields of the regions these particles are propagating through. The intensity of magnetic fields in space plasma is very strong and space-plasma currents are orders of magnitude stronger than the electric current we generate on the surface of the Earth. What mainstream physicists do not understand is that space plasma currents like the ones around the Sun and the Earth attract one another over long distance. They are the most powerful long-range attractors in the Universe. Thus, in physical reality and at the most fundamental level gravity is an attractive magnetic force (long range attraction between adjacent magnetic fields). This attractive magnetic force is dominant when the difference in the strength between the two fields is huge. But, at certain distance the two fields will repulse each other, since the strength would become identical. This fact is true at all scales. In other words, the distribution of matter in the Universe is exclusively governed by magnetic fields and their interactions. The proposed model of the magnetic structure of matter can explain all observations, physical phenomena and interactions at all scales and states of matter. Besides that, there would be no need for dark matter, dark energy and all other theoretical pseudo-physics notions.

In physical reality, all galaxies and large scale structures even structures larger than galaxy clusters, spin on their central axes as a result of super-intense magnetic fields at their cores. The so-called black holes that are believed to be present at the center of every galaxy are in fact ultra-intense magnetic field regions formed at the core of all large scale cosmic structures. The spin rate of any galaxy is proportional to the intensity of this magnetic field (what is believed to be black hole). Therefore, the cores of large scale cosmological structures can be considered as cosmic accelerators that can -in some cases- accelerate both charged and neutral particles to super velocities far exceeding the so-called speed of light (C). Thus, the denser is the core of a galaxy, the stronger its magnetic field, the faster its rotation, the longer its spiral arms and the higher is the energy value and velocity of particles emitted from its core and also from its spiral arms.

February 9, 2018

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