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Parallel Dimensions

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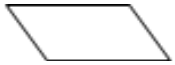
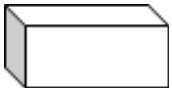
Abstract

It has been found that by investigating dark matter they found a particle that could act as a portal to the fifth dimension, the original intention was "to explain the possible origin of fermion masses (particles) in theories with an extra deformed dimension. and could produce gravitational waves that can be searched for with future gravitational-wave detectors". This heavy particle would necessarily connect the visible matter we know and that we have studied in detail with the constituents of dark matter, assuming that dark matter is composed of fundamental fermions, who live in the extra dimension, provoking the mysteries surrounding their behavior when they are detected from our four-dimensional universe. They suppose a hypothetical particle that could act as a portal to a parallel dimension located between the visible universe and dark matter. This hint indicates the presence of a field associated with a particle in the generation of masses. They suppose a hypothetical particle that could act as a portal to a parallel dimensión, located between the visible universe and dark matter. This suggestion indicates the presence of a field associated with a particle in mass generation.

Keywords: Extra Dimension, Gravitational Waves, Electromagnetic Induction, Heavy Particle.

In geometry dimension belongs to the natural (dimension Є N) is a characteristic of space.

We have the following concepts.

- • A point has no parts. We assign it zero dimension
- …… A line or curve is a succession of points getting closer and closer has Length only. We assign dimension one
-  A surface has length and width. We assign dimension two.
-  A solid body has length, width and depth. we assign dimension three
- t Time We assign dimension 1
- Parallel dimension We assign dimensión 5

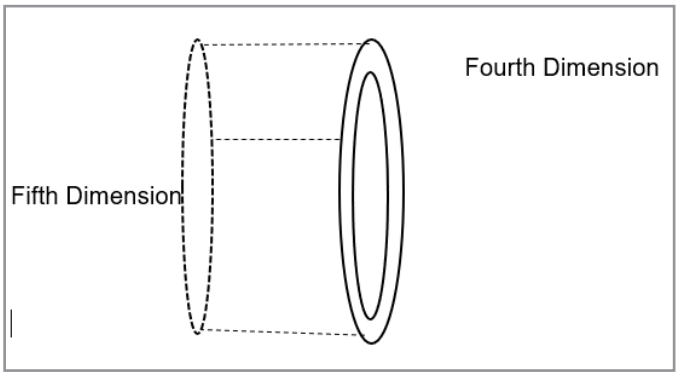


Figure 1: Tunnel of Electromagnetic Energy Induced as a Portal of access to the parallel dimension by expanding the Fourth dimension with the dimensions of space-time.

Herman Minkowski in 1908 tells us that dimensions such as length, surface and depth are in time. Dimension Time 1, with the 3 dimensions (length, surface, depth) we get four dimensions. In the fourth dimension you have movement with the evolution of events. Our senses perceive space – time in 4 dimensions.

Albert Einstein in 1905 mentions that simultaneous time lapses are relative. You can have different simultaneous events at the same time.

In reality time is not separated from the physical space of places, it is imaginatively separated as a reference to be able to understand what surrounds us.

Relativity: It is dividing an event into space and time.

Space – time
Hermann Minkowski in 1908 tells us that "the space-time of events is absolute (unique)" our senses perceive space and time simultaneously.

The space that is affected by gravitation is in time.

Event: What is done in space (place) and time. Each event is absolute, when there are intervals it is possible to perceive the events.

The moment of time can not be added, the numbers can be added. For example, adding ten chairs, knowing that really what we add up are the scalar numbers and not the chairs themselves (chairs cannot be added as such).

Associating a number with the moment of time is subjective.

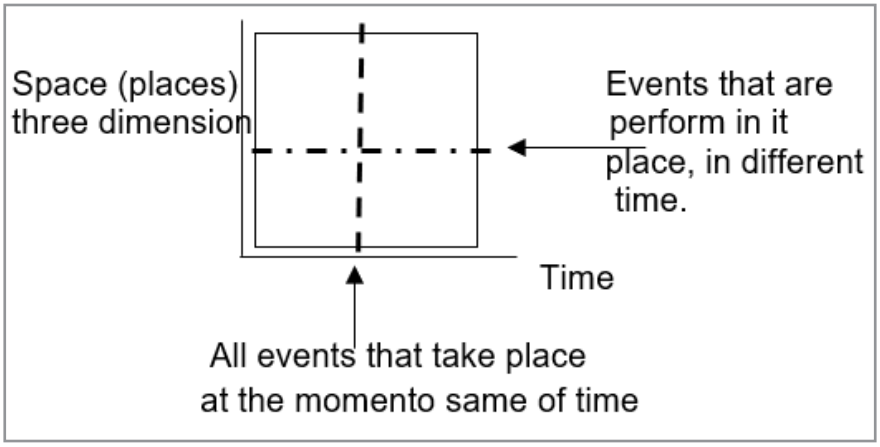


Figure 2: Physically in reality you don't have this separation of space and time.

All events that take place at the same time. For example, ringing the bell and opening the door at the same time. All events that take place in the same place at different times. Physically there is no such thing at rest.

Parallel Dimensions

There may be more than 4 dimensions, but they are not visible to our senses, that is, we cannot perceive them. Scientists from the University of Granada (UGR) in Spain and the Johannes Gutenberg University of Mainz (Germany) devised the Kaluza-Klein theory, which considers five dimensions [1-3].

They assume a hypothetical particle that could act as a portal to a parallel dimensión, located between the visible universe and dark matter. This suggestion indicates the presence of a field associated with a particle in the mass generation.

Scientists Adrián Carmona, Javier Castellano Ruiz y Matthias Neubert, who were investigating dark matter found a particle that could act as a portal to that matter, the original intention was to "explain the possible origin of the masses of fermions (particles) in theory, with an extra parallel dimension." The existence of these heavy particles, it would necessarily connect the visible matter we know with the constituents of dark matter, assuming that dark matter is composed of fundamental fermions living in the extra dimension, causing the mysteries surrounding their behavior when they are detected from our four-dimensional universe. Fermions are subatomic particles, to which quarks and leptons belong, which form up matter, they behave as if they were particles and antiparticles at the same time and that, have a determining role to access the parallel dimension.

"These new particles could be important in the cosmological history of the universe and could produce gravitational waves that can be searched for with gravitational wave detectors". Astrophysicists estimate that about 85% of the matter in the universe is dark matter which does not emit any electromagnetic radiation (such as light) and plays a central role in the formation of structures and the evolution of galaxies.

The UGR researcher, Adrián Carmona explains, "This particle could be fundamental in the generation of masses of all particles sensitive to this extra dimension, and be at the same time the only relevant window to a possible invisible sector responsible for the existence of dark matter." The hypothesis was published in a study in The European Physical Journal C and suggests that the particle may provide an explanation for dark matter, which has never been directly observed but is thought to explain most of the mass of the universe. The researchers say particles can travel throughout the universe, including the parallel dimensión [4-6].

According to Eduardo Martínez de la Fe: "dark matter cannot be explained in the Standard Model, the new physics can be oriented towards that parallel dimension because it would solve some of the questions asked by the physics of unresolved particle physics of current physics", among them it would allow dark matter to be integrated into a new model, and would solve at the same time the problem of hierarchy (no one knows why the Higgs boson is light when it should be very heavy), which affects theoretical physics. The existence of the parallel dimension is imperceptible to the human eye in space-time. An experienced means is the measurement of the force of gravity in a very small area (a millimeter or less), looking for anomalies. The parallel dimension has many names, fifth dimension, the space-time continuum, the degree of space-time distortion, the parallel universe.

Albert Einstein in 1915 when he raised the fifth dimension, tried to help others visualize it by making an analogy between the universe of space - time as a layer of rubber, which can expand, stretching or squeezing, bending or flattening, by an unknown force to pass to the parallel dimension, related the presence of the gravitational field of matter with the deformation of space-time. Others have conceptualized the fifth dimension by linking our universe in space –time as parallel with other dimensions, in which we assume that particles or forces can move under the conditions of the gravitational field.

If we assume that we have a vehicle that protects us from the environment to travel in space – time.

Figure 3: Vehicle for space-time travel

If we also assume that the vehicle can induce a magnetic field (B) with an induced electric field (D) in a local gravitational field, applying an electric field (E1) to that field and that induced magnetic field (H), apply another electric field (E2), with an interval of several seconds, with energy (such as that of a thunderstorm beam or The Large Hadron Collider (LHC)) and sufficient force to deform, stretch or expand (Ex) to the fourth dimension, opening a tunnel of induced electromagnetic energy or pathway or portal of communication to the parallel dimension.

The Large Hadron Collider (LHC): Type: Synchrotron, Location: CERN, Switzerland/France, Length/Size: 27 km (circumference), Energy (Max): 14 TeV, Accelerated Particles: Protons, lead ions, Main Purpose: High-energy physics, Higgs boson.

The organization is doing experiments such as trying to create black holes, which causes lightning from thunderstorms to attract to CERN, unwittingly or intentionally, causing you to be opening doors to other dimensions. The question is, ¿Can they control it?

Dimensional Expansion (Ex)

Applying magnetic and electric fields with their inductions and using the product Grassmann(Λ) we obtain the following equations

$$Ex = \int [(B+D) \wedge (E_1+H_1) \wedge (E_2+H_2)] \cos (w\ t - k\ x)\ d\ t \qquad (1)$$

Dimensional Expansion = Induced Electromagnetic Wave

The electromagnetic field with electromagnetic induction

$$Ex = \int [(H^{2} + E^{1} \Lambda d T^{1}) \Lambda (D^{2} + B^{1} \Lambda d T^{1})] \cos (w t - k x) \quad (2)$$

By developing the equation and reducing terms, we obtain:

$$Ex = \int [(H^{2} \Lambda B^{1} + E^{1} \Lambda D^{2}) d t^{1} \cos (w t - k x)] \quad (3)$$

With the control of the energy of electromagnetic induction to deform or expand (Ex) to the fourth dimension it is possible to move to the parallel dimension.

Figure 4: The ship induces an electromagnetic energy tunnel or path or Communication access portal to the parallel dimension in space- time

Figure 5: The ship has access to the parallel dimension through the electromagnetic energy-induced tunnel

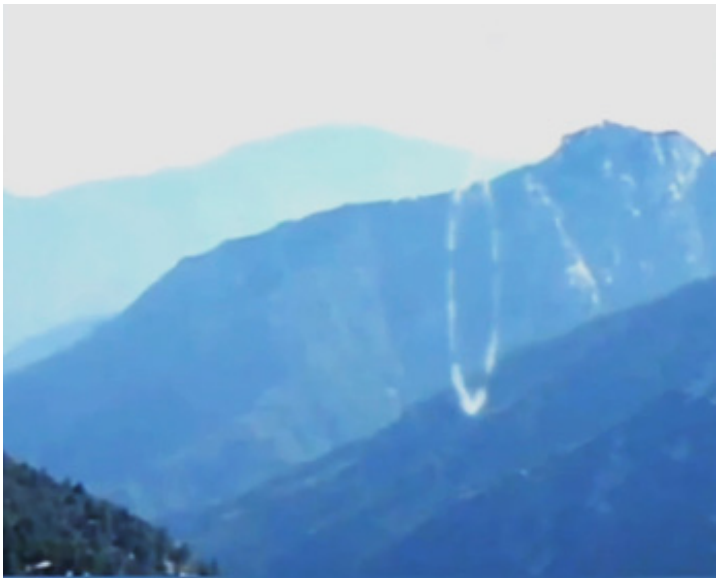


Figure 6: Parallel dimension access is closed.

Carlos Peña Garay is a theoretical physicist and director of the Canfrac Underground Laboratory (LSC).

"The starting point is that Einstein's equations could explain universes other than our own, and, if they do, ¿is it not because there are?, even within theoretical physicists there are different conceptions of what are considered parallel universes. One of the great theoretical advances of the last few decades is that we know that it takes more than general relativity and particle interactions to explain the Universe, and I mean only our own Universe. At the end of the last century, a very beautiful idea emerged, which is string theory. It basically says that what we think are dots (referring to subatomic particles, like an electron, for example) are not, and they are strings [7, 8].

This opens up the possibility that there are other dimensions, with universes that unfold in dimensions that are not ours," says Carlos Peña Garay.

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