

# Unmasking the Ever Elusive Reality in the Universe

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## Background

The classical world is associated with macroscopic objects (cats, humans, buildings, oceans e.t.c.) while the quantum world is more associated with the microscopic molecules, ions, free atoms, free radicals, electrons, and sub-atomic particles; including quarks, neutrinos e.t.c.).

Now, reality is traditionally associated with the things which are physical and visible. But from my YouTube video on the theological, scientific and philosophical view of the universe (<https://www.professorcharlesflmbakaya.com>), I showed that by interacting with electromagnetic radiation across the electromagnetic spectrum, nature is actively converting from matter to non-matter and back at phenomenal speeds and accelerations; complicating observations, measurements and reality.

However, it is also thought that there is another state of matter called fractons which is inherently immobile and that remains poorly understood and may need to be catered for to make the quantum theory complete. According to a team of condensed matter physicists, fracton phases constitute a new class of quantum state of matter. They are characterized by excitations that exhibit restricted mobility; being either immobile under local Hamiltonian dynamics or mobile only in certain directions. Furthermore, the researchers observe that these phases do not wholly fit into any of the existing paradigms but connect to arrears including glassy quantum dynamics, spin liquids, quantum information theory and gravity (Nandkishore & Hermele; 2019). Furthermore, it is also known that when fractons combine with their counter-part mobile forms of matter, they can again become mobile; suggesting that matter could be made of immobile and mobile forms of non-matter or even the very elusive anti-matter.

Equally, I have wondered why when matter converts to non-matter, it can move around at high speeds and accelerations but always returns to the same spot and becomes matter again; thereby elucidating what is popularly referred to as superposition or in other words the existence of reality in several other forms; besides the traditionally physical and visible form that is characteristic of the macro, classical or Newtonian world.

However, my greatest wonder is, why does non-matter return to the same point from where matter became non-

matter? It looks like during this process, something remains immobile; providing the mobile phase of non-matter (including the ever so elusive anti-matter that may even be a definitional predicament) a position to return to, this being similar to providing a geographical information system (GIS) for matter that is often associated with a physical location?

Put another way, matter which in my earlier video I said is bound by gravity, interacts with light to become non-matter (or is it anti-matter?) of which the mobile phase moves around as the immobile one stays behind, but both with opposite spins that remain entangled, the distances of separation notwithstanding. However, because of the need for GIS to guide return back to matter at original location, some aspect of non-matter/anti-matter might actually be immobile.

## What is my take about reality?

Given this unfolding scenario and the fact that a lot remains unknown about reality and even anti-matter, I'm of the view that when matter interacts with electromagnetic radiation where energy is absorbed in quanta to prosecute certain excitations, ionizations and other transitions, the process can be summarized in the following new matter/non-matter (anti-matter) equation that relates matter and non-matter (antimatter) in a state of equilibrium:

***Matter (carrying gravity) + Electromagnetic Radiation (quanta from electromagnetic spectrum) = Non-matter {immobile non-matter/anti-matter carrying gravity as Fractons (with mass and no volume] + [mobile non-matter/anti-matter carrying quanta (with no mass but with smeared volume]}***

Now, in a YouTube video titled "Dark Energy and Vacuum Catastrophe" (<https://www.patreon.com>), a cosmological equation presented there indicates that for an expanding universe, the observed cosmological constant is the sum total of the classical and quantum cosmological constants. Though arrived at differently, the relational similarities with the above matter/anti-matter equation are electrifying! In other words, it would appear that the above equation similarly observes that matter, which is macroscopic (classical) and visible transforms electromagnetically to non-matter/anti-matter that is immobile with mass (classical) and mobile component (quantum) as summed by the observed cosmological constant.

## Conclusions

From the foregoing observations, this brief that has attempted to unmask reality comes up with several take aways as follows:

- 1) The above equation that is in as state of equilibrium summarizes reality while providing for quantum gravity and quantum mechanics; thereby completing the quantum theory that scientists think has always been incomplete since its advent.
- 2) The relationship (equilibrium) between matter and non-matter (anti-matter) is what is referred to as superposition. Interestingly, this state of affairs contradicts and even appears to unseat the Anti-matter Theory by Dirac which appears problematic in positing that when matter interacts with anti-matter, it annihilates and that nothing should have remained after the Big Bang. That is premised on a contradictory initial condition that presupposes the Big Bang; where there were equal proportions of matter and anti-matter that should have annihilated. The correct position as per this my new equation/Theory is that it is matter that relates with electromagnetic radiation to produce two forms of non-matter/anti-matter (immobile and mobile) that then get into entanglement and upon pairing back release the quanta that caused matter to become non-matter/anti-matter and because of the equilibrium, this process must go back and forth endlessly. Now, because of this equilibrium, it would appear that contrary to the Big Bang Theory and the defective anti-matter theory; the Universe neither expands nor does the matter and anti-matter annihilate. In the circumstances, the two Theories fall flat and must be replaced as a similar fate could befall the Standard Model of Physics that is partly anchored on a similar misconception.
- 3) The relationship between the immobile and mobile phases of non-matter (anti-matter) is what is referred to as entanglement; suggesting that these two phases relate by having opposite overall spins.
- 4) The immobile phase of non-matter (anti-matter) is what scientists most probably refer to as fractons that are inherently immobile as they carry gravity and mass; suggesting that it is in this phase of matter that we can find gravitons and the Higgs Boson, among other sub-atomic particles.
- 5) The equation (equilibrium) applies for both the microscopic as well as the macroscopic worlds. While the microscopic world is well associated with quantum mechanics, the macroscopic world is not; complicating reality.
- 6) Thus, in the macroscopic world, matter is often in superposition with its other two forms (i.e. the

immobile/framework and the mobile phase of non-matter/anti-matter). Hence, for superposition to be, it would appear that these three phases are similar in appearance in the macroscopic world, thereby complicating reality. Meaning, we don't quite get to know if the phase being seen is the original matter or either of its two phases of non-matter/anti-matter (mobile or immobile).

- 7) These observations raise the possibility that aliens might be forms of mobile and immobile non-matter/anti-matter; probably also explaining the many weird images lately caught on camera of distortions of humans and even animals, among others.
- 8) Also, at the altitude where astronauts loose gravity, they might leave behind their immobile phases of non-matter/anti-matter which might probably be sighted and construed to be aliens as increasingly becoming reported.
- 9) Furthermore, it would appear that it is the gravity in matter that binds atoms and molecules together to make it physical and visible. However, when banged with assorted quanta, the matter excites and even multiply ionizes to produce components similar to what happens in mass spectroscopy where a molecular ion peak corresponds to the entire object but with assorted fragmented components resulting from the multiple breakages. In other words, while gravity is involved in creating matter, assorted quanta constitutes the anti-gravity that blasts matter apart forming assorted anti-matter that have mass or are mass less and invisible; partly accounting for the elusive dark matter and dark energy in the universe. Given that this process is in equilibrium, it can be expected that the universe should not be expanding endlessly, except where other factors; man-made or otherwise, shift the equilibrium to the right as might explain global warming among other occurrences.

## REFERENCES

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