



## The Nature of the Dark Matter: An Extrapolation of Pair Creation

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### Abstract

Dark matter is one of the greatest unknowns in the cosmos, despite being the most important gravitational component. Indeed, dark matter is the most prevalent matter and its bulk has an impact on the design of the universe. It has permitted the construction and preservation of cosmic structures. As a result, understanding the cosmos without knowing its qualities is extremely difficult. However, it only reacts to gravity and not to the other fundamental forces. It is not a weak reaction, but rather the complete lack of direct reactivity with full spin (even in our particle accelerators). Indeed, dark matter is not only opaque to us because it lacks a measurable electromagnetic field, but it also exhibits no nuclear reaction at all. Finally, it appears to be able to influence only wide areas, implying that it lacks concentration. So the only thing we know about dark matter is its non-properties or what it does not do, which is react with our own fundamental forces (save gravity) and cover only enormous areas (big gravitational lenses). As a result, dark matter remains a big mystery. There is, however, a solution if the problem is phrased differently.

*Keywords: Dark matter; Dark energies; Universal expansion; Pair creation; Gravity; Halo; Quarks*

### Introduction

The pair creation with opposing energy is the starting point. These energies produce compounds with properties comparable to dark matter! Science can be done in a variety of ways, including observation, mathematics, thought experiments and so on. However, history demonstrates that thought experiments can be used to direct research. So it was with Albert Einstein and Niels Bohr on quantum physics' hidden variables. Alain aspect solved it by demonstrating the EPR paradox. So is science: It is always growing thanks to its pioneers! As a result, thought experiments are used as primary research in this case. In this context, we extrapolate the pair creation to uncover what could have attributes of energies that are diametrically opposed to ours, just as antimatter is diametrically opposed to matter [1].

### Literature Review

Is the formation of pairs a recurring universal phenomena or merely a coincidence? In the case of a recurrent phenomenon, this indicates that everything, including energies, is formed by pairs. To test the validity of such a model, we must reimagine the energies by envisioning what the qualities of energies opposing ours may be. The first thought is that such energies would

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cancel each other out, rendering them ineffective, but then we realize that energy is undifferentiated, so it does not fight but adds up. As we continue our investigation, we discover that such energies produce materials with properties comparable to dark matter. We uncover a matter with the property of being unable to interact with our own forces or conventional matter. Similarly, it is incapable of collapsing on itself. Finally, it has a big bulk on a global scale [2].

According to the theory of pair formation, all matter has an antimatter counterpart. Consequently, a quark and an electron are produced using a positron and an antiquark, respectively. In essence, the opposite of everything is generated. Yet, just as opposites' characteristics vary, so do their behaviors'. Thus, matter survived antimatter thanks to its asymmetry. These opposites are first generated fairly, nevertheless. Each North pole is generated with its corresponding South pole and each polarity also has its corresponding opposite rotation, therefore it is a recurrent phenomenon. Therefore it appears that opposing pairs produced everything. I refer to the law of equity as a type of universal equilibrium. This takes on new relevance when we apply it to the notion of super partners. According to this hypothesis, every substance corresponds to an energy source. Similar to how all energy has a material counterpart, including the tremendous energies at the universe's inception. The monopole, a theoretical particle with extreme mass, is their material counterpart. Because every monopoly is formed with its opponent, this theory, which is connected to the concept of equity, provides anti-monopolies [3].

## Discussion

What about pair energy? It energy would then be doubled, but in the other direction. There are two types of energy: Positive and negative. However, because energy is undifferentiated, these two forms might coexist without touching. In reality, energy does not clash; rather, it concentrates on matter. Thus, the only conflict with lightsabers exists in one's imagination. Laser beams, in actuality, do not stop at the end of a meter. The photon travels straight after being launched. It merely stops to contact the matter and cause it to react. As a result, lasers that intersect do not collide. They come into contact with each other and mix. But they don't fight; instead, they add up! As a result, there is no annihilation of these two opposites. Thus, positive and negative energies coexist in the same world. But what do the terms "positive" and "negative" energy mean? This means that what attracts us turns repellent to others, despite the fact that these are the same energies as ours, namely gravity, electromagnetic and strong and weak nuclear forces. In short, the dark forces are essentially our own inverted forces, according to this idea. The powerful black nuclear force, for example, is a repulsive force rather than a binding one. As a result, it does not bind the black quarks together, but rather drives them apart.

The force of gravity, on the other hand, is an exception. The Higgs particle that begins the mass has a spin zero rather than a full spin. Indeed, a spin zero has quite different features than a full spin: the direction of the full spin is important, whereas the orientation (if any) of the zero spin has no significance. As a result, we might conclude that this inversion of forces has no effect. In short, gravity caused by mass is its inverse. These opposing energies, like ours, produce matter. Matters whose masses will follow gravity automatically. However, these issues only affect the opposing forces and not us. Repulsive forces that speak of stuff spreading in space [4].

As a result, Pauli's exclusion principle has no effect on these issues. This one prohibits material particles from sharing the same space. However, because these things have different properties, they can exist in the same space time as us. Furthermore, if they do not react to our powers, they will be utterly invisible and undetected to us. As a result, even if they covered our entire horizon, we would not be able to tell them apart! Except for their gravity, because they are still material forms, therefore half spin. They have a lot of mass because of these characteristics. A mass that can grow in response to energies such as dynamism.

These things, being associated with repulsive forces, would reject each other violently. As a result, there would be no baryogenocide (matter annihilation) with baryogenesis (matter production). Because, with our forces, matter clashes with antimatter and only a small percentage of matter remains. This surviving residue is what makes up our observable cosmos. However, because these materials repel one other, there is no conflict because everyone is fleeing. As a result of these materials not interacting with one another, matter and antimatter coexist peacefully. That would mean that the number of these particles is far greater than ours. Furthermore, owing of the repelling forces, these substances would never collapse on themselves. As a result, the cosmos would not be dragged into a massive black hole due to its mass. On the contrary, they would be fluid and impalpable while, due of their sheer quantity, being everywhere [5-7].

These matters would prefer to follow a non-repulsive mass. So, mass that does not react with their own forces. In short, they would prefer to follow our matter rather than theirs and thus follow all these gravitational fields. Fields that they would amplify with their own mass and because of the large amount of these matters with their antimatters, these fields would be very broad. Doesn't that remind you of something? But yes, the ghost gravity! In other words, we are talking about dark matter! Dark matter, a simple extrapolation of the pair creation. Interesting, isn't it? Similarly, these particles also react with the effect of vacuum, a quantum vacuum that engages a pressure. With our matter, the vacuum pressure is minute, but with practice on repelling particles, it grows considerably stronger. Because the black strong force is so repulsive, it exerts maximal pressure on the quantum vacuum. The entire thought produces a universally repellent field. Is there anything else it reminds you of? But, perhaps, the universal expansion?

Thus, by extrapolating the pair creation, we can discover a very odd stuff with features that appear to correspond to dark matter. Similarly, some properties of this hypothetical matter can be anticipated and confirmed for dark matter. As a result, this theory speaks about particles that have no interaction with our fundamental forces (save gravity). The question is whether the dark matter we're looking for reacts "little" (scientists are usually cautious) or not at all [8].

Because it is a quantum fusion, the sun, for example, combines only a few ions. As a result, only the exception fuses, not the mass. So the sun has been shining for a very long time and will continue to do so for billions of years. However, only a small amount of mass is transformed into energy in this fusion. As a result, the sun beams "little" with "little" a massive mass! This limitless number of particles multiplies the likelihood of combining, causing the sun to shine brightly. It is even believed that dark matter is abundant, as it is responsible for the majority of the universe's gravity. Thus, reacting a "little" with a "little" bit, with all this mass, must inevitably result in consequences, even if they are minor, like neutrinos. The only effects observed, however, are gravitational and non-energetic in nature. As a result, the absence of any interaction leads to this dark matter being utterly insensitive to our energetic forces [9,10].

### **Conclusion**

In this cosmos, everything is formed by pairs. It's not a coincidence; it's a result of physical principles. And while the principles of physics are not local, they are the same everywhere in the cosmos. Thus, each north pole has an opposite spin, each polarity has an opposite rotation, each particle has an antiparticle and energy has an opponent. The only thing that appears to be shared by all is the space itself! A space time that reacts to gravity and is shared by all fermions. Pair formation is a random, equidistant, immediate and global occurrence.

## **Demonstration**

Finally, a computer simulation can be used to demonstrate it. A simulation of particles that obey our reversed forces, beginning with strong nuclear force and gravity. Allow everything to simmer before adding a neutral mass (the Milky Way galaxy). Examine what causes all of the movements. They will, in my opinion, all follow the neutral mass and add their own mass along the way (explaining the gravity of every location in the galaxy). If this is the case, the simulation is worthy of a Nobel prize because whomever created it has also demonstrated the existence of dark matter!

## **Conflict of Interest**

Although this theory is related to a book, the book does not require that theory. There is no conflict of interest, except that being right is the most fascinating at all levels. The human ego, on the other hand, is a conflict of interest that can lead to human blunders. This is why we must exercise caution: Because conflict is unavoidable, information can only be validated if it is confirmed by a computer simulation.

## **The Debate**

Science is strange: We make extraordinary discoveries but since we do not understand them, we often miss out on little wonders. Pair creation is considered as example.

## **References**

1. Trimble V. Existence and nature of dark matter in the universe. *Annu Rev Astron.* 1987;25(1):425-472.
2. Hooper D, Baltz EA. Strategies for determining the nature of dark matter. *Annu Rev Nucl.* 2008;58(2):293-314.
3. Matos T, Urena-Lopez LA. On the nature of dark matter. *Int J Mod Phys D.* 2004;13(10):2287-2291.
4. Metcalf RB, Silk J. A Fundamental test of the nature of dark matter. *Astrophysical J.* 1999;19(1):234-237.
5. Strigari LE, Bullock JS, Kaplinghat M. Determining the nature of dark matter with astrometry. *Astrophysic J.* 2007;657(1):23-27.
6. Zavala J, Lovell MR, Vogelsberger M, et al. Diverse dark matter density at sub-kiloparsec scales in milky way satellites: Implications for the nature of dark matter. *Phys Rev.* 2019;100(6):67-69.
7. Benito M, Criado JC, Hutsi G, et al. Implications of Milky Way substructures for the nature of dark matter. *Phys Rev.* 2020;101(10):103-123.
8. Beltran M, Hooper D, Kolb EW, et al. Maverick dark matter at colliders. *J High Energy Phys.* 2010;21(9):1-7.
9. Diemand J, Moore B, Stadel J. Earth mass dark matter haloes as the first structures in the early Universe. *Nature.* 2005;433(7024):389-391.
10. Malhan K, Valluri M, Freese K. Probing the nature of dark matter with accreted globular cluster streams. *Mon. Notices Royal Astron.* 2021;501(1):179-200.