

BOTH NEWTON & EINSTEIN ARE WRONG

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Preface

This paper proves that Newton's inertial frame concept & Special theory of relativity of Einstein are both wrong & requires some improvement. Author thinks that world is the war of fields & interaction of small fields (particles) with big field like earth field create the world. This interaction creates the events & actions in the world.

- 1) This theory solves the problem of dark energy & dark matter.
- 2) This can solve the problem of dual nature of particle.
- 3) This gives answer for mass less photon.
- 4) This gives answer to difference between space & vacuum.

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.1. Newton & Einstein are wrong

Newton's inertial frame concept is wrong. Each inertial frame observer finds the different results of the similar events.

Consider that one same event happen at two places. One is happen in the train cabin & other happen on the platform. Observer is the same & that is present in the train cabin.

Event: - Old man pushes the cart of mass m from its rest position to velocity V1 in direction of train velocity. This event happen in the train & same event happen on the platform. Velocity of train is -V2 then energy consumed by old man observed by observer in the train cabin will be

For Event in the train cabin observer by observer in the cabin:-

Energy consumed by old man = Kinetic energy after – Kinetic energy before Energy consumed by old man = $0.5 \text{ m V}1^2 - 0 = 0.5 \text{ m V}1^2$ -----(1) For Event on platform observer by observer in cabin:-

Energy consumed by old man = $0.5 \text{ m } (V2+V1)^2 - 0.5 \text{ m } V2^2$ = $0.5 \text{ m } (2 \text{ V1 } V2+V1)^2 - \cdots (2)$

As, both events are same. Old man in the cabin or on the platform will consume the same energy but same observer will find that energy consumed by old man is different.

Similarly, if the event happen on the platform & observed by two observers, one on the platform & other in the train moving with some constant velocity will find the same thing.

i.e. Energy consumed by old man is different.

This is against the consistency of energy.

Energy consumed by old man must be same.

Mean's, every inertial observer do not observe the real physical quantity. Only, one of the frames is the true frame.

This problem can be solved by making simple correction in the inertial frame concept.

That will be discussed in next chapter.

Special theory of relativity is also wrong:

FORCES IN SPECIAL THEORY OF RELATIVITY MAKE SPECIAL THEORY OF RELATIVITY WRONG

CALCULATION 1:- FORCE WITHOUT ACCELERATION, ACCELERATION
WITHOUT FORCE & APPLIED FORCE IS LESS THAN ACTING FORCE IN
SPECIAL THEORY OF RELATIVITY.

STEP 1:-This problem can easily be understood by following paradox.

{Before starting this paradox, I want to put one relativity formula's given in standard book of relativity for example "Page no. 135 of Elements of special relativity" by Dr T.M. Karade, Dr K S Adhav & Dr Maya S Bendre.

In any frame, for force in X-direction by S.R.

$$Fx = d/dt(y. mo. ux)$$
 where $y=(1-u^2/c^2)^{-0.5}$

So, after differentiation

$$Fx = y. mo. (dux/dt) + y^3. mo. {ux/c^2}. (u. du/dt)$$

Fx= y. mo. ax +
$$y^3$$
. mo. $\{ux/c^2\}$. $(u . a) -----(A)$

We know,
$$u^2=ux^2+uy^2+uz^2$$

So. after differentiation

$$2 u. (du/dt) = 2.ux (dux/dt) + 2.uy (duy/dt) + 2.uz (duz/dt)$$

$$2 \text{ u. a} = 2.\text{ux ax} + 2.\text{uy ay} + 2.\text{uz az}$$

u.
$$a = ux ax + uy ay + uz az$$
 -----(B)

from (A) & (B)

So, Fx=y. mo.
$$ax+y^3$$
 mo. (ux/c^2) (ux ax+uy ay+uz az) ----(1)

Now, Paradox:-

On frictionless platform, object is moving with constant velocity ux in X-direction & only magnetic force is acting in Y-direction & there is **acceleration in Y-direction only with velocity uy** & Fz=0

If we apply eq(1) to this case then result will be

$$Fx = y^3 \text{ mo. } (ux/c^2) \text{ uy ay } ----- \text{ as } ax = 0$$

Or Fx=Fay as this force is form due to 'ay' only

Mean's even there is **no magnetic force** acting on object from outside in x-direction & no 'ax' then also **above force will act on object in +ve direction of x-axis due to 'ay'**Important point (1):-

Mean's <u>applied magnetic force</u> on object in X-direction is 0 & <u>acting force</u> in X-direction is $Fx = y^3$ mo. (ux/c^2) uy ay+0 or Fay+0=Fay

STEP 2:-Now, Force acting in X-direction is $Fx = y^3$ mo. (ux/c^2) uy ay or Fay

Now, after this happen, very small magnetic force of same intensity

-fx = -y 3 mo. (ux/c 2) uy ay or -Fay start acting on object in direction opposite to above force (but velocity is still positive ux) & cancel that above force.

Mean's equation (1) becomes

0=y. mo. $ax+y^3$ mo. (ux/c^2) (ux ax+uy ay)

Or 0 = y. mo ax. $(1 + y^2 \{ux^2/c^2\}) + Fay$

(Here as Fay= y^3 mo. (ux/ c^2) uy ay)

Mean's Fay = y. mo. -ax. $(1 + y^2. \{ux^2/c^2\})$

Mean's there must be acceleration in -ve X-direction to fulfill above equation of S.R.

Now, see above equation carefully, it is of nature

$$0 = -fx + Fay$$

Important point (2):- Mean's <u>applied magnetic force</u> on object in X-direction is -fx & <u>acting force</u> in X-direction is -fx + Fay = 0 or 0.

Here, resultant force in X-direction is zero but there is acceleration.

STEP3:- same things happen for +ve force in X-direction (for less than Fay or more)

Now, I am generalizing above result.

Step 1 & 2 clearly shows that when we apply any magnetic force (Fmx) in X-direction on the object, actual force acting on object is more & that quantity is (Fmx+Fay) Similarly,

If we apply any magnetic force (Fmy) in Y-direction on the object then actual force acting on object is more & that quantity is (Fmy+Fax)

This is completely complicated results, which says that applied force & acting forces on objects are different & more in S.R.

STEP4:- Force does work, consume energy, gain energy & we must know that energy cannot be created. It can be transferred only:-

From above setup it must be clear that energy get transfer from magnet to object but if applied force is less than acting force then energy gain by object will be more than energy loose by the magnet. Means due to more work done by more force for same displacement, more energy get generated.

HERE, more energy (& force) is the problem.

Where this additional energy (or force) does comes from?

There is no answer in S.R. for this problem.

THIS MATHEMATICS PROVES THAT THE S.R. IS COMPLETELY WRONG:-

In S.R., force is not related to <u>change in the state of motion</u> or acceleration as Newton consider but with change in moment.

So, even I move towards falling ball & not applied any force,

 $fx = y^3$ mo. (ux/c^2) uy ay ----- this force will act on the ball.

& Direction of applied force is different than acting force.

If this mathematics is true then if old man pulls the cart on horizontal platform with force f and fx, fy are their components in X & Y direction respectively

Then above calculation says that actual forces acting on the cart are not fx, fy but

$$Fx=fx+ y^3$$
 mo. (ux/c^2) uy ay = fx +Fmay

& Fy=fy+
$$y^3$$
 mo. (uy/ c^2) ux ax = fy +Fmax

This will create further problem because if F is actual force acting on the cart then

$$F^2 = Fx^2 + Fy^2$$

$$F=(fx^2+fy^2+Fmax^2+Fmay^2+2.fx. Fmay + 2.fy. Fmax)^{0.5}$$

$$F=(f^2+Fma^2+2.fx. Fmay + 2.fy. Fmax)^{0.5}$$

So, here actual force acting cannot be equated to the sum of resultant force applied by old man i.e. f & resultant of additional force created by Fmay & Fmax.

CALCULATION 2:- Relativity is so wrong. It can be proves that there can be acceleration without force again. (Similar to calculation 1 result)

Example is given below

In prime frame, if Fz = 0 & ratio Fx/Fy is equal to $(v/c^2 \cdot Uy)/(1-V \cdot Ux/c^2)$ then after transformation in S' frame F'x becomes F'x = 0 because $F'x = Fx - (v/c^2 \cdot Fy \cdot Uy)/(1-V \cdot Ux/c^2)$ ----transformation equation in relativity

<u>In frame S:-</u> Now, just consider that on one magnetic substance on frictionless platform magnetic forces are acting in X-direction & in Y-direction. Magnetic force Fx is so adjusted by software program that ratio Fx/Fy is always equal to $(v/c^2 \cdot Uy)/(1-V \cdot Ux/c^2)$.

Then, Forces Fx (very small) & Fy in this frame will create acceleration ax & ay in direction x & y.

Observer frame S' is moving with velocity V with relative to frame S then in frame S':-

There is acceleration in X' direction because $ax' = ax/\{r^3. (1-ux. v/c^2)^3\}$ where $r = 1/(1-v^2/c^2)^{0.5}$ but there is no force in X'- direction because as $F'x = Fx - (v/c^2. Fy. Uy)/(1-V.Ux/c^2)$ & as $Fx/Fy = (v/c^2. Uy)/(1-V.Ux/c^2)$ So. F'x = 0

Means, in this case in frame S' there is acceleration in X'-direction but no force is present in X'-direction.

Means, some ghost force will accelerate substance in direction X' in frame S'. Can you call this as physics?

CALCULATION 3:- MATHEMATICS WHICH PROVES THAT CONSUMPTION OF ENERGY IN DOING WORK DECREASES AS RELATIVE FRAME VELOCITY INCREASES:-

$$F_x' = F_x - \frac{\frac{V}{c^2} (F_y v_y + F_z v_z)}{1 - \frac{V v_x}{c^2}}$$

$$F_y' = \frac{F_y}{\gamma \left(1 - \frac{V v_x}{c^2}\right)}$$

$$F_z' = \frac{F_z}{\gamma \left(1 - \frac{V v_x}{c^2}\right)}.$$

ARE TRANSFORMATION EQUATIONS OF FORCES IN S.R.

Let consider that old man A pull the cart B from pole 1 to Pole 2 on platform by standing at pole

2 with rope of length AB. Observers are on platform & in the train moving with velocity V then

1) When AB (displacement) parallel to the direction of train velocity.

Then, for observer on platform:-

so,
$$Fy = Fz = 0$$
, $dx = L(AB) = length of rope which has to be pulled$

Fx= tension in rope

& Work done
$$W = Fx \cdot dx - - - (1)$$

for observer on train:-

$$F'x = Fx - (\ v/c^2 \ . \ Fy. \ Uy)/(1-V \ .Ux/c^2) = Fx \ as \ Fy = 0 \quad by \ force \ transformation \ equation \ of \\ S.R..$$

Here, as one meter in X- direction in S-frame is equal to $1/\gamma$ meter in S'- frame in X-direction

&
$$dx' = L(AB)' = dx/\gamma$$
 where $\gamma = (1-V^2/C^2)^{-0.5}$

So,
$$W' = F'x$$
 . $dx' = Fx$. $dx/\gamma = W/\gamma$

So,
$$W' = W/\gamma$$

Case 2:- When AB perpendicular to velocity of train

for observer on platform :-

$$Fx = Fz = 0$$
 $dy = L(AB)$ & $dx = 0$

Fy= tension in rope

Work done
$$W = Fy$$
. dy

for observer in train :-

$$F'y = (Fy/\gamma) / (1-V .Ux/c^2) = Fy/\gamma$$
 as $Ux=0$

& dy'=dy as it is perpendicular to V & dx' = $dx/\gamma = 0$

Work done
$$W' = F'y$$
. $dy' = (Fy/\gamma)$. $dy = W/\gamma$

$$W' = W/\gamma$$

Case 3:-Consider that old man pull the cart on platform from pole 1 to pole 2 in any direction

Fx, Fy, dx, dy are tensional forces & rope get pulled on the platform in X & Y direction then

For observer on platform:-

Work done W = Fx.dx + Fy dy

For observer in train :-

$$F'x = Fx - (v/c^2 \cdot Fy \cdot Uy)/(1-V \cdot Ux/c^2)$$

 $F'y = (Fy/\gamma)/(1-V)Ux/c^2$ -----from transformation equation.

$$W' = F'x.dx' + F'y dy'$$

$$W' = \{Fx - (v/c^2 \cdot Fy \cdot Uy)/(1-V \cdot Ux/c^2)\} \cdot dx' + \{(Fy/\gamma)/(1-V \cdot Ux/c^2)\} \cdot dy'$$

Here, as one meter in X- direction in S-frame is equal to $1/\gamma$ meter in S'- frame in X-direction

So,
$$dx' = dx / \gamma \& dy' = dy \&$$

If
$$m = (1-V .Ux/c^2)$$
 then

$$W' = (1/[m.\,\gamma]) . \{Fx . dx - (Fx.\,V/c^2 \,.\, Ux.\, dx) - (Fy.\,v/c^2 \,.\, Uy.\, dx) + Fy. dy\}$$

W'=
$$(1/[m. \gamma])$$
.{Fx.dx $(1-V.Ux/c^2)$ + Fy. $(dy - v/c^2.Uy.dx)$ }

$$W' {=} (1/[m.~\gamma]) \ .\{Fx \ .dx (1{\text -}V \ .Ux/c^2) + Fy \ .\ dt \ (Uy \ -\ v/c^2 \ .\ Uy.\ Ux)\ \}$$

$$W' {=} (1/[m.~\gamma]) \ . \{Fx \ . dx. (1{-}V \ . Ux/c^2) + Fy \ . \ dt \ . Uy. \ (1{-}V \ . Ux/c^2) \ \}$$

$$W'=(m/[m. \gamma]) .\{Fx .dx+Fy . dt .Uy\}$$

$$W'=(m/[m.y]) . \{Fx . dx + Fy . dy\}$$

$$W'=1/\gamma.\{Fx.dx+Fy.dy\} = 1/\gamma.W$$

Or W'= W/
$$\gamma$$

This clear shows that in all cases $W' = W/\gamma$

Means'
$$dE' = dE/\gamma$$

This shows that as velocity V increases, energy consume in doing work decreases. This is against relativity because by mass & energy equivalence, energy has to be increase as mass increases.

We know that the definition of energy is the capacity of doing work. This proves that capacity of space holding energy decreases as frame velocity increases.

This happens because Force perpendicular to V decreases & space get contracted in direction of V.

These calculations 1,2 & 3 shows that special theory of relativity is wrong. In coming chapter, I discuss about other problems of special theory of relativity.

.2. Space & vacuum are different & space create the reference frame

One day, Author was writing something on paper & he got this idea. Can we write something in vacuum? No, we cannot write anything in vacuum because vacuum has no meaning. We require some paper to write. Similarly, this world is also very beautiful story written on paper called space & cannot be written in vacuum.

Means, space is different than vacuum then one question arises. What is the space?

Same problem is arises when I proved that special theory is mathematically wrong .

If Special theory of relativity is wrong then velocity of light will not be same with different observer then how will we satisfy Maxwell wave equation by alternative mathematics & Mickelson-Morley experiment, which prove that velocity of light is constant in all direction on earth.

This all problems can be solved by the simple way. For example, Electron in the Atom of substance always expresses our velocity with relative to electromagnetic flux of atom acting on it. Whatever may the velocity of substance be with related to anybody. Velocity of electron around nucleus remains same until exited.

This is true for Photon also, when Photon is in glass substance, it express our velocity with related to electromagnetic flux of glass (combine balance fields of all particles of glass). So, glass may have any velocity with related to other substance but this velocity of photon with relative to glass remains same in all direction inside the glass.

Same thing happen on earth, just consider only negative charge of electrons of earth then very high –ve electrical flux is present around it. This flux is balance by +ve protons flux & resultant is balancing of opposite flux. This balance electromagnetic flux & gravity is present all around Earth. This creates local space for substances & particles on earth. All elementary particles & photon express our velocity with related to this flux. This is reason for getting velocity of light C on earth in all direction. This is not due to SR but due to property of photon & local space.

I said that electromagnetic flux around big mass creates space. One may asked that can we calculate it around earth. I can prove that this is possible.

for example at 100000 km from earth

I have done some calculation

No of protons on earth = $5.92 \times 10^{24} = 3.53935 \times 10^{51} \text{ Nos}$ 1.67262×10^{-27}

(considering neutron also can be split in to proton & electron pair)

+ve Charge on earth due to protons = $3.53935 \times 10^{51} \times 1.6 \times 10^{-19}$

$$= 5.66297 \times 10^{32}$$
 Coulombs

Attraction force on ball caring one coulomb of -ve charge at distance of 100000 km from earth

=8990000000 x 5.66297 x 10³²

100000000 x100000000

 $=5.09101 \times 10^{26} \text{ N}$

This calculation shows that even at the distance of 100000 km earth's only proton applies **very powerful attractive charge force** but this force is balance by force applied by total electrons on earth in opposite direction.

Means, very powerful balance electromagnetic flux is present around earth at very very long distance also.

This balance electromagnetic charge flux at long distance must caries gravity.

This create the effect of partial dark matter (additional gravity due to space)

Electron space & earth space are equivalent :-

Nuclear space

1) Electron in the Atom of substance always expresses our velocity with relative to electromagnetic flux of atom acting on it. Whatever may the velocity of substance be with related to anybody. Velocity of electron around nucleus remains same until exited.

Earth space

1) Same thing happen on earth, just consider only negative charge of electrons of earth then very high -ve electrical flux is present around it. This flux is balance by +ve protons flux & resultant is balancing of opposite flux. This balance electromagnetic flux & gravity is present all around Earth. This creates local space for substances & particles on earth. All elementary particles & photon express our velocity with related to this flux. This is reason for getting velocity of light C on earth in all direction.

One of my friend said that he is in train moving

with velocity V then what will be velocity of photon with related to me in the train? I said according to my theory of local space, velocity photon in all direction will be C because Photon is so sensitive that if you want to find its velocity with instrument, it express our velocity with related to balance electromagnetic flux present around measuring instrument.

So, whenever there is photon or light near to you its velocity with related to you or measuring instrument will be same in all direction i.e. C.

This is simple solution which satisfies both above problems. Not require Special theory of relativity but just local space theory.

This concept of local space is not new; actually we are using it every day. For example, for calculation of kinetic energy or velocity for substance on earth, we do not fixed reference frame on moon but fixed on earth surface. Velocity of free electron in metal is measure with related to metal frame of reference & velocity of electron in atom is considered with related to atom frame of reference. Mean's actually, we use this local space theory every day knowing or unknowingly.

Around every substance, this local space is present. This substance may be atom, glass, train, earth or star.

I was writing something on paper. I got this idea. We cannot write anything in vacuum. We require some paper. Same is with the world. We require some frame to express our activity. For all elementary particles, this paper is balance or unbalance field acting on it.

This simple thought create concept of space. Space is created by substance. For example, atomic space is created by the charge flux of the atom; intra molecular space in the glass is created by collective balance flux of all electrons & protons of the complete substance & their gravitational flux. Space around earth is created by balance flux of all electrons & protons of the complete

earth with its gravity. (As next chapter is consider, it is due to collective flux of +ve & -ve energetic particles in matter which will be very powerful than this)

This concept of space solves lot off problems in physics:-

1) Mickelson-Morley experiment find that velocity of light is constant in all direction on earth surface.

Answer: - Photon on earth surface expresses our velocity or kinetic energy with related to the local space of earth created by electromagnetic flux of all particles of earth & gravity of earth. So, photon velocity is same in all direction on earth surface.

2) Is this theory satisfying Maxwell wave equation?

Answer:- Yes, this theory satisfy Maxwell wave equation for example one of my friend ask me that he is in train moving with velocity V then what will be velocity of photon with related to me in train?. I said according to my theory of local space, velocity of photon in all direction will be C because Photon is so sensitive that if you want to find its velocity with instrument, it express our velocity with related to balance electromagnetic flux present around measuring instrument. So, Maxwell equation

$$\frac{d^{2}E}{dx^{2}} - \frac{1}{c^{2}}\frac{d^{2}E}{dt^{2}} = 0$$

is always true in local space. As velocity of photon is always C in this local space or local frame of reference in all direction. So, any instrument will always measure velocity of light as C & this equation is always remaining true in local space.

3) Refer chapter 4in this paper i.e.

"RELATIVE VELOCITY MAY BE MORE THAN VELOCITY OF LIGHT". In this chapter, Author proved that velocity of stars from west to east is more than C for frame fixed on earth due to its angular velocity of earth.

Answer:-As per my local theory of relativity is consider, this velocity is apparent velocity. This is because stars are not present in local space of earth. So, we can get different apparent velocities for many different stars or planets for frame fixed on earth but all velocities are apparent velocities.

These apparent velocities have no meaning in physic.

- 4) Distant galaxies are moving away from us with velocity more than C.

 Answer:- This is also apparent velocity & not velocity in local space. So, this is meaningless velocity. This has no physical or scientific meaning.
- Answer:- As local space of earth is created by electromagnetic flux & gravity of earth, this flux definitely have effect on properties of space like

5) Clock on earth move slower than GPS satellite clock.

time. It is slow down when this flux is more. So, clock on earth surface move slowly than clock on satellite.

What is dark matter?

Abstract: - Space carries gravity.

When you are going deep inside earth, you will find that gravity of earth decreases. This is because some matter of earth pulls you in opposite direction. Near to the core of earth this gravity will be very less.

electromagnetic flux is present which create local space to that matter. This (balance electromagnetic flux) space also carries mass & gravity. For example, total earth gravity is not due substance on earth but also due to balance electromagnetic flux or local space around earth. So, when you are on earth, you will not fill total gravity of earth as some additional local space of earth is above you. When you move away from earth, gravity decreases as distance of solid earth from you increases but additional local space near to earth applies small additional gravity on you. When you are far away from earth, total gravity act on you is the total gravity of solid earth plus gravity due to local space of earth spread around it.

This electromagnetic flux is very high for very big matter like big stars, black hole & galaxy. This gravity of electromagnetic flux around big matter is **more active at long distance than near to it**.

This is the reason for additional gravitation present in the space. As space also has gravitational effect & space has very large volume, this gravitational effect is much more than consider.

Experimental Evidence:- It is found by NASA that x-ray get emitted from centre of galaxy where black hole is located.

This is because <u>near to</u> black hole very high balance electromagnetic flux is present due to very big mass in the black hole. It is so high that when any matter or gas inter in to near space of black hole. Electrons from that gas automatically get exited due to potential spike of high electromagnetic flux. This automatically exited electron tries to cool down by loosing high energy photon. This is the reason to get x-ray emission from near space of black hole.

CHAPTER 3:- REASON FOR ACCELERATING EXPANSION OF THE WORLD & BIG BANG. (VACUUM & SPACE ARE DIFFERENT & LAW OF PHYSICS IS APPLIED IN SPACE ONLY.)

One day, accidently, glass of water fell from my hand on my study table. Water has moved in all direction on table & from edge it fell with much higher velocity from table. This is because water moves away from the frame of table.

I just got this idea by seeing this phenomena because world is also like table. After the edge of our world, there is no space with relative to which physics rule of motion can be applied. There is no frame of reference.

So, motion away from world edge becomes un-deterministic.

Galaxies fell in this deep vacuum (not space) without any rule of physics.

So, velocity of galaxies at edge of world increases very rapidly like falling water from table & this stretches world frame rapidly in outward direction.

In previous chapter, I explain space is made by fields by matter & as there is no matter beyond edge of our world. There is no space outside this world. So, galaxies at the edge see no space where they are moving. So, they move with velocity which physics cannot predict. This is something like free fall of galaxies in deep vacuum.

This explains accelerating expansion of the world.

This is not happening now but from the birth of this world i.e. big bang. When big bang happen edge of universe expand at very high velocity because edge of the universe expand in vacuum without any predicted velocity by physics. The physics is applied inside the world but not to the falling edge of world in vacuum. So, after big bang, edge of world expands with velocity which cannot be predicted by physics. So, expansion velocity of world after big bang is very, very fast much more than C.

This is big bang velocity of world.

After the edge of universe energy level changes from some value E to –ve infinity of vacuum.

So, Change in energy dE = infinity = F.dS

So, Force applied on galaxies on edge from outside vacuum =dE/dS = infinite.

So, expansion of world at edge is happen with infinite velocity

<u>Picture of world at anytime remain same:- World is made up of inward & outward expanding universes.</u>

Kinematics laws of physics are applicable in space only, not in vacuum (Space & vacuum are different).

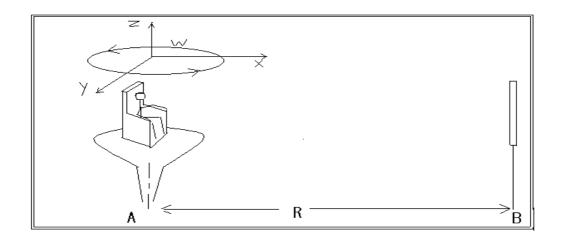
So, edge galaxies of the universe moving towards outward vacuum do not obey any physics law & accelerated away with very high increasing velocity which is not considered by physics. This is the reason for accelerated expansion of the world. In this process some edge galaxies go far away from universe & get de-attached completely from our universe (or away from flux of the universe).

Same big bang may happen in this world at some other different focal points at very long distances also. So, these galaxies after big bang will not move toward old big bang points but will move toward new big bang points. If these galaxies come closer to some other point & come near to electromagnetic flux of other galaxies then again physics law of motion get applied to this inward motion of galaxies & new inward moving universe is created near to new focal point.

This inward motion of galaxies group obeys the law of motion of physics. Now, gravitational field of new universe collect the total matter of this new universe at one point & again big bang happen. This big bang create new expanding universe. Such big bangs in the world keep the world live & resist it from collapsing at one point in vacuum.

Chapter-4

RELATIVE VELOCITY CAN BE MORE THAN VELOCITY OF LIGHT & EXPERIMENTAL EVIDENCES SHOWS THAT EINSTEIN IS WRONG



Let us consider man is sitting on revolving chair at point A & one clock is fixed at point B. Then, man sitting on revolving chair sees that whole world is revolving around him and he himself is stable (same as in moving train, people fill they are stable and trees, houses are moving in opposite direction). Revolving frame of reference of man is shown in figure i.e. revolving about Z-axis. Then for that frame of reference, clock B will move in circle $X^2 + Y^2 = R^2$ and if W is angular velocity.(i.e. $W = 2 \pi I T I$)

Then linear velocity of clock at any instant will be

$$V=R$$
 . W ------(i.e. $V=2.\,$ T. R/T = circumference of trace circle / T)

Consider, W = 1 rad / s

Then, V = R

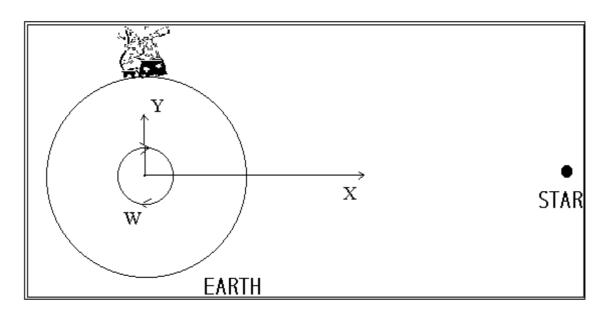
But, R does not have any limit because it is distance. So, if R>C

then V > C

i.e. velocity of clock > velocity of light.

You may say that above calculation may be true, but this situation will not present in real life where some object have linear velocity more than light.

But, I say it is present in real life. Let us consider,



A man on the Earth, he himself is sitting on revolving frame of reference. Let us consider one star at distance R from revolving axis of earth then linear velocity of that star will be

$$V = R \cdot W - - - - (1)$$

Here, W = 2. $T / T = 2 \times 3.14 / 24 \times 60 \times 60 = 7.26 \times 10^{-5}$ radians per second.

We know nearest star on earth is at distance of 4 light years away i.e. $R = 4 \times 8 \times 10^8 \times 60 \times 60 \times 24 \times 365$

Therefore, for nearest star.

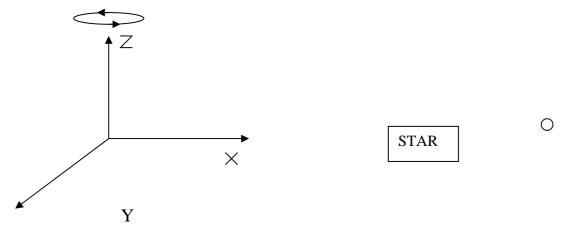
$$V = 7.326 \times 10^{12} \text{ m/s} > C$$

This equation clearly indicate that even nearest star is moving with velocity 9000 times more, than velocity of light in reference frame which fixed on revolving earth.

This clearly shows that, the stars which you see in the sky above equator moving from East to West having linear velocity more than C relative to man on revolving earth.

When I was learning relativity. One of my teacher was teaching relativity, said that velocity of light is ultimate. No other matter has relative velocity equal to light or more than light.

I asked if any object's velocity is increased to that limit then what would happen? He says that velocity of object, suppose train will increase with relative to you. You will find that its length will be decreasing and if velocity reaches to velocity of light, its length will be zero i.e. train will be invisible. If its velocity becomes more than C (light velocity) its length becomes complex (unexplainable) i.e. its view will be unexplainable.



But here if co-ordinate of Star (in reference frame revolving with the earth and revolving axis is its Z-axis as shown in figure & distance of Star from revolving axis is 4 light year i.e. distance of nearest Star) is (X, Y, Z) = (4 light year, 0, 0).

Then after every 6 hours its co-ordinates will be (0, 4 light year, 0), (-4 light year, 0, 0), (0, -4 light year, 0) and after 24 hours its co-ordinate will be again (4 light year, 0, 0).

Means, for this frame of reference in 24 hours Star will move in distance equal to 2π (4 light year) and its velocity is 7.326×10^{12} m/s i.e. 9000 times more than light velocity C.

Means, for man on the earth every star is moving with velocity more than light velocity. But also, we can see stars.

If relativity is true then matter moving with velocity more than light velocity with relative to you should not be seen by you but it would be seen some thing complex. Also time on that object become complex so event on stars should not be seen by you.

But we can see star moving with velocity more than C (light velocity) with relative to us from East to West every day. Means Relativity's basic concept i.e. 'velocity of light is ultimate is wrong.' Now, in laboratory we can accelerate apparent pulse of light with velocity more than C.

I believe that velocity of light is ultimate for local space frame but did not believe in relativity. From the first day I have started learning relativity.

Experimental evidence shows that Einstein is wrong:

1) This is already proved that even moving with velocity C photons are active,.
This is impossible by Special theory of relativity.

For example, man is shaking hand in the train moving with velocity V & the observer is on the platform then the Observer will find that the motion of hand will slow down as velocity of train increases. This hand motion will stop completely if velocity is C, as relative time stop completely in train frame. So, Man at rest will not observer any event & motion in the frame moving with velocity C but it is experimentally proved that photon is active for rest observer & also interact with each other & this is observed by the rest observer.

This is impossible. If special relativity is true then Photon must be dead horse for rest observer & cannot interact or even be active. Following links shows that Photon is still active moving with velocity C.

- a) https://www.nature.com/articles/d41586-017-02643-x
- b) http://vixra.org/pdf/1302.0127v1.pdf
- c) http://phys.org/news/2013-09-scientists-never-before-seen.html
- 2) It is observer by NASA that in some distinct Galaxies. They found some objects are moving with velocity much more than velocity of light.

https://www.express.co.uk/news/science/1187112/nasa-news-albert-einstein-wrong-theory-relativity-hubble-telescope-messier-87-spt

This is possible because kinematics physics is depending on space where event happen & space is made up of electromagnetic flux. In galaxies where this flux is very very less, such fast motion is possible. This is generally possible in galaxies near to the edge of universe.

3) When I was in school & teacher was teaching Special relativity to us. I had asked one question to the teacher. If I fixed four pulleys A, B, C & D in such a way that they would create rectangle & one thread is mounted on that pulleys & that thread is revolve on the pulley with some velocity then what will happen. Length of thread would decrease due to length contraction as inter molecular distance get contracted (as per SR) but center's of four pulleys would remain at same point. How would this possible? My teacher said that velocity of thread is not much. So,

this problem would not be created in actual life. Now, same problem can be asked in CERN experiment.

In CERN, 2808 bunches of protons are rotated in circular path, initial velocity of rotation is V1 = 0.9993 C at 25 GeV & final velocity of rotation V2 = 0.99999999 C at 6.5 TeV..

So, value of y changes from Y1= $\{(1-V1^2/C^2)\}^{-0.5} = 26.7308$ to Y2 = 7071.068. This is very big change in Y. So, distance between any two bunches of protons will get decrease by 264.5288 times when velocity of protons increases in accelerator due to length contraction.

This will decrease the total circular path of proton from 27000 m (27 km) to just 102.0683 m (0.102 km).

& radius from 4299.363m to just 16.253 m.

How is this possible as accelerating magnets are at same position for rest observer?

Mean's actually CERN is proving that Einstein special theory of relativity is wrong.

Because observer will observe the both i.e. distance between two Bundles are decreasing in circular path & accelerating magnets are at same position for rest observer. Both cannot be true at the same time.

Chapter-5

Quantum mechanics below elementary particle level?

Abstract: - Matter is simply made from Two quantum of +ve & -ve charge fields. You may call it as charge spike in local space. Detail is given below.

(All four forces or fields are carried by same two particles)

WHAT IS MATTER & ADDITIONAL DARK MATTER MADE UP OF?

Author has some basic problems in physics.

- 1) What is the world made up of? This world is made up of matter, dark matter & different radiations. How is this all formed?
- 2) Established concepts are, light is the flow of photon and photon is the bundle of energy. Second concept is, energy is the capacity to do work. Both concepts cannot be true at once.

Can anybody make bundle of some capacity. No, this is completely impossible thing. For example, someone has capacity to pick the book from table and do some work. Can somebody make bundle of that capacity? No, means photon cannot be consider as bundle of energy.

Means, photon is not the bundle of energy but something else. In this paper, Author will try to give answer of this problem.

Mathematically it is already proved that total energy of photon is kinetic energy & it is impossible to create a bundle of kinetic energy.

3) In Nature, energy acts as an effect of properties of a matter. For example, gravitational energy is the effect of gravity and gravity is the property of matter. Magnetic energy is the effect of magnetism and magnetism is the

property of magnet and mass itself is the fundamental characteristics of the matter.

Then, how can someone say that mass m i.e. one characteristic of matter can be changed in to energy? (Which is effect of properties of matter). Answer of this problem is given in this chapter.

4) If a cube of sugar disintegrates, we say that it is made up of some other particles. (i.e. Molecules of sugar)

But, if we find molecules of sugar that too disintegrating, then we can say that it is made up of some other particles. (i.e. atoms and atom is made up of electron, proton, neutron etc)

But, now we find electron, proton, and neutron i.e. elementary particles also getting disintegrated. So, we can say that they are made up of some other particles.

Now, fermions, gauge bosons, and the Higgs boson are also disintegrated for example, electron & positron create photonic emission, photon also gets disintegrated into electron & positron pairs and then we can say that they are not original particles or made from other particles.

But of what? I intend to solve this problem.

- 4) What is dark matter in Universe? Whose quantity is more than seen matter & whose existence is detected by its gravity only.
- 5) Photon is charge less particle but when wave nature of light is considered. It is electromagnetic vibration. How is this possible?

There are too many other problems. To solve all these problems, I would like to propose one theory.

THEORY

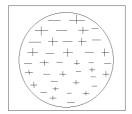
I think this whole world is made up of two very very small particles (or packets) having similar positive and negative charges and other properties are exactly similar. (Just act as anti particle of one another).



This small +ve and –ve charges and small gravitational field are responsible for every energy in nature. For example, gravity is due to small gravitational field. Magnetic and electric, these energies are due to its charges. (Other can be defined by the same way.)

It means, every energy in nature is the effect of properties (charge and gravity) of these small energetic particles. (Which are also original particle of nature.)

Every elementary particles or photon is made up of the network of these energetic particles. It is seen as cloud of charges.



In elementary particle when –ve energetic particles are more than +ve energetic particles (fundamental particles). It gets –ve charge.

When +ve energetic particles are more. Elementary particle get +ve charge.

And in neutral elementary particles (photon also) +ve and -ve energetic particles are equal in number.

For every elementary particle

Total energy \Rightarrow (no. of energetic particle present in it)

And as elementary particles are made up of energetic particles.

Mass of elementary particle *∞*< N

i.e.
$$M \sim N$$
 -----(2)

From equation (1) & (2)

$$E \ll M$$

Here K= proportional constant

We know, what are those energies of elementary particles?

So, total energy of elementary particle = gravitational energy + charge energy + magnetic energy + kinetic energy + potential energy

i.e. E=K M = E gravi + E charge + E mag + E kin + E pot

Here, E gravi: - Capacity to do work by small gravitational field.

As, E gravi is very small as compare to other energies. Hence, for any elementary particle.

Total energy = E = K M = E charge + E mag + E kin + E pot

Here, charge energy: - capacity to do work due to its charge.

Magnetic energy: - capacity to do work due to its magnetism.

Kinetic energy: - capacity to do work due to its momentum.

Potential energy: - if magnetic or charge field of this particle acts on other but work is not done then possible work acts as a potential energy of the particle.

In case of photon, E charge = E mag = E pot = 0

So,
$$E = E$$
 kinetic $= K$ M

Here, kinetic energy of photon is divided equally in two parts, external energy i.e. energy due to linear motion (linear kinetic) & internal energy due to cumulative angular motion (due individual or collective spin and simultaneous vibration).

$$K M = 2 . E linear = 2 . (\frac{1}{2} . M C^{2}) = M C^{2}$$

Therefore,
$$K = \mathbb{C}^2$$
 -----(5)

$$E = M C^2$$
 -----(well known equation)

And, $M C^2 = E \text{ charge} + E \text{ mag} + E \text{ kin} + E \text{ pot}$

Author call above equation as **ELEMENTARY ENERGY EQUATION.**

Above equation is true for every elementary particle.

{Some physicist may say that this is against famous relation of quantum mechanics.

 $E = \sqrt{m^2 c^4 + c^2 p^2}$ but if I put $p = \gamma$ m v then output will be

 $E = \gamma m c2$

i.e. E = relative mass . c2

So, My equation is not much different

Only thing is that to consider photon as bundle of energy is not required}

One of the physicist said that you are wrong because rest mass of photon is zero.

My answer:- total energy of photon is kinetic energy or total energy is due to its momentum (unlike electron or proton). So, its reverse mathematical meaning is if photon is at rest then its energy, mass or momentum is zero.

But photon cannot be at rest & mass cannot be zero. Zero rest mass of photon is just mathematical effect of above equation.

In case of non-charge particle like photon & neutrino as their total energy get expressed as kinetic energy. Their velocity (c) is much & much greater than other particles like electron & proton etc. whose energies get express in other forms also, like charge, magnetic energy etc. This is already proved.

Wave nature of particle

(There is no explanation for dual nature of particles in world until now. It is accepted as fact without explanation. How single particle can cause interference etc are still the problem for physics)

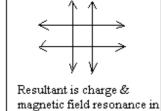
Author thinks that size of energetic particle is very small & every energetic particle is surrounded with very strong electric charge field whose size and reach is much more than particle size. This is some thing like packets of +ve & -ve charges living together. Due to attraction and repulsion between all particles in elementary particle, there is resonance of charges in elementary particles. This charge resonance creates magnetic resonance in perpendicular direction. This will create electromagnetic resonance or wave nature of elementary particle.



Resonance of particles



Equivalent picture is same charge is vibrating in same direction

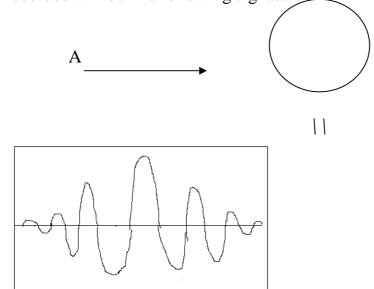


perpendicular direction

(As motion of +ve particle towards right side, its electromagnetic effect is equivalent to motion of –ve particle towards left side.)

So, when this particle moves from space, electromagnetic resonance moves with it instantly.

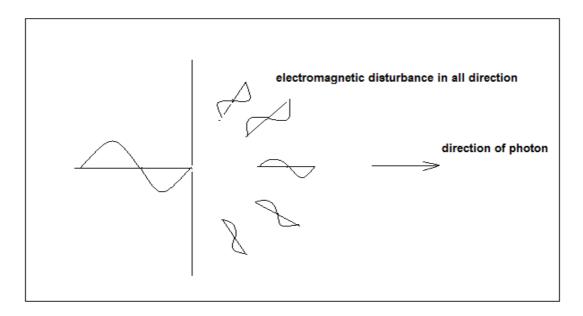
For example, photon A is moving through the electromagnetic wave recorder then electromagnetic pulse which it will recorded will be like following signature.



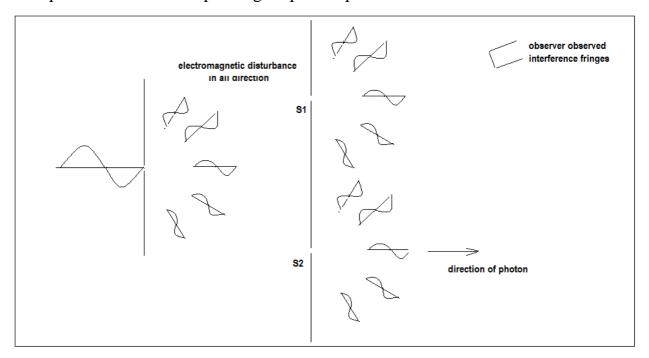
Wave Signature

Position of photon is near to where amplitude of wave will be much higher. For stationary observer this behavior is like pure electromagnetic wave pulse. Locally electromagnetic overlapping is instantaneous. So, its effect is instantaneous at some distance forward & backward of photon. So, we get wave signature up to some distance.

Dispersion:- If size of slit is less than wave length of electromagnetic light pulse. Photon is not dispersing but electromagnetic disturbance whose behavior is like wave will get spread in opposite side.



Interference:- In interference, this disturbance from original slit passes through two other slits S1 & S2 & that create interference fringes. Then what ever may be the path of photon, until wave or electromagnetic disturbance passes through original slit, overlapping of disturbance will happen after slit S1 & S2 instantly. This will forms the interference patterns. This pattern will not be depending on path of photon.



Polarization: - Photon is much smaller than electromagnetic flux around it & generally it is non-polarized in nature but due to grating geometry of crystal. This vibration of electromagnetic flux can be changed. This is due to internal vibration change of energetic particles. By passing light through proper medium, we can change polarization of light.

In Additional dark matter which is explain below this wave nature is absent because it is made up of only two +ve & -ve energetic particles. Both energetic particles behave independently to form basic stable structure of the world. This is called additional dark matter of the universe.

ADDITIONAL DARK MATTER

This matter is the origin of all matter in universe. This matter is simplest matter made by this two +ve and -ve energetic particles. In this matter all the energies like E gravi, E charge, E mag, E kin is well balanced in very small space as explain below.

In this matter two +ve and -ve energetic particles revolving around their mass center like binary stars



Attraction between +ve and –ve charges form force toward center and velocity form to balance kinetic energy to balance elementary energy equation

$$M C^2 = E charge + E mag + E kin + E pot$$

form force against that attraction force. (centrifugal & centripetal forces)

As both particles are just antiparticles of one another. Magnetic field formed by one +ve particle is canceled by other -ve particle. Charge field formed by one +ve particle is canceled by other -ve particle and motion of both particles is suppress in limited small area due to their circular motion. In this matter both energetic particle expresses all their energies in very small space only.

This matter is well balanced. All energies are well balanced in limited small area. There is no resultant radiation by which matter is detected, no resultant magnetic field, no resultant charge field, no resultant motion and size is so small that this matter can goes through other matter undetected. Only detected term is its gravity, which is also too small.

Author thinks this matter remains everywhere in universe undetected and as this is very simple structure its quantity is more that other matter in universe. This is already a proved concept. This may be revolving around earth, sun and galaxy undetected because this is dark matter. As this matter is spread everywhere its **resultant** gravitational effect also remain undetected.

This matter may present in deep space as big revolving cloud but remain undetected as radiation from other object goes through it undisturbed. Size of this **particle is much smaller than even photon** but no resultant motion or radiation.

This is first very stable state of matter. So, quantity of this matter is much more in universe.

Other matter

- 1) Absorb & discharge electromagnetic radiation.
- 2) Made up of elementary particles, which are made up of energetic particles.
- 3) Any matter cannot move through other solid matter.
- 4) Molecules of matter interact with each other & bond is form between these molecules to form matter.
- 5) This matter is visible matter.

Additional Dark matter

- This matter is most stable matter
 not interacts with any radiation.
- 2) Directly made up of two independently revolving energetic particles. So, very simple structure & Quantity of this matter is much more.
- 3) Particle size of this matter is so small that it can easily move through any solid matter.
- 4) Every particle act independently. There is no interaction or bond between two particles. Even single particle will float independently.
- 5) Only gravitational effect is visible.

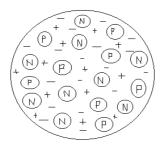
<u>Black hole</u>: - In black hole mass of star get compressed in very small area. First matter formed by compression is high-density matter. When due to high gravity this state of matter also get collapsed & only state of matter remains is dark matter. In this dark matter very high energy is well balanced in very small area. Author thinks that main matter in black hole is dark matter where very high energy get store in very small space.

<u>Big bang</u>: - This dark matter is also getting crushed due to very high gravity. This is formed when all the matter of the universe accumulated at one place. This is the

time before big bang. Where all the energies well balance in small space & these energy is suddenly get release in one stroke as charge burst when this dark matter get collapsed & then the very high explosion occur. This creates big bang effect.

NATURE OF ATOM

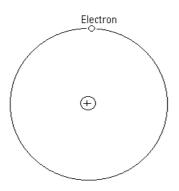
<u>NUCLEUS</u>: - it is made up of protons (P) and neutrons (N) and lot of elementary particles. Its picture at every moment is changing. Proton changes to neutron and neutron changes to proton and flying elementary particles moving from one another are replaced by other. It means for instant picture of nucleus just like jelly because every nucleons are made up of energetic particles.



ELECTRON: - electron moves around nucleus in some fixed orbit. It is also made up of energetic particles but when any photon is added to electron. The numbers of energetic particles are also increases. We know for electron,

$$E = E kin + E charge + E mag + E pot = M C^{2}$$

When photon is added. Mass M changes from M to M + dm but here, E charge, E mag & E pot remains constant only changeable energy is kinetic energy, so when photon is added only kinetic energy of electron increases & it jumps from lower orbit to higher orbit. In reverse case same thing happens in reverse manner.



SOLUTIONS OF DIFFERENT PROBLEMS

1) WHAT IS MEANT BY HEAT ENERGY?

Temperatures of substance (heat energy level) depend upon, how much electrons are excited in atom of substance? Electrons get excited when it gets more energetic particles (by this theory). Means, heat energy of any body depends upon number of extra energetic particles that do exits in that substance.

At 0° A (absolute) electron of substance get sufficient numbers of energetic particles. But as temperature increases, numbers of

extra energetic particles in electrons get increases. So, radiation of those extra energetic particles from electrons is always going on in the form of photons. At the same time, electrons also accept photons from other radiation.

So, in case of electron, accepting and giving out photons is always going on. So, temperature of substance is only constant when rate of energetic particles accepting and going out (in the form of photons) is equal.

Now, we get actual picture of thermal energy and its translation i.e. when we heat any substance, we only give extra energetic particles in the form of photons to that substance. For example, when we supply heat by burning coal. At that time, we supply photons emitted due to chemical reaction between Carbon & Oxygen to heating substance. Vibration of molecules is effect of extra energetic particles in electrons of the substance.

2) IF PARTICLES LIKE TACHYON ARE IN EXISTANCE THEN HOW DOES IT HAVE VELOCITY GREATER THAN LIGHT?

This can be proved by this theory. We know for any particle. E kinetic = $M C^2 - (E \text{ charge} + E \text{ mag}) - \dots (1)$

If Tachyon have cumulative spin & vibration of energetic particles then

E kinetic = E linear kinetic + E angular kinetic (due to spin & vibration)

But if M is mass & V is velocity then,

E kinetic =
$$\frac{1}{2}$$
.M .V 2 + E angular kinetic -----(2)

$$\frac{1}{2}$$
.M.V = M. \mathbb{C}^2 – (E charge + E mag + E angular kinetic)

But if (E charge + E mag + E angular kinetic) $< \frac{1}{2}$.MC²

Then,
$$\frac{1}{2}$$
.M.V² > $\frac{1}{2}$.M. C²

SO,
$$V > C$$

3) IF IN NATURE FOLLOWING TYPES OF REACTIONS ARE GOING ON

Suppose proton & proton get collide

$$P + P \longrightarrow P + P + \overline{P}$$
 $P + P \longrightarrow P + P + N + \overline{N}$

And when P & N collide

Such reaction can be explained by this theory. In any reaction

$$A + B \longrightarrow C + D + E + F$$

Total energetic particles before reaction = total energetic particles after reaction

So, Ma + Mb = Mc + Md + Me + Mf
Or, Ma.
$$\mathbb{C}^2$$
 + Mb. \mathbb{C}^2 = Mc. \mathbb{C}^2 + Md. \mathbb{C}^2 + Me. \mathbb{C}^2 + Mf. \mathbb{C}^2

i.e. total energy before = total energy after reaction -----(1)

Also, in reaction number of extra +ve or -ve energetic particles remains same. So,

Both equations are always true in any reaction between two elementary particles. For example,

$$P+P \quad \longrightarrow \quad P+P+P+\overline{P}$$

Here, total energy before = total energy after and

Total extra +ve charge before = total extra +ve charge after

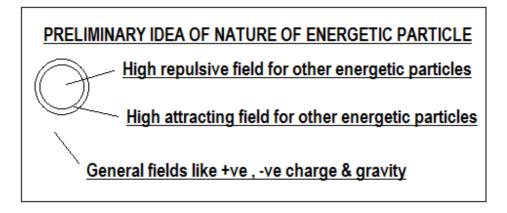
4) As energy is the capacity of doing work, how can we explain explosion of atom bomb or hydrogen bomb?

In case of atom bomb or hydrogen bomb, matter of mass M changes to the particles of radiations whose total energy is equal to MC^2 .

MY PERSONAL THOUGHTS ABOUT NATURE OF ENERGETIC PARTICLE IS GIVEN BELOW (THIS CAN BE DEBATED & CAN BE IMPROVED)

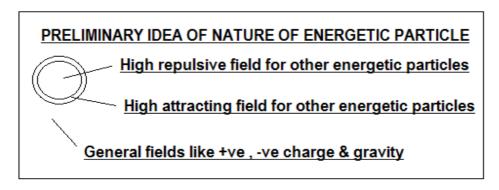
Nature of energetic particles:-

Energetic particle may be formed by small high repulsive field surrounded by very high attractive field like ring & then general fields like gravity, +ve or -ve charge field. Repulsive field at centre gives elastic nature to particle; attractive field gives nuclear forces & binding forces to particle. General Fields like gravity & charge fields gives a tool by which energetic particle expresses our self in the world



All fermions & Bosons are made from these particles. All types of fields are carried by the same particle.

1) Why antimatter is not present in world abundantly? Answer:-



This may be structure of energetic particle. Here, attracting field band of energetic particle is responsible for interaction with other energetic particles. I called this band as sticky substance in energetic particle. This band slows down vibration between even same charges energetic particles. I consider that this attracting band is wide in +ve charge energetic particle than -ve charge energetic particle. Mean's, in +vely charge elementary particle contain more sticky substance than same size -vely charge elementary particle. So, big size +vely charge particles are easily formed in nature. So, +vely charge nucleus is more stable than -vely charge nucleus because +vely charge nucleus contains more sticky substance than -vely charge nucleus.

This may be reason for more matter present in world than antimatter existed

2) Why does charge less particles like phone & neutron have more velocity?

Answer:- In case of non-charge particle like photon & neutrino as their total energy get expressed as kinetic energy. Their velocity (c) is much & much greater than other charge particles.

From discussion it is clear that every energy, every matter & every action is formed due to action, reaction between the fields.

ONE ADDITIONAL EXAMPLES FOR NEWTON PHYSICS WHICH PROVES THAT HIS INNERTIAL FRAME CONCEPT IS WRONG.

Example 1:-

Just consider one long spacecraft of 10 t accelerate from velocity 0 m/s to 4 m/s from one

space station. In this spacecraft's long cabin,

one small rocket of 10 kg is fixed at the ceiling.

(So, Energy require to move spacecraft from velocity 0- 4 m/s = 0.5 X 10000 X 42

=80000 Joule)

& Part of energy to move rocket of mass 10 kg from velocity 0- 4 m/s with spacecraft = $0.5 \times 10 \text{ kg} \times 42 = 80 \text{ Joule}$ ----(1)

Step 2:- Now, small rocket in long spacecraft cabin is released from ceiling of roof & get fired in cabin from velocity 0 - 4 m/s

Now, rocket will require $0.5 \times 10 \text{ kg} \times 4^2 = 80 \text{ Joule of energy again in this new inertial frame of cabin.}$

Now, Total velocity gain by rocket is 4 + 4 = 8 m/s form space station by consuming 80 + 80 = 160 joule of energy.

If I want to fire directly the same mass small rocket with velocity 8 m/s. I will require $0.5 \times 10 \text{ kg} \times 8^2 = 320 \text{ Joule of energy}$.

Now, both same mass rockets will be at same velocity for space station but require different energy i.e. 160 joule in steps & 320 joule in no step.