Dark matter and quantum entanglement

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Abstract

This paper explores the possibility of unifying the four fundamental forces with dark matter and quantum entanglement. It was found that when dark matter has quantum entanglement, the dark matter vortex forms and the dark matter outside the vortex will expand. This will slow down the matter and dark matter being involved in the vortex. The dark matter inside the vortex will also expand under the effect of the rotating compression force . The expansion force is proportional to the internal rotation speed of the vortex. From the edge to the core, the expansion force increases with the increase of the rotational compression force, and the dark matter at the core expands the most. A compression force forms under the effect of the spin of the matter after it enters the center with the vortex. The gravitational layer forms because the core dark matter is subject to the spin compression force of matter and the compression force of vortex rotation. The expansion force of the dark matter outside the gravitational layer will increase with the increase of the rotating compression force of the matter at the core of the vortex. The much the core matter and the faster the vortex center rotate, the greater the density of dark matter in the gravitational layer, and the smaller the density of the dark matter outside the gravitational layer. In this case, three spheres will form at the vortex where microscopic particles and macroscopic objects are located, which are gravitational layer, expansion compression zone, and expansion zone outside the vortex from the core to the outside of the vortex. The smallest particle has no expansion compression zone. The largest vortex is the universe and there is no expansion zone outside the universe. The expansion compression zone is composed of high expansion zone and low expansion zone. The diameter of the former is the same as the radius of the gravitational layer, and the remaining part is a low expansion zone, which is most obvious when the core is a black hole. The density of the gravitational layer and the expansion zone outside the vortex can be controlled by controlling the rotation speed of the dark matter vortex. This principle can also be used to create dark matter vortexes and control nuclear fission and fusion and thus create aircraft. In addition, it can also be applied to control and make celestial bodies and black holes. Four basic forces can be explained and quantum mechanics and the theory of relativity can be unified by combining dark matters and quantum entanglement.

Key words: dark matter, quantum entanglement, double helix, vortex, superposition state

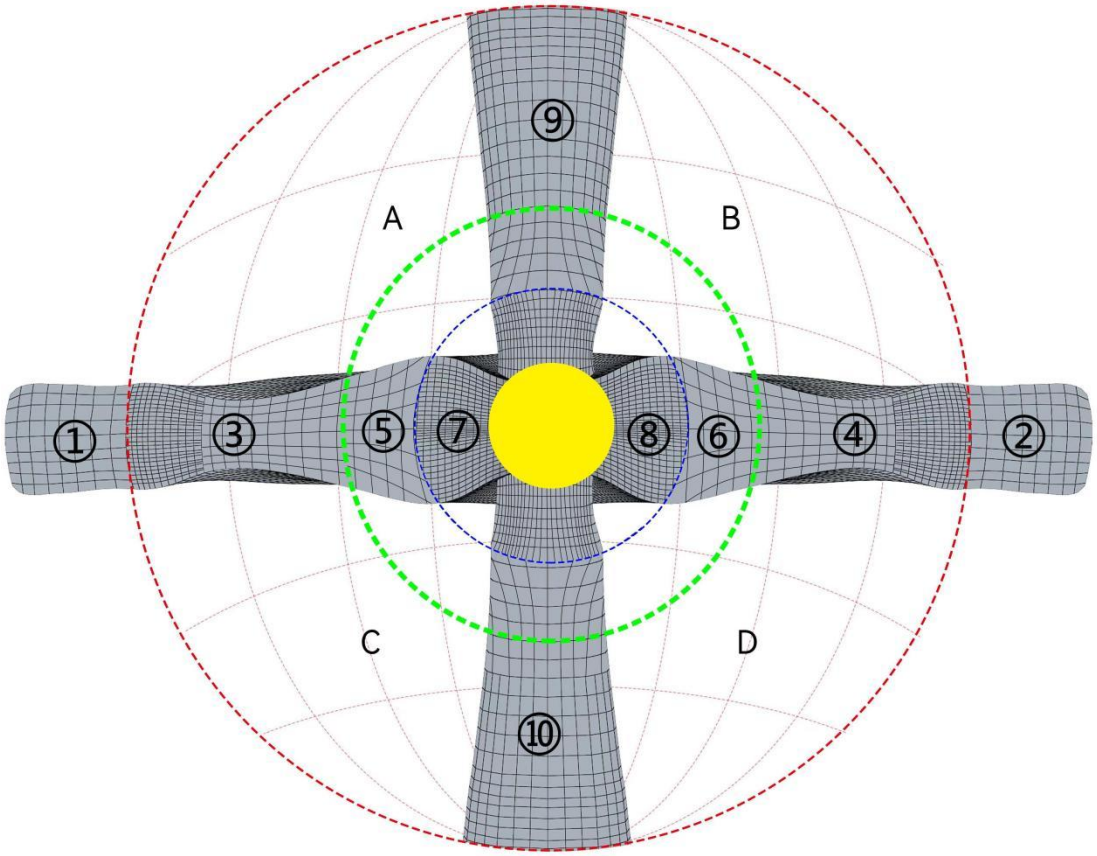
Spin and expansion are the intrinsic property of microscopic particles and dark matter respectively. Elementary particles rotate left and right at the same time, driving the rotation of dark matter. Thus, dark matter is in a superposition state (20). Dark matter expands to form an impact force, causing dark matter to form a vortex. The vortex rotates left and right at the same time. The dark matter vortex thus caused is in a superposition state of left-rotating and

right-rotating. Celestial bodies form at the center of the vortex of dark matter.

(I) The cause of vortex

The cause of vortex is closely related to dark matter. Spin of elementary particles drives dark matter to rotate. From a microscopic perspective, a particle with zero spin can be divided into two particles with opposite spin directions. In the macro world, two magnetic fields rotating in the same direction repel each other, and two magnetic fields rotating in opposite directions attract each other. It can be inferred that dark matter is a double helix structure of left-rotating and right-rotating parts. Thus, it also can be inferred that the smallest elementary particle has double helix structure of left-rotating and right-rotating parts. Since the spin of particles drives the rotation of dark matter and particles are arranged in a disordered state, the rotation of dark matter is also disordered. The dark matter will be affected by impact force when matter moves or dark matter expands. A part of the impact force becomes a rotating force, forming a vortex, like a mushroom cloud formed by an atomic bomb explosion. Since the dark matter has quantum entanglement, the dark matter outside the dark matter vortex will expand. The expansion force decreases from the outer edge of the vortex to the far side, and the density of dark matter increases from the outer edge of the vortex to the far side, which will slow down the matter and dark matter being involved in the vortex. The dark matter inside the vortex will also expand under the effect of the rotating compression force (19). The expansion force is proportional to the rotation speed of the vortex. From the edge to the core, the expansion force increases with the increase of the rotational compression force, and the dark matter at the core expands the most. The dark matter vortex rotates to form a rotation axis, which is compressed and expands to form an expanded rotation axis. This is the density structure of the dark matter inside the vortex when it is just formed. Since the rotation axis inside the vortex is expanded, the dark matter inside the vortex is mainly concentrated on the equatorial plane near the inner edge of the vortex. The closer to the rotation axis, the smaller the density of dark matter, and the harder it is for the massive matter to exist. Thus, the matter inside the vortex will enter the core to form a spherical celestial body instead of a cylindrical celestial body. Although the rotation axis inside the atomic vortex also expands, the electron can still exist at the position of the rotation axis because of the small mass and low density of the electron. A rotation compression force forms under the effect of the spin of the matter after it is compressed by the vortex into the center. The gravitational layer forms because the core dark matter is subject to the spin compression force of matter and the compression force of vortex rotation. The expansion force of the dark matter outside the gravitational layer will increase with the increase of the compression force at the core of the vortex, resulting in a high expansion zone. The much the core matter and the faster the vortex center rotate, the greater the density of dark matter in the gravitational layer, and the lower the density of the high expansion zone outside the gravitational layer. The density gradually increases outward from the boundary of the gravitational layer. The diameter of the high expansion zone is consistent with the distance from the edge of the gravitational layer to the core of the gravitational layer, that is, the radius of the gravitational layer. The rest are the low expansion zone. The expansion force in the low expansion region is related to the vortex rotation speed. The faster the vortex rotates, the greater the vortex compression force and the greater the expansion force. The density of the low expansion zone gradually decreases from the edge of the vortex to the high expansion zone. As shown in Fig. 1, the difference between high and low expansion regions is most evident when the core is a black hole. The expansion of the dark matter inside the vortex gradually increases from the edge to the core. A resistance will form when the dark matter and the

matter inside the vortex revolve towards the center and compress the matter. The expansion coefficient of dark matter outside the vortex is small because particles with small mass have small rotation force and low density. After entering the high expansion zone, the vortex in which the particle is located can be compressed into the vortex center by rotation of the dark matter. Particles with large mass have a higher core density and the external expansion coefficient of the vortex is large, and they cannot be compressed into the vortex center. As the dark matter forms, the vortex bounces back to form another vortex. Thus, multiple small vortexes will form within one large vortex (4-8). That's why there are so many celestial bodies in a galaxy. Since the rotation axis of the vortex is expanded and there is no matter gathering in the center of the upper and lower ends of the rotation axis, there is no compression of dark matter caused by the spin of matter. Thus, the rotation axis can only be in an expanded state. The expansion force is proportional to the spin speed. However, the faster the rotation speed of the rotation axis, the smaller the density. The rotation is fast, the density is small and the diameter is short near the core. The density of dark matter gradually increases from the rotational axis to the equator. The Fermi bubbles at the upper and lower ends of the center of the Galaxy are the result of the expansion of the rotation axis and the rotation of the axis so that the matter cannot escape or gather together. Each vortex rotates around its expanding axis of rotation rather than its core, as do small particles, large objects, and galaxies (18). (See Fig. 1)



The area within the red dotted line represents the entire spherical dark matter vortex. The yellow area in the vortex represents the core celestial body or material of the vortex. ① and ② outside the red dotted line represent the dark matter outside the vortex, covering the entire spherical vortex. As it extends outward from the red dotted line, the density gradually increases, and the expansion distance equals to the radius of the inner vortex of the entire red dotted line. The expansion compression zone is from the red dotted line to the blue dotted line, where ③ and ④

between the red dotted line and the green dotted line are the low expansion compression zone, and ⑤ and ⑥ between the green dotted line and the blue dotted line are the high expansion compression zone. The distance from the green dotted line to the blue dotted line is consistent with that from the blue dotted line to the center of the yellow sphere. A, B, C and D are also expansion compression zones. The density gradually decreases from the red dotted line to the blue dotted line, which is consistent with ③ and ⑤. The density of dark matter decreases gradually from the equator to the axis of rotation. ⑦ and ⑧ represent the gravitational layer, and also represent the equatorial region of the gravitational layer. The density gradually increases from the blue dotted line to the center of the yellow area. ⑨ and ⑩ represent the rotation axis of the entire vortex. The density gradually decreases from the red dotted line to the blue dotted line edge, and gradually increases towards the equator.

① Take the solar system as an example

After the dark matter vortex forms, the outside dark matter expands, and the inside dark matter rotates and compresses the hydrogen element to the vortex center to form the sun. Other heavy elements form planets, and those far from the vortex core can also form gaseous planets. Planets rotate around the vortex center driven by dark matter. Take Mercury as an example: Mercury rotates around the vortex center driven by dark matter. When Mercury is pushed to the perihelion, dark matter in the high expansion compression zone of the gravitational layer near the sun is largely expanded and has low density; the density of dark matter in the vortex core of Mercury is high due to the compression of Mercury. As the vortex core of Mercury is close to the high expansion compression zone outside the solar gravitational layer, the expansion force in the high expansion zone outside the solar gravitational layer increases due to the compression of dark matter in the gravitational layer of the vortex core of Mercury. The density of dark matter in the high expansion zone outside the solar gravitational layer is too low, making Mercury unable to approach the sun anymore. At this point, due to the compression force of dark matter in the vortex where the solar is located and the inertial force of Mercury's rotation, the vortex where Mercury is located will slide forward, resulting in perihelion precession. When the inertial force of Mercury is offset by the expansion and repulsion force of the high expansion compression zone outside the solar gravitational layer, the high expansion compression zone outside the solar gravitational layer and the dark matter outside the vortex where Mercury is located expands and rebounds back, keeping Mercury away from the sun as it orbits it. When Mercury is in perihelion precession, its rotation speed is extremely slow, or maybe zero, which means that the tide is locked, but the locking time is very short. When Mercury reaches aphelion, the rebound force is completely offset by the rotating compression force of dark matter. The rotation and compression of dark matter push the Mercury to get closer to the sun as it orbits it. Thus, Mercury's orbit around the sun is elliptical. All celestial bodies in the universe have elliptical orbits, regardless of electrons, celestial bodies or galaxies. The rotational compression force of the dark matter vortex where the earth is located is large, while the moon is pushed into the high expansion compression zone outside the earth's gravitational layer by compressive force. The expansion force in the high expansion zone outside the earth’s gravitational layer will increase due to the compression of dark matter in the lunar gravitational layer. The expansion force of the high expansion zone outside the lunar gravitational layer will also increase due to the compression of dark matter in the earth's gravitational layer. As the moon is squeezed by the expanding dark matter, it retreats and is stuck and cannot rotate with its own vortex or bounce back under the compression of dark matter in the earth's expansion and compression zone. In this case, the following two cases happen. Case 1: If

the radius of the vortex where the moon is located is small, its edge cannot contact the earth. The expansion of dark matter outside the vortex where the moon is located compresses the earth's space, causing it to retreat. As the earth retreats, the space on the side backing on to the moon will also be compressed. As a result, the sea water on both sides of the earth facing the moon and backing on to the moon will rise due to the compression. Thus, a spherical concave surface is formed on both sides of the earth facing the moon and backing on to the moon due to the expansion and extrusion of dark matter, and the depth of sea water facing and facing away from the moon will become smaller. However, the sea water on the remaining side is not compressed, and the sea ebbs and the water become deeper. As the earth orbits the sun at the vortex center driven by dark matter, tides will occur when the vortex where the earth is located is compressed and flattened by the vortex in which the sun is located. The earth is compressed the most and the tide is the greatest when the earth, moon and sun are in a straight line. The expansion zone outside the lunar vortex is close to the earth, and the compression force is large. The dark matter vortex of the sun compresses that of the earth. The vortex where the earth is located has a large diameter, which can disperse compression force. The earth at the core of the vortex is under less compression force than the moon, and so the moon plays a major role in the earth's tides. Case 2: If the vortex where the moon is located wraps a part of the earth, the seawater in the overlapping part rises, the rest of the seawater falls, and the seawater facing away from the moon falls. Case 3: If the moon's dark matter vortex has a large radius and wraps around the earth, the seawater near the moon's side is compressed by the rotation of the moon's vortex toward the core of the vortex where the moon is located. At this time, there will be an ebb phenomenon. The seawater facing away from the moon will also rise due to the centripetal force of the vortex where the earth is located. At this time, the tide at the seaside should also be ebbing. Thus, the degree of merging between the vortexes where the moon is located and the earth determines whether the seawater rises or falls, which can be confirmed by measuring the depth of the seawater. It is certain that the moon is being pushed back by the high expansion compression zone outside the earth's gravitational layer. If the compression force of the vortex where the earth is located is large enough, the moon will be pushed out of the dark matter vortex where it is located by the high expansion zone outside the earth's gravitational layer. In this case, the moon, without the compression of the vortex, enters the expansion compression zone of the vortex where the earth is located, forming the planetary ring, which is the same situation as a star entering a black hole. The sun at the center of the vortex is mainly composed of hydrogen and helium. And helium is produced by hydrogen fusion, which is lighter than the elements of the surrounding planets. Since the density of heavy elements dark matter is large, and the expansion force of dark matter outside the vortex is large, they will not be compressed into the center of the vortex. However, the hydrogen element can enter the center of the solar system vortex and becomes a component of the sun because it has small mass, the density of dark matter is small and the expansion force of dark matter outside the vortex is small. A circular aircraft can be designed according to the principle of quantum entanglement. The aircraft will have its own dark matter vortex. The expansion of dark matter outside the vortex is controlled by increasing or slowing down the vortex rotation speed, so as to realize the lifting and suspension of the aircraft. A circle of small vortex can be set around the aircraft to control the local dark matter expansion on the side of the aircraft to adjust the lateral flight direction. A two-way rotating field needs to be added in the core of the vortex, which requires multi-directionality. It controls nuclear fusion by compressing the core, providing energy for flight. The dark matter above the vortex where the aircraft is located has no obstacles, but the

dark matter between the vortex where the aircraft is located and the ground is blocked by the ground, and so the downward thrust to the aircraft caused by the expansion of dark matter above the vortex is smaller than the upward thrust generated by the expansion of dark matter on the ground, causing the aircraft to rise after the spin acceleration of the vortex where it is located in the gravitational layer. When the aircraft passes through the boundary between the gravitational layer and the expansion compression zone, the density of dark matter in the compression expansion zone after expansion allows the aircraft to fly to the compression expansion zone without reducing the spin speed of the vortex. On the contrary, the spin speed of the vortex where the aircraft is located must be appropriately reduced to pass through the boundary. In the expansion compression region, the density of dark matter is small near the gravitational layer and large away from the gravitational layer. The vortex where the aircraft is located will move to the direction of high dark matter density after it accelerates, that is, away from the object in the center of the vortex. As long as the rotation speed of the vortex where the aircraft is located is fast enough, the density of the expanded dark matter outside the vortex will be small enough. In this case, the missile will be ejected away when it approaches the expansion zone outside the vortex where the aircraft is located, just as Mercury moves away from the sun after the perihelion precession. Magnetic levitation uses the principle that two magnetic fields with the same polarity repel each other. Different from the principle of magnetic levitation, in the vortex where the aircraft is located, two magnetic fields with opposite rotating directions are superposed (20), and two different speeds are accelerated at the same time. However, the difference between the two opposite rotational speeds cannot be too large. The levitation height and velocity of the aircraft are proportional to the spin velocity of the vortex. (4-8)

② Universe

As galaxies grow and rotate and compress faster, the rate of expansion of the expansion compression zone inside the galaxy increases. The expansion speed of dark matter between galaxies will also accelerate as the rotation speed of the vortex of galaxies increases. As is observed now, galaxies are moving away from each other faster and faster. Dark matter and matter gathered at its center will be crushed and collapsed to form a black hole. Due to the quantum entanglement, dark matter outside the black hole is highly expanded. When the vortex core of a star is close to the high expansion zone outside gravitational layer of the black hole (21), the expansion force in the high expansion zone outside the stellar gravitational layer increases, and the high expansion zone will increase its expansion force. Under the impression of this force, the star is pushed out of the center of its vortex and enters the high expansion zone of the black hole. Since the expansion zone of the black hole is highly expanded, the nuclei of hydrogen atoms that form stars will be pushed out under the compression of the vortex until they can be compressed into the black hole by the dark matter vortex. The stellar dark matter vortex changes with the dark matter vortex field where the black hole is located. The photon ring (21) at the edge of the black hole is formed by photon accumulation due to the high expansion of dark matter, and where the rotation axis is close to the black hole, a cavity will form. This is the same as the formation principle of the northern and southern polar aurora on the earth. The expansion of dark matter on the earth's rotation axis causes high-energy particles to accumulate so that they cannot enter the center of the rotation axis, forming a cavity and thus forming the ring-shaped aurora. As the galaxy rotates, the dark matter of the entire universe rotates. In this way, dark matter in the center of the universe rotates the fastest, forming a vortex throughout the universe, and matter enters the core to form a central black hole. As the central matter increases, the vortex rotates faster. The higher the rotation

speed of the universe, the greater the compression force inside the vortex and the expansion force. The distribution of galaxies in all directions of the universe is not completely uniform. An equatorial plane and central axis will be formed in the direction of many galaxies. The central axis of the entire cosmic vortex expands under the compression. As the rotation axis expands, the density of the upper and lower part of the vortex decreases, driving galaxies in the interior of the Universe closer to the equatorial plane with a flat shape. However, the dark matter vortex in the whole universe is still in the shape of a sphere. The central axis dark matter of the universe expands under compression. The diameter of expansion increases gradually from the core to the edge, and the density also increases gradually from the core to the edge. Thus, the central axis is an expansion axis. As the rotation speed of the universe increases, the density of the rotation axis will become lower and lower, looking like a hollow (18).

③ Atom

The atomic vortex has the same structure as the celestial vortex. The hydrogen atom is a vortex, and so is the electron. The atomic nucleus is at the center of the vortex, and the electrons rotate with the vortex around the rotation axis. The center of the vortex is the gravitational layer of the nucleus, and the outer side of the gravitational layer is the expansion compression zone, where the electrons are inside and are driven by the dark matter to rotate around the rotation axis of the vortex. The outer part of the gravitational layer of the atomic nucleus is a high expansion compression zone. Therefore, in general, electrons will not be compressed into the atomic nucleus by dark matter, unless the vortex where the atom is located has very high rotation speed, or the electron rotation speed is reduced, and the density of dark matter in the vortex where the electron is located is reduced. Since dark matter is structurally a double helix, there are left-rotating particles and right-rotating particles in the nucleus. The extranuclear electrons are also divided into right-rotating and left-rotating ones. The electron is light, and the expansion force of dark matter outside the vortex where the electron is located will change when the electron spin speed changes. Therefore, the electron orbit is unstable. A vortex can be made. Nuclear fusion can be controlled by controlling the vortex rotation speed. Moreover, nuclear fusion is controlled by a unidirectional rotating magnetic field. Unlike this, the vortex must be controlled by a bidirectional rotating magnetic field with different left and right rotation speed. And the speed difference between the two should not be too large. The compression force is increased by accelerating the vortex rotation speed. Since the core of the vortex formed is expanded, nuclear fusion will be difficult to occur. A bidirectional rotational field is needed to add in the core of the vortex. The bidirectional rotational field must be multi-directional to form a gravitational layer, pulling the vortex core to contract, increasing centripetal pressure, and compressing atomic vortexes with inconsistent rotational directions to form nuclear fusion. When the rotation speed of the external dark matter is less than the rotation speed of the atom, and the rotation speed of the dark matter vortex where the atom is located is reduced due to the effect of the external dark matter. The nucleus at the center of the vortex is reduced by the squeezing force. The repulsive force between particles inside the nucleus will be greater than the compression force of the dark matter vortex, and the internal particles will be ejected by the repulsive force between the particles. This is what we call spontaneous nuclear decay. The neutrons move at high speed to form turbulent vortex when neutrons bombard atomic nuclei at high speed. The two vortexes will form a pulling force, which will pull the atomic vortex to split. Vortexes with opposite direction of rotation will be generated during the motion process of neutron, which is the reason for nuclear fission. This is consistent with the causes of the Hall effect and the anomalous Hall effect. The difference is the

magnitude of the force generated by the vortexes and the consistency of the arrangement of the vortexes generated. Different neutrons move in different directions, resulting in inconsistent vortex arrangements. The arrangement of vortexes generated in the Hall effect and the anomalous Hall effect is relatively consistent. Thus, the arrangement of electrons is consistent.

(II) Time and speed

① Time

Time is positively correlated with the density of dark matter in the gravitational field and the vortex compression force. The slower the time is, the greater the density of the dark matter in the gravitational field at the center of the vortex is. The time of the expansion compression zone of the vortex is faster than that of the gravitational zone. Where there is no matter and dark matter, there is no time. When an object moves faster, part of the impact force will be converted into rotation force, which will accelerate the speed of the vortex where the moving object is located. The volume of the core gravitational layer shrinks as the vortex spin speed increases, which can be understood as the space becomes smaller (17). The effect of linear motion on the speed of time and the contraction of space is far less obvious than the effect of direct acceleration of vortex rotation. Since there is an expansion zone outside the vortex, when the object moves forward at a high speed, the external dark matter will expand, which will form a resistance to the vortex where the moving object is located, so that the front end of the vortex is compressed (22). The spinning speed of moving particles can be properly reduced, which can reduce the external expansion force of the vortex, thereby reducing the resistance to linear motion. Pressure can also be applied to compress the expansion zone outside the vortex to reduce resistance.

② Speed

The quantum entanglement of dark matter is simultaneous, regardless of speed, distance or time. The compression of the gravitational layer and the expansion of the expansion compression zone also occur simultaneously, regardless of speed, distance or the speed of light. The speed of light only indicates the speed of electromagnetic waves. When all matter is compressed in the core of the vortex of the entire universe, the matter in the core will rotate and compress the dark matter vortex to form a singularity. At this time, dark matter and matter together are like a single atomic nucleus. Without the rotation and compression forces of the dark matter vortex, dark matter rises suddenly between particles, causing the particles to repel and separate from each other, which can also be called an explosion. If matter needs to completely separate and explode, it must be in a space without any matter and dark matter. With a certain mass of dark matter, matter rotates at high speed in the form of a vortex until the largest dark matter vortex vanishes after being compressed by the core matter. Only in this way can matter completely explode. Why must it go with dark matter? Matter cannot gather together without the vortex of dark matter. If there is no expansion force among vortexes, there will be no impact force. Without matter spin, dark matter also cannot be compressed into a singularity.

(III) Explanation of the phenomena observed in the experiment

① Gravitational lensing

The expansion coefficient of the expansion zone outside the vortex of a massive object is large. The light from galaxies or celestial bodies near the expansion zone outside galaxies will bend as the space expands, looking like a ring, which is called the Einstein ring. When the light passes through the internal expansion compression zone of the massive vortex, it will rotate along the arc with dark matter and gather in front of the galaxy to form overlapping images of galaxies, which will increase brightness. (10)

② Photoelectric effect

The impact force caused by the high-speed movement of photons accelerates the spin of the electron vortex. The faster the electron vortex spins, the larger the expansion zone outside the vortex. Because the expansion and compression zone of atomic vortexes decreases in density as they approach the atomic nucleus. Driven by the expansion force generated outside the electron, the electron escapes the atomic vortex. Unlike thermal transmission, the photoelectric effect means that extremely fast-spinning photons induce the rotation of dark matter, and heat transfer usually occurs when molecular atoms move at low speed. (11)

③ Parity violation

The dark matter vortex is formed under the impact force, and they rotate left and right, like the mushroom cloud formed by an atomic bomb explosion. If galaxies rotate right, the compression force is larger when the dark matter vortex rotates right, and if galaxies rotate left, the compression force is larger when the dark matter vortex rotates left. Professor Wu Jianxiong's cobalt 60 experiment showed that: when the cobalt-60 atomic vortex rotates to the left and right, more particles produced by decay rotate to the left, which shows that the compression force of the right rotating is greater than that of the left rotating and the rotation is symmetrical. Due to the quantum entanglement between the particles that make up an atom (15-16), there is symmetry in the number of particles rotating right up and down. When the cobalt-60 atom rotates right up, the particles in the nucleus rotate 180° from right to left. At this time, the particles in the nucleus rotate right down. The atomic vortex rotates right. Under this compression force, the particle vortex rotates left. On the contrary, when the atomic vortex rotates left, the particle vortex rotates right under the compression force. At this time, the expansion zone outside the right-rotating part of the particle vortex is subject to the compression force caused by the atomic vortex greater than that of the right-up-rotating part. The expansion force outside the right-rotating particle vortex increases. The ejection force of the right-down-rotating part increases, and the particle ejects the nucleus downward, or the particle is ejected in the left-rotating form. When the particles in the nucleus changes from rotating right down to rotating right up, the right-rotating particle in the nucleus is compressed by the right-rotating atomic vortex, and the left-rotating particle is compressed by the left-rotating atomic vortex. At this time, the compression force caused when particles in the nucleus rotate right up increases, and the expansion force outside the particle vortex decreases. Thus, when the particle changes from rotating right down to rotating right up, the ejection force is reduced, and it is difficult for the particle to eject atoms. (1-2) Thus, the parity violation is caused by the inconsistent compression force when the dark matter vortex rotates left and right. The compression force is inconsistent because the vortex is formed by the impact force. Left rotation and right rotation cannot be called parity symmetry. They can only be regarded as directions changed by rotating 180 degrees. Parity symmetry in the true sense is that particles ejected when atomic vortexes with a right-rotating compression force greater than a left-rotating one and a left-rotating compression force greater than a right-rotating one decay will be symmetric. Under the effect of the symmetry of left and right rotation quantity presented by the quantum entanglement between the particles in the vortex, the repulsion between the particles in the vortex is reduced. Only when the compression force of the left-rotating part is always smaller than that of the right-rotating part, the vortex rotation can be stable. The man-made vortex can only rotate in one direction, because the magnetic field is not spherical and there is no particle in the core to rotate in reverse, so it lacks in reverse rotation. This problem can be resolved by adding a reverse rotation field on the basis of the one-way rotation field.

④ Annihilation

When the particle with a right-rotating compression force greater than the left-rotating one and the particle with a left-rotting compression force greater than the right-rotating one collide and are compressed to form a vortex, the left-rotating and right-rotating compression forces of the combined vortex increase. It is as if two particles are hit by two directions at the same time, and the merged vortex disappears quickly and annihilates. The right-rotating vortex and left-rotating particles are not in the same vortex, but are vortex particles generated in two different rotating galaxies, that is, positive and negative particles. When the smallest positive and negative particles in the universe enter each other's galaxy, their rotational speed will decay, and their left and right rotating speed will be changed, thus becoming antiparticles. For example, after a particle with a greater right-rotating speed than the left-rotating speed enters the vortex of dark matter with a greater left-rotating speed than the right-rotating speed, it will become a particle with a greater left-rotating speed than the right-rotating speed. A few particles collide, annihilate and separate before changing, and finally become the opposite. (12)

⑤ Chemical reaction

Chemical reaction refers to accelerating the rotation of dark matter through various methods. Dark matter accelerates the spin of atoms, and in turn, the atomic vortex spins faster, the compression force increases and the expansion force outside the vortex increases. The atoms expand and separate from each other, then re-collide and combine into molecules, which belongs to low-speed motion. Chemical bonds are partial overlapping when the atomic vortex is compressed by the compression force formed by the dark matter spin at the macroscopic level. Due to the expansion of dark matter outside the overlapping zone, dark matter inside the overlapping zone rotates slower than that outside the overlapping zone. Electrons will not be pushed out by dark matter rotation when they enter the overlapping zone. Thus, atoms do not separate when the compression force of external dark matter is small. When the spin speed of atomic vortex increases, the atomic vortex becomes smaller, the expansion force of dark matter outside the vortex increases, and the repulsive force between atoms increases. When the repulsive force reaches a certain level, the overlapping zone between atoms is separated. At the same time, electrons in the overlapping region are dragged into their respective vortexes.

⑥ Quantum tunneling effect

As the rotation speed of the particle vortex increases, the expansion force outside the particle vortex increases. Thus, particles escape from the potential barrier, or the compression force of the vortex is smaller than the overall repulsion force of the internal particles. In this case, a quantum tunneling effect occurs. For example, when the total repulsive force between particles in the nucleus is greater than the compression force of the dark matter vortex, the particles in the nucleus escape from the center of the vortex. By accelerating the spin of dark matter near the cold metal, the electron vortex in the metal move at a faster rate, increasing the expansion force outside the vortex, so that the electrons can escape from the metal surface. This is called the cold electron emission. (13-14)

⑦ Electromagnetic interaction

The circular motion of electrons drives the rotation of dark matter to form an electric field of vortex with unidirectional helix. The magnetic field is about the rotation of dark matter driven by the spin of matter, and it is a vortex field formed by core rotation. The magnetic field of the dark matter vortex also drives electron spin. Two magnetic fields rotating in the same direction repel each other, and two magnetic fields rotating in opposite directions attract each other. An

elementary particle is structurally a double helix, so the rotating dark matter driven by it also has a double-helix structure. Only magnetic fields rotating in opposite directions can be compressed into a double-helix vortex by the external dark matter vortex field.

⑧ Double-slit interference experiment

Since the dark matter vortex is structurally a double helix and dark matter has quantum entanglement, dark matter expands due to the rotation compression of the vortex without observing the path when particles arrive at the screen through the double slits. This expansion state is a slit, which is split into left and right rotations. The split left-rotating parts and right-rotating parts are split into left-rotating and right-rotating parts respectively. In this way, after the left and right slits overlap, the particle proportion on the screen is shown as follows:

…	1/32 Right		1/16 Left		1/8 Right		1/4 Left/		1/4 Right		1/8 Left		1/16 Right		1/32 Left		1/64 Right	…
…	1/64 Left		1/32 Right		1/16 Left		1/8 Right		1/4 Left		1/4 Right		1/8 Left		1/16 Right		1/32 Left	…
					b		a				a’		b’					
								Left slit		Right slit								

The blue represents left slit, and the red represents right slit. The particles are not waves, but vortexes. The left and right structures expand after the outer part of the dark matter vortex is compressed by rotation, and the particles move with the expansion of dark matter. That is to say, no matter how many slits, they are all caused by the expansion of these two slits. The figure above shows a phenomenon in which the two slits expand, become misaligned and overlap, forming a central slit with a ratio of 1/2 on the screen. The delayed choice experiment sees that two slits appear separately on the two screens. In this case, the two peaks in the middle are both 1/4 when the path screen is not observed. When people observe the particle path with an instrument, dark matter entangles with the human consciousness, and the path returns to its eigenstate. Dark matter is compressed by matter and in an expanded state when people do not observe the particle path. The left and right expansion of dark matter is to offset the pulling force caused when the vortex rotates left and right to keep the dark matter vortex stable. Otherwise, the entire universe can be compressed into a small vortex even if a single particle continuously rotates and pulls. Only when matter enters the vortex can the center of the vortex increase its compressive force. This is true of every vortex of dark matter. The distance between the double slits after expansion is proportional to the rotation speed of the vortex field and the mass of materials at the core of the vortex. In other words, the greater the mass of the matter in the gravitational field, the faster the rotation speed, the higher the density of the dark matter in the gravitational field and the greater the expansion distance between the left-rotating and right-rotating parts of the dark matter. When the screen is split by the left and right slits and the path is not observed, the distance between waves will increase. (3)

Conclusion: Dark matter

If there is no dark matter, the black hole vortex formed at the end of the universe cannot explode no matter how long it rotates and how much it distorts the space. In the endless space, the vortex always exists, so does the compression force on the core. Dark matter and matter are limited. When dark matter is rotated and squeezed to a singularity by core matter, the vortex and the compression force on the core disappear, allowing dark matter between particles to skyrocket. Therefore, dark matter exists, and space is not distorted by matter. However, the universe outside the dark matter vortex where we live cannot be observed with electromagnetic waves, because they can only propagate in dark matter. If there is another universe outside the universe vortex we are in, even if there is a distance of one millimeter between the two, the electromagnetic waves of one side cannot touch the other. Maybe only after we really figure out the quantum entanglement of dark matter can we know what is going on outside the vortex universe we are in.

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