Journal of Space Exploration

ISSN: 2319-9822

Hypothesis | Vol 11 Iss 2

Dark Matter Effects

Shriprakash V. Pendse*

Mumbai University, Ramdas Road, Mulund East, Mumbai, India

***Corresponding author:** Shriprakash V. Pendse, Mumbai University, Ramdas Road, Mulund East, Mumbai, India, E- Mail: svpendse1234@rediffmail.com

Received: February 2, 2022, Manuscript No. tsse-21-27359; **Editor assigned:** February 4, 2022, PreQC No. tsse-21-27359 (PQ); **Reviewed:** February 15, 2022, QC No. tsse-21-27359 (Q); **Revised:** February 17, 2022, Manuscript No. tsse-21-27359 (R); **Published date**: February 25, 2022, DOI: 10.37532/2319-9822.2022.11(2).201

Abstract

Dark matter effect on galaxies, uncertainty at singularity, quantum geometry leads to Pauli exclusion principal, exact derivation of gravity and exact Coulomb force equation in terms of dark matter so force strength can be compared exactly. How dark matter creates capillary fields in matter and antimatter particle like forward and reverse bias. Quantum mechanical property SPIN is associated with gravity/anti-gravity. Neutrino may have zig zag time arrow. As dark matter will be electrically and gravitationally neutral, dark matter particle will not have spin, so Higgs boson can be dark matter particle.

Keywords: General theory of dark matter; Special theory of relativity; Gravitational law

Effect of dark matter on cosmic structures

Dark matter is forming cone like structure. Model is Mery go round of children center shaft taking load of trollies. If is like spinning top. So dark matter density is highest at center of galaxy. Hence at center of galaxy you always get singularity. This singularity is due to high mass density. Dark matter through elasticity acts like shock absorber.

Now uncertainty principal is:

$$\Delta X \, \Delta p \geq \frac{4}{4\pi}$$

$$\Delta X \, \Delta m \, \Delta V \geq \frac{4}{4\pi}$$

$$\Delta X \, \Delta m \, \frac{\Delta X}{\Delta T} \geq \frac{4}{4\pi}$$

$$\frac{h}{4\pi} \Delta x^2 \Delta m \geq \Delta T$$

$$\pi \Delta x^2 = \Delta A$$

$$\frac{h}{4\pi} \Delta A \, \Delta m \geq \Delta T \qquad (1)$$

Now at center of singularity $T = 0$

Citation: Pendse S. V. Dark Matter Effects. J. Space Explor. 2021;11(2):201.

©2022 Trade Science Inc.

Which can be said as equation 2 and same way Dirac model in sea of positive time –ve hole can be formed fill by Δ m creating repulsive gravity?

Black hole will have repulsive gravity will make it star.
Singularity → star → singularity

↓

Some mass

converted in energy

This cycle will stop when mass of black hole reduces beyond critical mass. So in end singularity will end as super nova. In early universe gravity was weak, so many stars became black hole and absorbed another star, as repulsive gravity sets in star emits star. But at time gravity has become stronger so absorbing star maintains pull on star, creating binary star. Hence 85% of stars are binary. If big bang created uniform mass and energy density it is unexplainable. Now when observed, but when black hole star converts in star it will be in cloud of gases. So, from Earth. We may perceive new star is burned. Buy if may be old black hole becoming star.

Now fundamental particles have two types of capillaries.
I-Shape-bosons

V-Shape-fermions

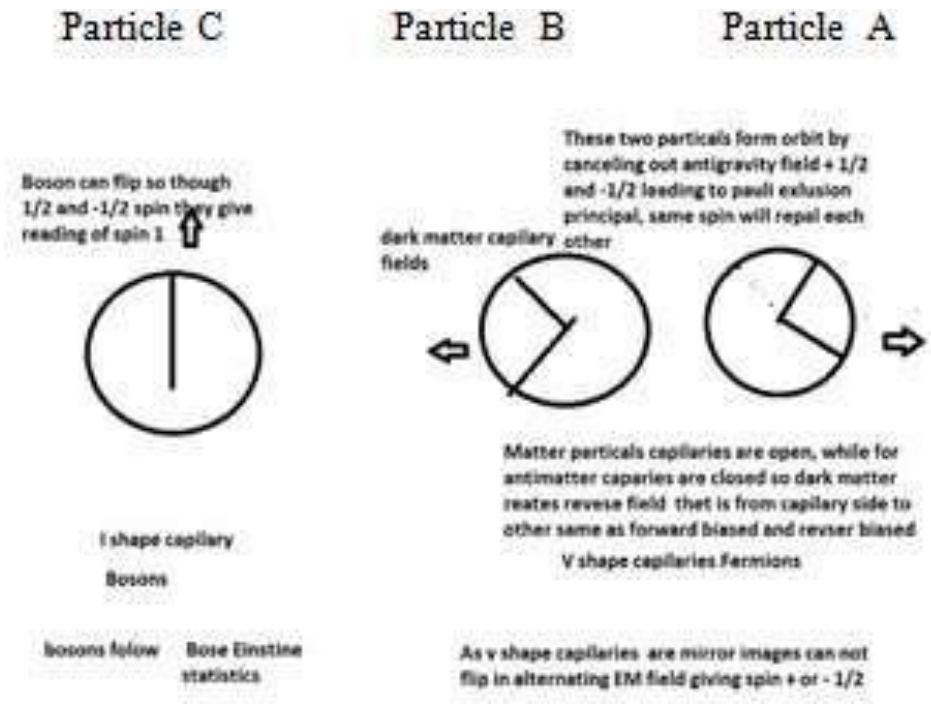

FIG.1. Electromagnetic field particles.

Now in alternating electromagnetic field particle C can flip [1], so giving spins 1 reading. Particle A and B cannot swap as they are mirror image. So particle A and B can create orbital with ½ and -½ spin. But it particle A and similar capillary particle will repeat. So I shape capillary particles are bosons and V-shape capillary particles are fermions. That is reason fermions follow Pauli's principal and bosons follow Bose Einstein statistics. Particles A and B will swing differently in alternating electro majestic field. So Paul's exclusion principal is due to antigravity field. SPIN is property associated with antigravity. In the case of antimatter fundamental particle capillaries are closed so dark matter creates reverse field same as forward biased and reverse biased, so fundamental matter particles and antimatter particles acts like PN junction for dark matter **FIG. 1**.

Antigravity and gravity are having vector fields. Repulsive gravity has 4 rector fields. Right-left-up-downPrincipal time arrow.

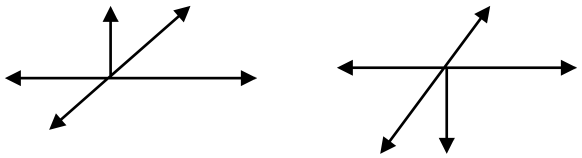

FIG.2. **Antigravity and gravity are having vector fields.**

So you rotate any Left, right, up and down axis by 90 degrees you get principal time arrow and in GR (2), We have imaginary time. So GR itself says mass is image on universe movie **FIG. 2** [2].

$$F = G\frac{M_1 M_2}{S^2} G = \frac{C^4}{K}$$

Now let us derive relativistic force equation through above principal.

Now M_2 is particle which will also attract M_1. We have neglected M_2 effect as

$$M_1 >>> M_2$$

Now for M_2, we have to consider M_1 gravitational potential
M_1 gravitational potential will,

$$G\frac{M_1}{s}$$

so for M_2 it will here we are considering M_1 only and M_2 is already there.

$$(G\frac{M_1}{s}) = +G\frac{M_1}{s}$$

If is M_1 individual contribution

Now M_2 also experience gravitational pull on M_1 so total force

$$F \text{ Total=G}\frac{M_1 M_2}{S^2} + X\ G\frac{M_1 M_2}{S^2}$$

x is multiplayer. In case of potential energy of charges is $E = RXQ$ so I use x

$$F\ Total = G\frac{M_1 M_2}{S^2}(1+X)$$

x is additional virtual, mass effect so if is reverse engineering Now

$$PE = \frac{GXM_1}{S}(1+\text{Only M}_1\ \text{Contribution})$$

$$\text{virtual mass=}\frac{GXM_1}{SC^2} = X$$

So

$$E = MC^2$$

So as we have four dimensions total virtual mass will be 4 times single virtual mass

$$F \text{ Total=G}\frac{M_1 M_2}{S^2}(1+\frac{4GM_1}{SC^2})$$

$$F \text{ Total=G}\frac{M_1M_2}{S^2}+4\frac{G^2M_1^2M_2}{S^3C^2}$$

So we get relativistic force equation by consider potential energy of individual,

$$F \text{ Total=G}\frac{M_1M_2}{S^2}+4\frac{G^2M_1^2M_2}{S^3C^2}$$

Now if string theory 36 dimensions multiplier will be 36 so gravity will be 36 times stronger
Now replacing

$$M_1=\frac{RQ_1}{C^2} \quad M_2=\frac{RQ_2}{C^2} \quad (C \text{ Square})$$

$$\text{Electrostatic=G}\frac{\frac{RQ_1}{C^2}\frac{RQ_1}{C^2}}{S^2}+4G^2\frac{\frac{R^2Q_1^2}{C^4}\frac{RQ_2}{C^2}}{S^3C^2}$$

$$\text{Electrostatic=-}\frac{R^2}{C^4}\text{G}\frac{Q_1Q_2}{S^2}+4\frac{G^2R^3Q_1^2Q_2}{C^8S^3}$$

Now $G=-\frac{C^4}{K}$ for electrostatic

$$=-\frac{C^4}{K}x\frac{R^2}{C^4}\frac{Q_1Q_2}{S^2}+T$$

T in limiting case, as charge value do not goes to cosmic mass scale like mass of sun etc.

$$\text{Electrostatic}=-\frac{R^2}{K}\frac{Q_1Q_2}{S^2}$$

Now term T

$$T=\frac{4G^2R^3Q_1^2Q_2}{C^8S^3}$$

$$G=\frac{C^4}{K}$$

$$T=-\frac{4C^8R^3Q_1^2Q_2}{K^2C^8S^3}$$

C cancels out

$$T=-\frac{4R^3Q_1^2Q_2}{K^2S^3}$$

considering K value in limiting case

$T\cong 0$ approx.

But for getting exact value ratio of coulomb constant to gravitational constant can be used. even in string theory 36 dimensions, hierarchy will not change as multiplying factor will be 36

SPACE=Minkovski space+dark matter with K and-K elasticity+fine tubular structure of quantum level.

Now repulsive gravity is not violating weak equivalence principal.

$$mg = ma$$

for -g, T is -ve so for -g, -mg=-ma

Also second law of thermodynamic is not violated also spring do not violate and physical law.

Dark matter properties

Dark matter is electrically neutral and gravitationally neutral If interacts through physical phenomenal like capillary action surface tension. Because it is gravitationally neutral action, So detecting dark matter problem is similar to U 235 and U 238 separation. As both in chemical reaction behave similar only way is physical i.e. centrifuge or osmosis. As spin is property associated with gravity, so dark matter particle will have zero spin. There is only particle i.e. Higgs Boson. Higgs boson itself can be dark particle [3-5].

Zig-Zag time arrow concept

If watch is such way that short hand jumps by 2 hrs and reverses by 1 hr, if still complete dial in one round. If short hand jumps 3 hrs forward and 1 hr back ward, if will take 3-1 round to couple dial. So for T forward and f backward, watch will require T-f rounds to complete one circle This apples for 3 hr backward 1 hr forward, if will take i.e. 3-1=2 round to complete clock so such zig-zag time arrow is possible now if particles in such arrow and oscillates if property like mass, then on forward time arrow we will see if changing property after traveling distance so neutrino can be such particles as neutrino change color on that time arrow neutrinos are continuously changing color but from forward time arrow we will see oscillations so tau, electron, mu neutrinosmay be same. Also such particles will not have antiparticles by neutrino size, They are on bounda

$$\frac{h}{4\pi}$$

So neutrino may have three gravitational stats, gravity, zero gravity and Antigravity.

So neutrino may be oscillating of dark matter antimatter, matter so neutrino can be dark matter part particle.Also neutrino may not obey for combined oscillation

$$M = \frac{M \text{ rest}}{\sqrt{1-\frac{V^2}{C^2}}}$$

So dark matter there are two candidates:

- Higgs Boson
- Neutrino (part)

Zig-zag time arrow is rare as any physical, chemical process takes least path.
cosmic movie explains history and future:

Cosmology is process of sequence of events and causes.

Causes → events=A

events A become new cause leading to event B

cause → event → cause → event so for full cosmic movie

$$\text{Information}=\sum_{T=0}^{heat\ death} All\ events + \sum_{T=heat\ death}^{new\ big\ bang} All\ events$$

So cosmology is nothing but data pre-recorded sequence of cause and

events.

RESULTS

- Dark matter explains cosmic structure stability
- Dark matter density is highest at center of galaxy
- At center of galaxy singularity exists due to high mass density
- At singularity center uncertainty principal creates repulsive gravity
- Exact coulomb law will have two terms
- SPIN is property associated with anti-gravity leads to Pauli exclusion principal
- Anti-gravity is four vector field
- Cosmology can be explained as sum of events
- High number of binary stars cannot be explained if big bang created uniform mass and energy density
- Fundamental particle has quantum geometry

REFERNCES

1. Glassho S, Subject Grouping: Physics. *Cerncourier.* 2020;4-27.
2. Weinberg S, The Making of the Standard Model. Standard Model, *CERN Document Server.*2003; 202(181):2-9.
3. Salam A, Standard Model: Particle Exchange. 1963;5-6.
4. Einstein A, General Relativity, first effort to integrate gravity and electromagnetism. 1905; 27.
5. Hook R, Hooks Law of elasticity. 1660;8-32.