The Mechanism of Matter and Anti-Matter, Dark Matter and Graviton

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December 6, 2023

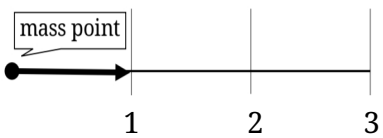
Abstract:

Masses of the six quarks were calculated by layer based on the boson-field theory. Most of the values are close to them of the standard model, however, the values in 4D field are vastly different from them of the model even if the error is taken into account. It suggests that there is something more in 4D field.

The theoretical mass of an up-quark is about three times larger than the actual figure. On the other hand, the actual mass of a down-quark is about two times larger than the theoretical one. This means that the mass of an up-quark may be under pressure to move to the down-quark. According to the boson-field theory, there is the mechanism that makes it possible. That is, dark matters are able to play such a role. In the process, dark matters interact with an anti-neutron or an anti-proton, and a graviton is exchanged between the two darks as well. The mass of ordinary matters continues to move step by step to the dark side in the process. Really, the theoretical sum of an up and a down quark is slightly larger than the actual one. The lack of mass strongly supports the hypothesis.

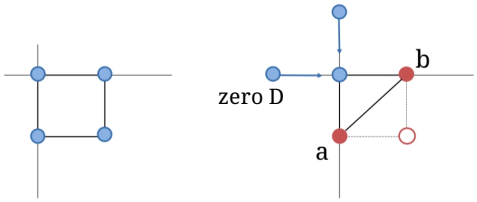
For now, the only place is considered as a black hole where an ordinary and a dark matter can encounter. If the black hole itself does not let its mass from the dark side out, ordinary matters will continue to disappear in the universe.

1. Introduction



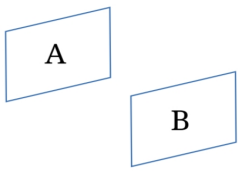
It is defined as "mass=1" that a mass point travels a distance of 1 or a mass point has the energy(vector). For example, if a mass point travels a distance of 2, the mass will become 2. If two mass points travel a distance of 1, the mass will become 2 as well.

A particle with minimum mass is expressed as follows(next page).



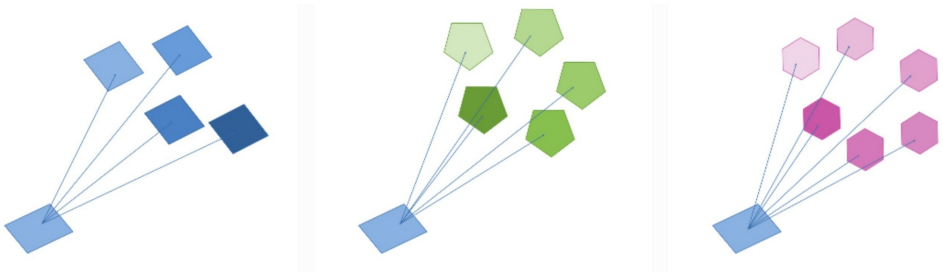
A B

Type A is a generally considered 2D particle. It consists of four 1Ds and the mass is four. In addition, 1D can also be made through crossing two zero-Ds at right angles. The line a·b of type B is made by the sequence and has a half-integer spin value. The mass of the line a·b is $\sqrt{1+1}$, therefore, the mass of the 2D triangle becomes about 3.4. Finally, it is defined the mass of a 2D fermion as any number between 3.4 and 4.



A phase of 3D

The mass of a 3D matter is determined by the probability that three 2Ds exist in different phases at the same time in 3D field. In the picture above, A 2D in a phase is able to have three states, that is, A, B, or AB spin. A 3D field has a total of three phases, then the number of cases becomes 3 to the power of 3(=27).



4^4 5^5 6^6

The number of cases by layer

2. Masses of quarks by layer

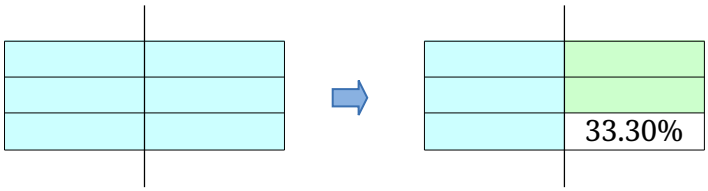
STANDARD MODEL	
QUARK	REST MASS
up	1.8 ~ 3 MeV
charm	1,290 MeV
top	172,440 MeV
down	4.5~ 5.3 MeV
strange	90~ 100 MeV
bottom	4,180 MeV

BOSON-FIELD THEORY		
REST MASS	QUARK	DIMENSION
7.2~ 8.5 MeV	up	4D
1,177~ 1,385 MeV	charm	5D
158,630~ 186,624 MeV	top	6D
1.9 MeV	down	4D»3D
95 MeV	strange	5D»4D
4,375 MeV	bottom	6D»5D

up	(3.4~4) × 4^4÷120=7.2~8.5(average=7.9)
charm	(3.4~4)×5^5÷12×1.33=1,177~1,385(average=1,281)
top	(3.4~4)×6^6=158,630~186,624(average=172,627)
down	1.4×3^3÷20=1.9
strange	1.4×4^4÷5×1.33=95
bottom	1.4×5^5=4,375

Culculations

The value of "1.33" in the charm and strange has been multiplied and corrected because 5D is about 33% more symmetrical than the others. It means that charm and strange quarks become about 33% heavier than the default in 5D.

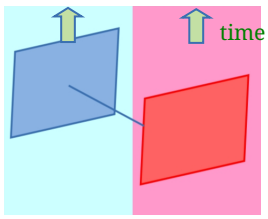


The values of "120" & "12" in the up and charm have to do with the density of mass in the field. For example, if a field is doubled, the relative mass will be reduced by 50%. It is because fields are waves and it can shrink the distance a mass point travels. The values of "20" & "5" in the down and strange have to do with the density as well.

entanglement system	3D×2×4 ⇨ 4D 4D×2×5 ⇨ 5D 5D×2×6 ⇨ 6D
superposition system	3D×4 ⇨ 4D 4D×5 ⇨ 5D 5D×6 ⇨ 6D

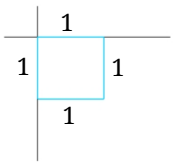
In the entanglement system, if 5D field extends to 6D,
the mass in 5D will become 1/12.
In case of the mass in 4D, it will become 1/12×1/10.
Up, charm, and top quarks are included in the entanglement system.

Down, strange, and bottom quarks are included in the superposition system. They are a distance of one behind the three(up, charm, top).

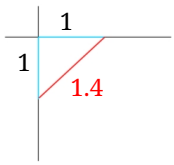


(+) (-)

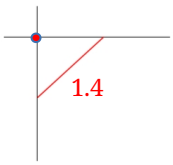
The distance between the two is one.
If the red thing is in an unstable state of time,
it will try to move to the blue field.
That is, the red particle is 1 behind the blue one.



mass=4



mass=3.4

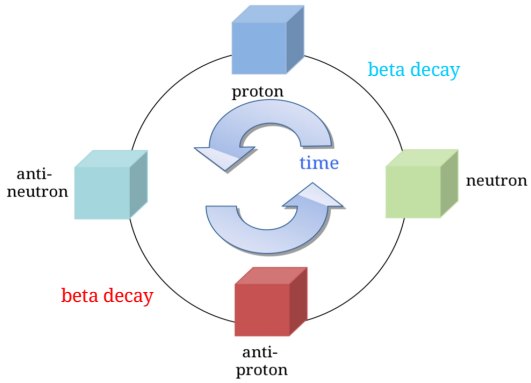


mass=1.4

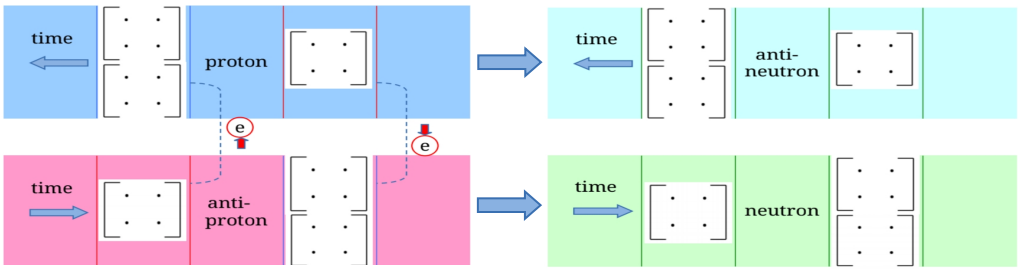
Entanglement system Superposition system

According to the result of calculations, the theoretical mass of up-quark is about three times larger than the actual one. However, the actual mass of down-quark is about 2~2.5 times larger than the theoretical one. It means that the mass of up-quark may have been moved to the down over time in the universe.

3. The circulation system between matter and anti-matter



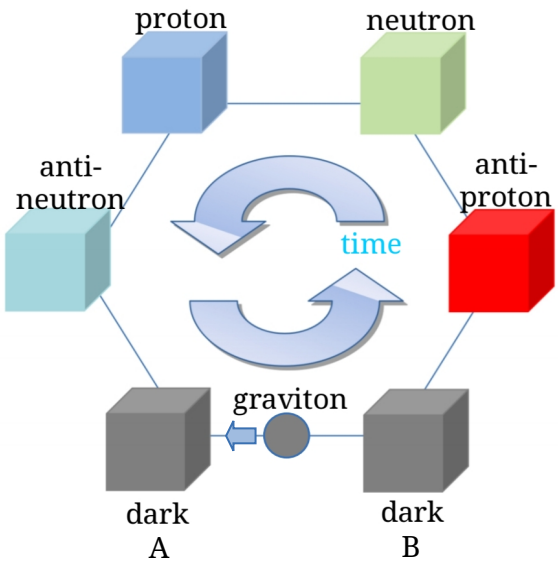
Mass circulation system



A proton and an anti-proton, which time flows in reverse between the two, become an anti-neutron and a neutron each other when they collide.

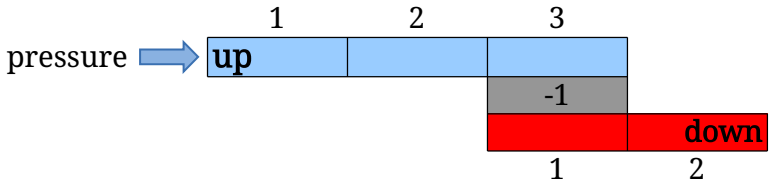
The mass of one being three times less than another means that the mass point retreats three times from its original location. That is, something is located in the place being three times as far away. It is dark matter.(next page)

4. Dark matter and graviton



The mechanism of matter and anti-matter, dark matter and graviton

A mass point moves from the proton to the dark B. The distance is three. Then a graviton moves to the dark A. The distance is -1. Now the mass point moves to the anti-proton. The distance is two.



Through introducing dark matter, it is effectively explained that the theoretical figure is about three times larger than the actual one in up-quark, and that the actual figure is about two times larger than the theoretical one in down-quark.(According to the distance between the two darks, the figure toward down-quark is able to be larger than two.)

References

: 3D Space Bosons in Their Symmetrical 5D Field [and General Relativity]
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