EINSTEIN'S THEORY OF RELATIVITY IS WRONG.

& WHAT IS THE WORLD MADE UP OF?

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Preface

This book proves that Einstein theory of relativity is wrong. This book also gives solution to what is the world made up of? How does the particle have a dual nature? What is Dark Matter? What is mean by dark energy?

This book also talks about real theory of relativity. In this book, I use mathematics only when it is very much require for avoiding confusion. This book indicates the path where we will achieve the final truth of world.

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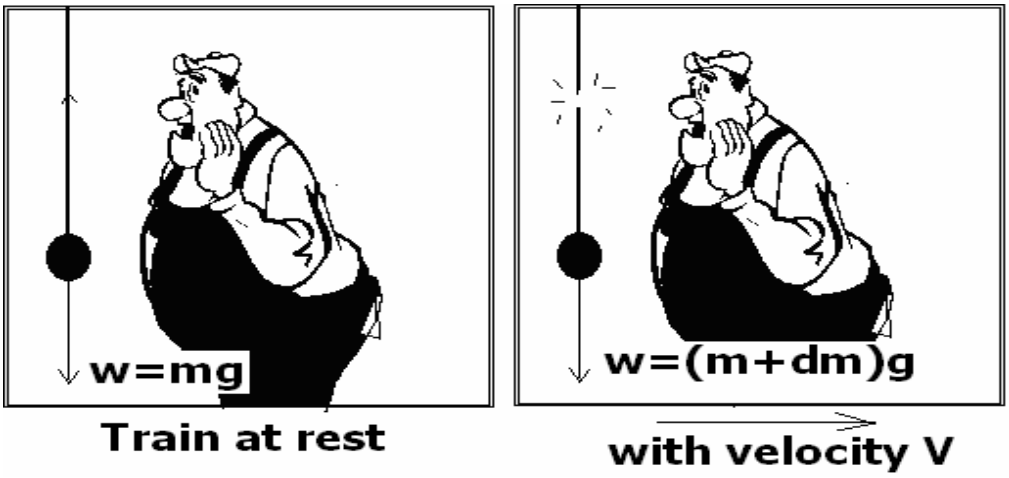
Chapter-1

EINSTEIN'S SPECIAL THEORY OF RELATIVITY IS WRONG

Weight is not constant in two inertial frames of references (PART I):-

This paper started from small event created by the Author during discussion with friends



Event:-

One man is in the train moving from one station to another. He has hanged ball with mass 'm' from his hand with threads which is just sufficient to resist 'm.g' force i.e. gravitational attraction on ball. This train's cabin has big window. One Cockroach is sitting on that ball from lower side. One Padre is waiting at next station & observing this approaching train with binocular & also sees through big window of train. He is observing the man having ball in his hand from that window. Then what will happen by relativity.

1) For man in train's cabin:-Nothing happens. As ball are stable with relative to the observer. Mass of ball will remain ' m' & weight will be 'm.g'. As string is sufficient to resist force 'm.g', ball will not fall & Cockroach will be live.

2) For Padre standing at next station:- He observed that due to velocity, mass of ball increases from ‘m’ to ‘m+dm’ & weight of ball increases from ‘mg’ to ‘(m+dm)g’ due to relativity. String is just sufficient to take force ‘mg’, so as force in string increases from ‘mg’ to ‘(m+dm)g’ for this frame. String will break & ball will fall on the floor of cabin & Cockroach will get killed due to collision.

Padre shouts “Oh! That man has killed that innocent Cockroach”.

Now, train reaches to next station after slowing down.

Padre rushed into train cabin & shouted at the man “You have killed that Cockroach. I have observed it & blood is there on that ball”

Man innocently said,” Cockroach is not killed in collision. I, ball & Cockroach all are at same rest position. Cockroach is live.”

Now both Padre & man are at same frame of reference means only one is true. Who is true? Cockroach is killed in collision or Cockroach is not dead & still sitting on ball. Please answer this problem.

One of my friends said that weight will remain same as gravitational force of acceleration ‘g’ is not constant but changes due to time dilution in different frame of reference & this will take care of change in mass. Author has done some mathematical calculations to confirm this.

Mathematics 1 is calculation done by Author given here only to fill how slow down of time effects weight in moving frame and **Mathematics 2, 3 & 4 is calculation based on standard text book of relativity.**

Mathematics 1:-

Let, X- axis is in direction of motion of train with velocity V & Y-axis is in vertical direction i.e. in direction of g.

Due to velocity of train contraction of space happens in X direction only & as event happens perpendicular to V. Event is not affected by space contraction.

Weight of ball = d/dt (Moment in y direction)

$=d/dt \{(M\ rel) . (Vy)\}$

$=d/dt \{(\gamma . Mo) .(Vy)\}$

Here, $\gamma = 1/(1-V^2/C^2)^{0.5}$ & Mo is rest mass.

As V, C & Mo is constants.

Weight of ball $= (\gamma . Mo). dVy/dt$

dVy/dt = acceleration due to gravity in that frame of reference $=g$

Weight of ball $= (\gamma . Mo). g$ ---------- (1)

To find out g for train rider & Padre on platform, consider one more event in train cabin. Let, consider ball of any mass falling from height h in cabin this event is observered by both observers then,

FOR TRAIN RIDER:-

Height $h = 0.5 . g . t^2$

$g = 2. h/ t^2$

Equation (1) changes to

Weight of ball $= 2 (\gamma . Mo). h/ t^2$

Here, $\gamma = 1/(1-V^2/C^2)^{0.5} = 1$, as V = 0

So, Weight of ball $= 2 . Mo . h/ t^2$ ---------- (2)

FOR PADRE ON PLATFORM:-

Time = γ t

Height h = 0.5 . g . $(\gamma . t)^2$

(h remain same as it is perpendicular to V)

g = 2. h/ $(\gamma .t)^2$

Equation (1) changes to

Weight of ball = 2 $(\gamma. Mo)$. h/ $(\gamma .t)^2$

= (2/ γ) . Mo. h/ t^2 ---------- (3)

From (2) & (3)

Weight of ball for Padre on platform = 1/ γ . Weight of ball for train Rider

Means as train velocity increases weight of ball decreases.

Now, some physicist says that this calculation is not given in standard books on relativity. I referred standard books of relativity and did mathematics again.

<u>Mathematics 2:-</u> The transformations for the acceleration of a particle

(reference :- book…Elements of special relativity by Dr T M Karade, Dr K S Adhav & Dr Maya S Bendre, publisher Sonu Nilu, Nagpur. page no.40).

If (ax, ay ,az) & (ax',ay',az') are acceleration of the particle in inertial frames S & S' respectively & frame S' is moving with velocity V with relative frame S in X-direction then

.ax'= ax/$\{\alpha^3. (1-ux. v/c^2)^3 \}$ where $\alpha = 1/(1-v^2/c^2)^{0.5}$ ----1st equation

.ay' =1/ α^2 . $\{1/(1-ux. v/c^2)^3 \}$. {ay.(1- ux v/c2) + uy.ax . v/c2)} ----2nd equation

.az' =1/ α^2 . $\{1/(1-ux. v/c^2)^3 \}$. {az.(1- ux v/c2) + uz.ax . v/c2)} ----3rd equation

This is the final output given in the book.

In our case, ax = 0 then ax' = 0 -----(From 1st equation)

.az = 0, uz = 0 then az'=0 -----(From 3rd equation)

As ux =0, ax = 0 then ay' = 1/ α^2 . ay ---------similar to my consideration -----(From 2nd equation)

Or acceleration of ball for Padre on platform = 1/ α^2 . acceleration of ball for train rider------- equation (1)

We very well know that Mass in platform frame = α . Mass in train frame ------equation (2)

From (1) & (2) --multiplying both side

Wt in platform frame = 1/ α . Wt in frame of train rider

Weight of ball for Padre on platform = 1/ α . Weight of ball for train Rider

Same equation is the output of my mathematics.

Mathematics 3 :-

(reference :- Book ..Elements of special relativity by Dr T M Karade, Dr K S Adhav & Dr Maya S Bendre, publisher Sonu Nilu, Nagpur, page no.116).

Force acting $F = 1/(1-u^2/c^2)^{0.5} . Mo . a + 1/(1-u^2/c^2)^{1.5} . (Mo/c^2). (a \circ u) . u$

If a is perpendicular to u then (a o u) = 0

Therefore in our paradox $F = 1/(1-u^2/c^2)^{0.5} . Mo . ay'$

$$F = \alpha . Mo . ay' \text{ -------equation (a)}$$

In above calculation transformation of acceleration is not done but we know from equation (1) of mathematics 3

Acceleration of ball for Padre on platform = 1/ α^2 . acceleration of ball for train rider

$$ay' = 1/ \alpha 2 . ay$$

Put this value in equation (a)

$$F = \alpha . Mo . 1/ \alpha 2 . ay$$

$$F = 1/ \alpha . Mo . ay$$

Weight of ball for Padre on platform = 1/ α . Weight of ball for train Rider

This clearly indicates that even text book mathematics of relativity also gives the same

result.

Mathematics 4:-

Let us develop the transformation of force from a system *S* where a particle is moving at a speed **v** to any system *S*′ which is moving relative to system *S* at a speed **V**.

Calculating the transformation is very similar to the transformation of velocities. We begin with the momentum transformation (and not the coordinate transformation as we did for the velocities). We have:

$$P'_x = \gamma\left(P_x - \frac{\beta}{c}E\right) \qquad P'_y = P_y \qquad P'_z = P_z$$

with β and γ defined using the **coordinate system** velocity **V**:

$$\gamma \equiv \frac{1}{\sqrt{1-\frac{V^2}{c^2}}} \qquad \beta \equiv \frac{V}{c}.$$

Using the chain rule, we can write:

$$F'_y \equiv \frac{dP'_y}{dt'} = \frac{dP'_y}{dt}\frac{dt}{dt'} = \frac{dP_y/dt}{dt'/dt}.$$

However, we have from the Lorentz transformation for the time, that

$$t' = \gamma\left(t - \frac{\beta x}{c}\right) \quad \Rightarrow \quad \frac{dt'}{dt} = \gamma - \frac{\gamma\beta}{c}\underbrace{\frac{dx}{dt}}_{v_x}$$

Thus,

$$F'_y = \frac{F_y}{\gamma\left(1-\frac{Vv_x}{c^2}\right)}.$$

MEAN'S FOR TRAIN RIDER:-

If , Weight of ball =Fy ---------- (2)

FOR PADRE ON PLATFORM:-

Use transformation equation (1)

For this event Vx =0 put this in equation (1)

Weight of ball = (1/ γ) Fy

Or

Weight of ball for Padre on platform = 1/ γ . Weight of ball for train Rider

Means as train velocity increases weight of ball decreases by relativity.

Problem:-

This will create a problem. When due to relativity any additional force is created in any reference frame, any additional irreversible event will happen in that reference frame due to that force that will create Paradox. Means observer will turn in to creator of event.

My friend says that your first event will not work here as weight of ball for Padre is less. For this reason, Author has just changed the story.

Event 2:-One man is in the train moving from one station to another. He has ball with mass '(γ.m)' from his hand with threads which is just sufficient to resist 'm.g' force here 'g' is gravitational acceleration in that cabin. This train cabin has big windows. One Cockroach is sitting on that ball from lower side. One Padre is waiting at next station & observing this approaching train with binocular & also see through big window of train. He is observing the man having ball from that window. Then what will happen by relativity.

1) For man in train cabin:-When train rider hang the ball to string, tension in string reaches to 'γ m g' & string breaks & Cockroach will get killed due to collision.

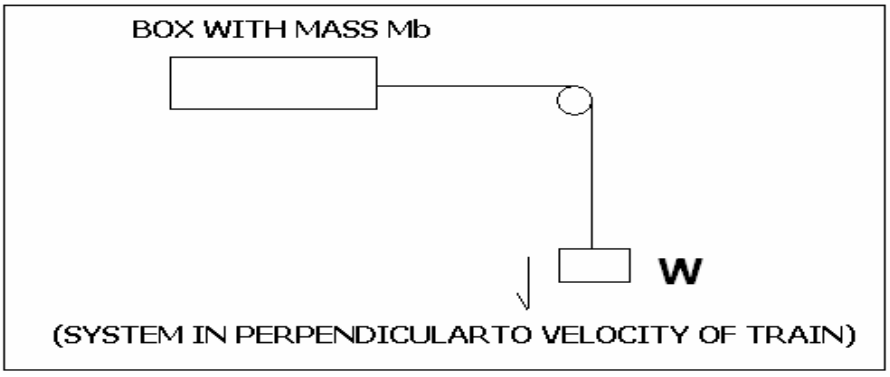
2) For Padre on next station:- He observed that due to relativity, weight of ball decreases to '1/ γ. γ m g =mg' & as string is just sufficient to take force 'mg', String will

not break & ball will not fall on the floor of cabin & Cockroach will not get killed due to collision.

Author thinks that these complete results are against the soul of relativity. Some thing is really wrong in relativity which gives such result & here, observer turned in to creator of event.

During discussion with friends, friend suggested that this is just a theoretical event. This will not happen in real life. **Author thinks that if anything is logically wrong then it is mathematically also wrong. I have proved this in following event.**

Event: - Consider same train & same observer, In Y-Z plane of suspended weight, in train cabin, weight W is suspended from the pulley & thread mounted on pulley goes in side the box of mass Mb from small hole. Consider very, very slow 1 unit displacement of this weight in vertical direction.



1) For man in train cabin:-

Work done by weight = W . 1 =W

As string goes in side the box & weight has done above work on system inside box. Energy related to box increases.

Total energy related to box system becomes = Mb. C^2 + work done on it = Mb. C^2+W

By Principle of strong equivalence in relativity about mass & energy.

Total mass of box system after work done = $1/C^2$. (Mb. C^2 + W)

For Padre on Platform relative mass of this box will be,

Due to relativity mass of box after work done = γ . (Total mass of box)

Hence, Due to relativity mass of box after work done = (γ/C^2). (Mb. C^2 + W)

(For Padre on Platform) = γ.Mb + (γ/C^2) . (W) ---------- (1)

2) For Padre on Platform (same calculation done individually):-

Mass of box system in this frame before work done = γ Mb &

Suspended Weight for padre on platform = (1/ γ) W =W/ γ, here W is suspended weight in train cabin

(This is already mathematically proved)

Work done on the box system = (W/ γ) . 1 = W/ γ

As, 1 unit vertical displacement remains the same after addition of this work.

Total energy related to box system becomes = γ Mb. C^2 + W/ γ

Total mass of box system after work done = $1/C^2$. (γ Mb. C^2 + W/ γ)

(For Padre on Platform) = γ Mb + 1/ (C^2 γ) . (W) ----------(2)

Compare Equations (1) & (2)

Both equations give different results. If relativity is true then both results must be identical.

This clearly indicates that when any theory is logically wrong then it is mathematically also wrong.

(This happens because by principle of energy & mass equivalence, consumption of energy for doing work which is W & W/ γ in different frames must be related by the same way as mass related in different reference frames. This is not happens here, but happens reversely because force decreases for Padre on platform.)

These calculations are true for all forces. At the place of hanging ball we may consider cart on railway platform pulled by old man perpendicular to motion of train. Then also mathematics will be same. Means, due to change in state of motion of observer force changes in such a way that relativity becomes wrong.

INCONSIATANCY IN SPECIAL THEORY OF RELATIVITY (PART II)

Author was watching a foot ball match in a ground. Ball & players are moving all over the ground. Author stuck something different. In matter electrons & other particles are also moving randomly & vibrating all over the matter similar to players in the ground. (Similar to gas molecules in a box) This random velocity increases individual mass of particle; which increases total mass of matter.

When this matter moves with relative to other observer, mass of matter again increases due to relativity. Author considers that at the place of total matter if we consider each individual moving particles in matter & if we consider relative increase in mass of each particle individually & sum the all relative masses with relative to observer, we will get relative mass of matter A with relative to observer. Means, relative cumulative mass of each constituent of matter A is equal to the relative mass of matter A with relative to the observer. To calculate such individual mass of particles is impossible in real world. So, Author created similar situation.

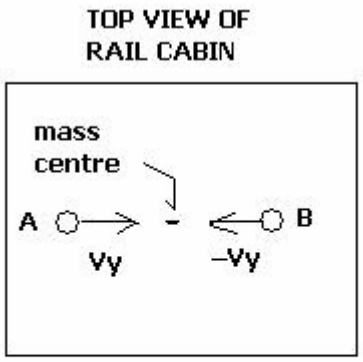


fig (1)

Consider cabin A of train moving with relative to the man on platform with velocity Vx. Consider at the centre of mass of cabin horizontal metal plank is fixed in such a way that this plank is perpendicular to velocity of train. On this plank two balls

of same mass are moving in opposite directions with velocity Vy from same distance in such a way that centre of zero moment of cabin is same as centre of mass of cabin.

Part 1 :-

Let us, consider mass of each ball (at rest) = mb

Consider 'rest mass' of cabin A excluding two ball = mc

Then, Total rest mass of cabin including two balls,

$Mr = mc + 2 . mb . \{1/(1-Vy^2/C^2)^{0.5}\}$-------(1)

This mass will act at the centre of mass of train cabin which is also a point where summation of total moment of substances in cabin is zero.

When this cabin A moves with velocity Vx with relative to man on platform.

Mass of cabin with relative to man on platform = $Mr. \{1/(1-Vx^2/C^2)^{0.5}\}$

By equation (1) put value of Mr

Mass of cabin with relative to man on platform with two balls= $[mc + 2 . mb . \{1/(1-Vy^2/C^2)^{0.5}\}].$

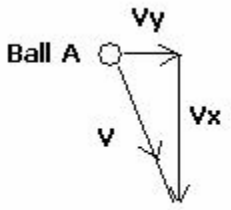
$[1/(1-Vx^2/C^2)^{0.5}]$

$= mc . [1/(1-Vx^2/C^2)^{0.5}] + 2 . mb . [1/(1-Vy^2/C^2)^{0.5}].$

$[1/(1-Vx^2/C^2)^{0.5}]$

----------equa (2)

Part II :- <u>Each individual moving matter is taken separately for man on platform.</u>



Vector diagram

Now, consider relative mass of balls & cabin separately with relative to man on platform.

Relative mass of only cabin= $mc . [1/(1-Vx^2/C^2)^{0.5}]$ ----------(a)

Velocity of each ball with relative to man on platform is sum of velocity Vx & Vy in perpendicular direction.

So, Relative velocity of ball with relative to observer on platform = $(Vx^2+Vy^2)^{0.5}$

Relative mass of each ball = $mb . [1/\{1-(Vx^2+Vy^2)/C^2\}^{0.5}]$ ----------(b)

Total relative mass of cabin with balls =mass of cabin+2 x mass of individual ball

$$=eq(a) + 2\ eq(b)$$

$$= mc\ .\ [1/(1-Vx^2/C^2)^{0.5}]+2\ .\ mb\ .\ [1/\{1-(Vx^2+Vy^2)/C^2\}^{0.5}]$$

----------(c)

As eq(2) & eq(c) gives same mass of cabin with balls, so R.H.S. results can be equated

i.e. $mc\ .\ [1/(1-Vx^2/C^2)^{0.5}] + 2\ .\ mb\ .\ [1/(1-Vy^2/C^2)^{0.5}].\ [1/(1-Vx^2/C^2)^{0.5}] = mc\ .\ [1/(1-Vx^2/C^2)^{0.5}]+2\ .\ mb\ .\ [1/\{1-(Vx^2+Vy^2)/C^2\}^{0.5}]$

$$[1/(1-Vy^2/C^2)^{0.5}].\ [1/(1-Vx2/C2)^{0.5}] = [1/\{1-(Vx2+Vy2)/C2\}^{0.5}]$$

$$(1-Vy2/C2)^{0.5}.\ (1-Vx^2/C^2)^{0.5} = \{1-(Vx^2+Vy^2)/C^2\}^{0.5}$$

$$(1-Vy^2/C^2)\ .\ (1-Vx^2/C^2) = \{1-(Vx^2+Vy^2)/C^2\}$$

$$1- Vy^2/C^2-Vx^2/C^2+(Vy^2/C^2).(Vx^2/C^2)) =1-Vx^2/C^2-Vy^2/C^2$$

$$(Vy^2/C^2).(Vx^2/C^{2)}) =0$$

$$Vy^2.Vx^2 =0$$

$$Vy.Vx =0$$

But as Vy & Vx are not zero. Vx. Vy is not equal to zero.

So, L.H.S. is not equal to R.H.S.

This will create inconsistency.

Expansion of universe :-

1991, when Author was studying in Engineering College at Nanded. He met H.O.D. of Physics in science college, Nanded. During discussion H.O.D. said that distinct galaxies are accelerating away from us with velocity more than light. Author said that this is against theory of relativity.

H.O.D. said," World is expanding & as space is expanding any two points in that space moves away from one another automatically. This is not forced acceleration."

Author said," As per big bang theory, the world started from point. Some substance moves so much distance away from one another due to expansion & some substance like distance between atoms in molecule remain at same distance. In any matter distance between two elementary particles remain at same distance. Now, we are on conveyor belt moving away from one another and to remain at same distance every particle has do work against this expansion motion continuously. If force of attraction between particles is

responsible for this same distance then that force will have to do work against this expansion motion continuously & as this time, length of this world is relatively infinite, whole energy of every elementary particle in universe has got exhausted by doing work against expansion of world until now & to keep near matter together."

H.O.D. just stopped & asked Author to meet next day, When Author met him he said, "There is dark energy that pull this galaxies away from one another."

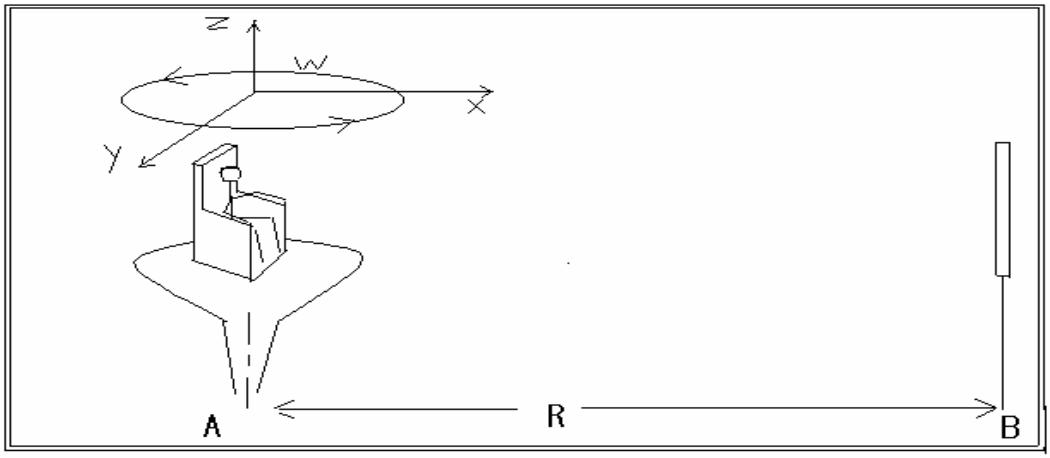
Author said," then this is force acceleration. If dark energy exerts forces on galaxies & pulling it away from one another with velocity more than light then that is against relativity. & now only galaxial distance will increase which is the fact."

H.O.D. was relativity lover & get angry.

Author has seen same anger some time from relativity lover.

Chapter-2

RELATIVE VELOCITY MAY BE MORE THAN VELOCITY OF LIGHT?



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. $W = 2\pi/T$)

Then linear velocity of clock at any instant will be

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

Consider, W = 1 rad / s

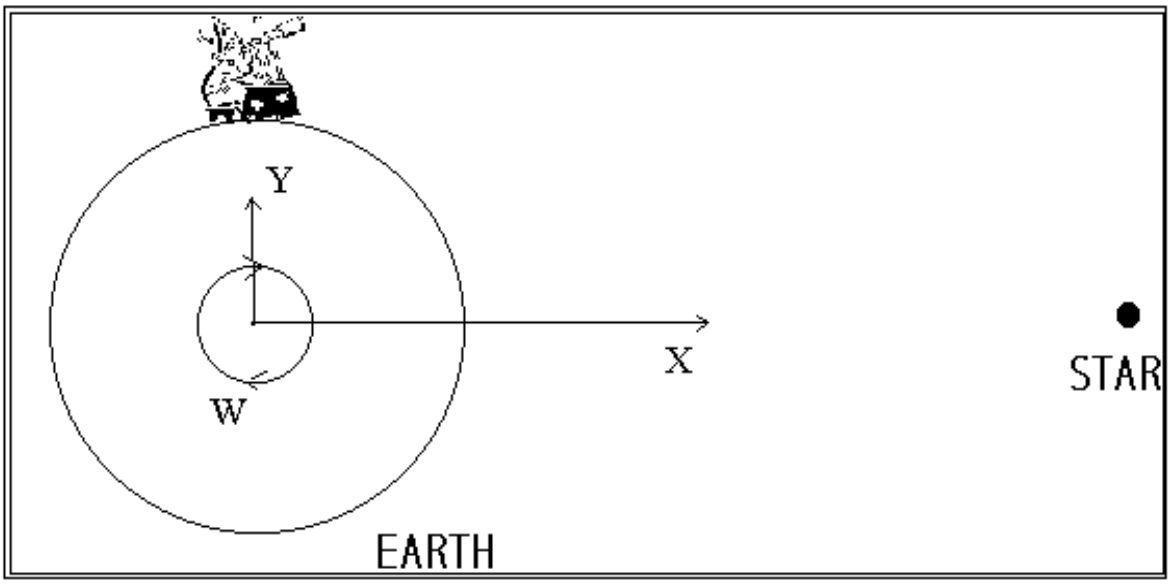
Then, V = R

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

$$V = R \cdot W \text{ ----------(1)}$$

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

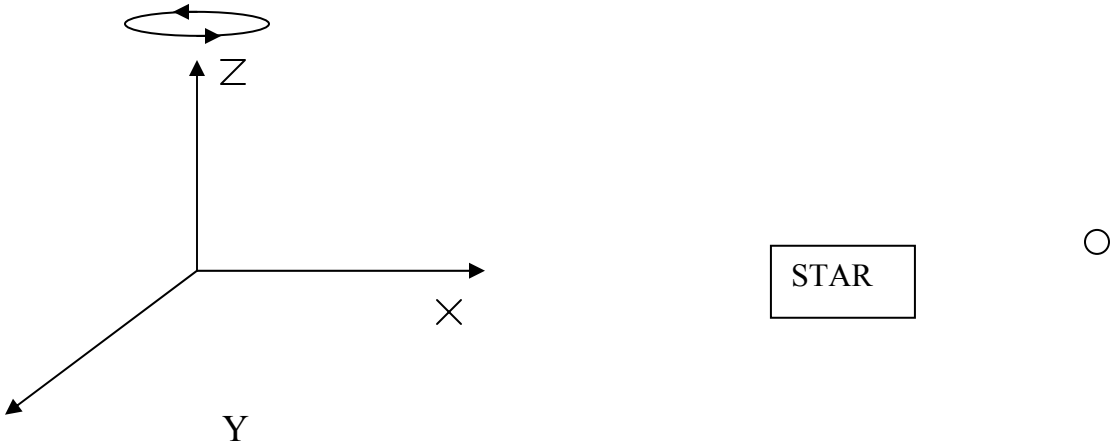
$V = 7.326 \times 10^{12}$ m/s > C

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 x 10^{12} m/s i.e. 9000 times more than light velocity C.

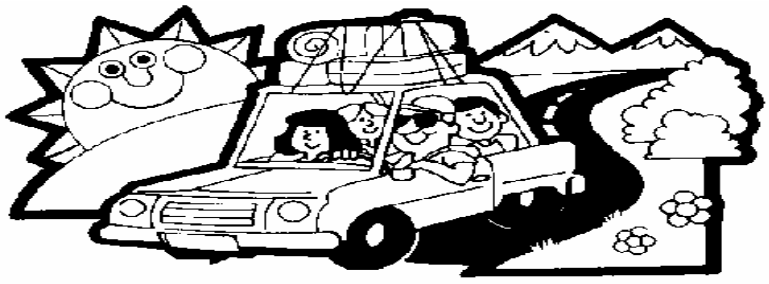
Means, for man on the earth every star is moving with velocity more than light velocity. But also, we can see stars.

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 did not believe in relativity. From the first day I have started learning relativity.

Some says that this revolving frame is non inertial frame of reference. I answer that in next chapter.



CHAPTER 3

ABSOLUTE INERTIAL REFERENCE FRAME IS A RELATIVISTIC CONCEPT

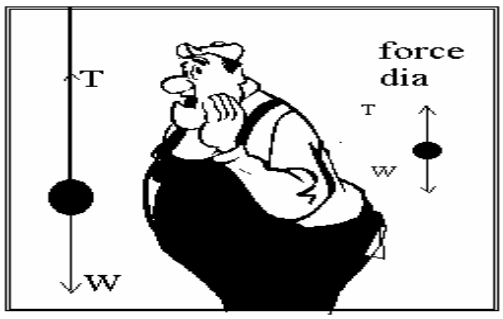
In this world, on every object many forces are acting like magnetic, charge, gravitational, which gives out other forces like frictional, cohesive etc. In Einstein's relativity, inertial frame of reference is important. In inertial frame of reference no external force is acting on matter, so acceleration is absent. This is wrong assumption; some force is always acting on every substance. Only some time we feel no force is acting and we are in inertial frame of reference but why such thing happens. I answer to this question below.

When I see this nature. I find one very interesting thing i.e. resultant force acting on each body is zero.

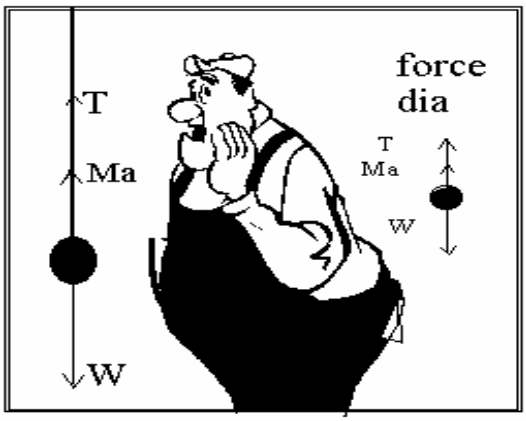
i.e. summation of electrical, magnetic, gravitational, frictional, cohesive, directly applied force or force due to acceleration = 0

You may take anybody. We see that this thing is correct. For example, consider a ball of mass M is hanging to the roof of cabin as shown in figure. Then, in this case two forces are acting on the ball. One is its own weight acting in downward direction. [As shown in figure] and other is tension in upward direction.

So, T – W = 0 ----------[1]

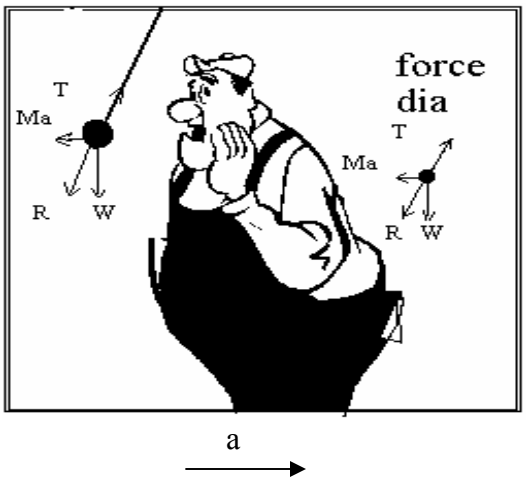


SECOND CASE: - Now, consider cabin is accelerating downward towards earth by acceleration a. Then, we fill that weight of ball decreases.
Because, here accelerating force is acting with tension.



$W = M a + T$
$W - M.a - T = 0$
i.e. resultant force = 0 ----------[2]

THIRD CASE: - now consider that cabin is accelerating horizontally by acceleration a then



$T = R$ [R is the resultant of M a and W]
i.e. $R - T = 0$
i.e. resultant force = 0 ----------[3]

These all three considerations and other considerations like any substance place on earth surface or any rocket or any satellite or earth itself.

Every time we will find total resultant force acting on each matter in the world is zero.

We feel the weight of body only when frictional force, tensional and compression likes other material forces, cohesive force act on the body with other forces.

Why does anybody accelerate?

We know on each body
Total resultant force = 0

i.e. forces are well balance but as any new force act on body. This balance state of forces must get disturb & it will accelerate in direction of that new force & again force of acceleration will form which will balance this new force.

i.e. new force = (acceleration a) M

(Acceleration with relative to first state)

So, new force = M.a

OR

I express it in another way.

Any body in the world accelerates with relative to previous state when any new force act on body. Only to balance this new force.

OR

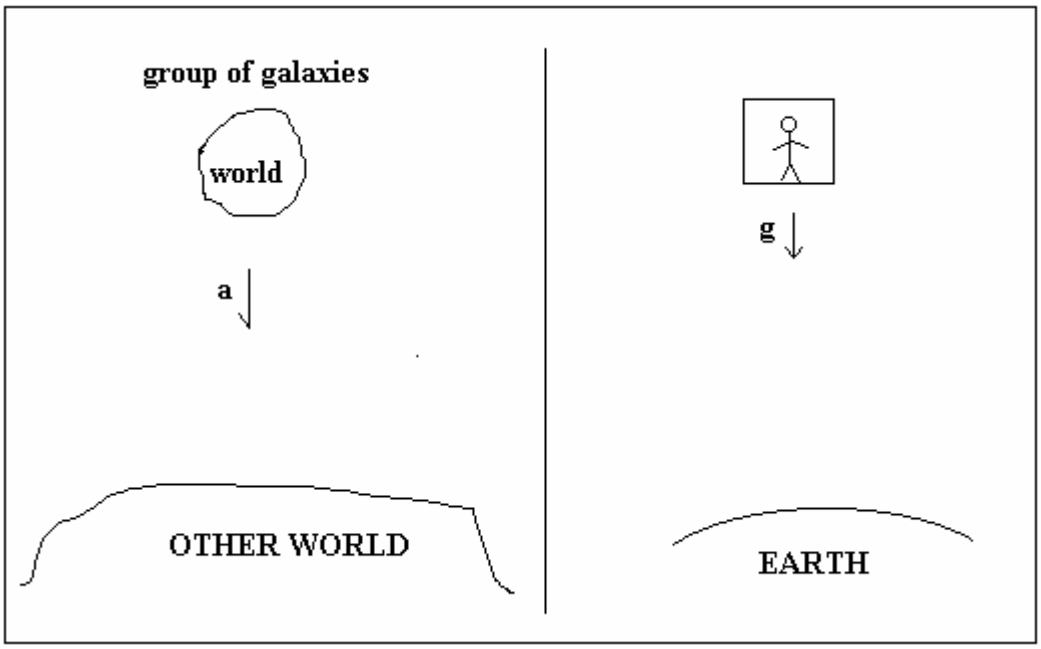
To make resultant force i.e. F = 0
Acceleration takes place in world.

(For every action there is equal & opposite reaction--- By Newton)

IS THIS WORLD UNIQUE IN THIS SPACE?

Is this world unique in this space? We can't answer this question exactly but as space is spread beyond our thoughts and reach (till now).

There may be any other big world also in this space. Now consider (this world may have any shape as shown in fig) one more big world is present in this mega world. What will happen? Due to its gravity, this our world must get accelerate towards this big world. (Also big world towards our world)



Then what will be the effect of this acceleration of our world on stars or planets?

For this, consider a man in totally closed cabin (completely) falling freely towards earth, under earth gravity. As man is in totally closed cabin and no light inside it, **Man feels that no force is acting on him (weightless) and he see a dark back space all around him.** If you ask any thing about him, he will say, "I am in big dark space no force is acting on me, I am stable."

Means, this acceleration of cabin or world with relative to earth or any other world will not affect the stableness of object (object may be man or star or any) in side cabin or world respectively. (As in free acceleration, acting force is balanced by accelerating force.)

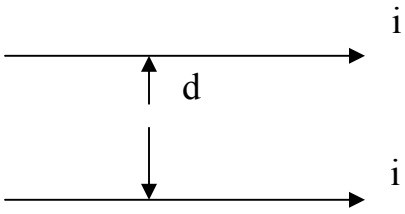
This shows that absolute acceleration or absolute stableness, these considerations are totally wrong. (Above thing may be happening in this space but limit of man is much small. Other worlds may be present in space and as before centuries we was saying our galaxy is only world. Now, we are saying our world is only the world. Tomorrow we may say our world is the part of mega world.) Because acceleration motion is totally relativistic concept. Even world may be accelerating with other world (or any galaxy with other galaxy.) but this acceleration will not cause any effect inside the world. So, we can consider that the world as stable but with relative to us only not absolutely.

After this discussion this become very clear that absolute inertial frame of reference is not present in the world.

CHAPTER NO.4

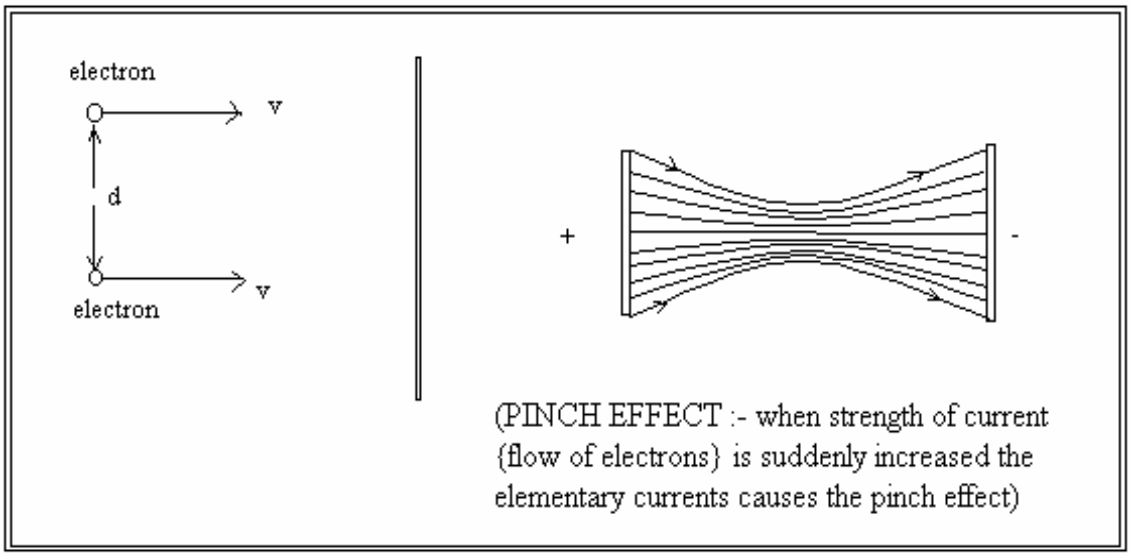
IN TWO REFERENCE FRAMES, WHICH ARE MOVING WITH CONSTANT RELATIVE VELOCITIES, ONE FRAME IS SPECIAL

One day when Author was in Bsc. Lecturer of electronics was teaching a lesson. He said that if current is flowing through wires, which are parallel to one another and in one direction. Then both form the magnetic fields around themselves & due to that there is magnetic attraction between these two cables.



Author struck some thing different. What is mean by current? It is the flow of electrons through both the cables.

After the speech was finished, he asked one question to the lecturer.



"In place of cable if there are only two electrons flowing in one direction parallel to one another at a distance d from each other, (here, V is the velocity of electron on earth) then what will happen?" Lecturer told that this is similar to above problem. Both electrons will form magnetic fields in such a way that there will be magnetic attraction between these two electrons. (Just like magnetic attraction between two cables).

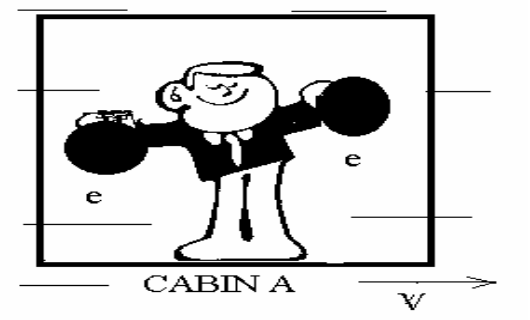
Now, Author asked another question, if these two electrons are flowing with velocity V relative to Earth and for second, if we forget about the presence of Earth or for second consider earth is disappear. Then, what will happen?

Then, for a second, there will be nothing with relative to which I can measure velocity of each electron, which is V. Now, in space there will be only two electrons, which will be stable with relative to one another. Then what will happen?

1) Magnetic field will disappear which is formed due to velocity of each electron with relative to Earth. OR

2) New magnetic field will be form due to other different velocities of the electron with relative to other Stars or Sun or other Planets or observers etc.

Now, to understand everybody Author generalizes this problem.



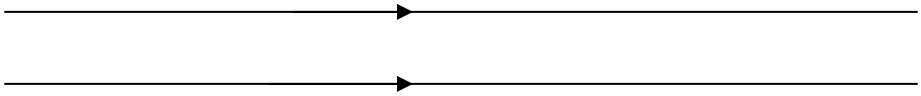
Let us consider railway cabin A moving with velocity V on Earth. In the cabin there is observer holding two balls which

has charge ‘e’ & at a distance ‘d’ from each other. Then, from above solution, magnetic field will be form due to motion of charge ball with velocity V on earth & there will be magnetic attraction between these two balls. If velocity V increases magnetic attraction will also increase.

But, question is that this cabin has different velocities for different objects in world. For example, for observer in cabin, velocity is zero so magnetic attraction will be zero. For some airplane with tremendous velocity, this magnetic attraction will be tremendous & with relative to some other particle with infinite speed, this attraction will be infinite.

EINSTEIN SPECIAL THEORY OF RELATIVITY

Author has searched for solution of this problem with Special theory of relativity. This is solved by length-contracted by the Lorentz factor in case of problem of current moving in parallel cables.



They consider one electron or test charge in second cable & free electrons in first cable moving in one direction.

As electrons in both cables are at same state of motion distances between electrons remain same but length of first cable which is at relative motion with test charge or electron in second cable get contracted. Hence positive charges in first cable get more contracted & test charge or electron in second cable get attracted towards first cable due to contraction of positive charges in first cable.

PROBLEMS IN THIS SOLUTION

In this solution contraction of length of first cable is only consider. If Einstein’s relativity is true then in that frame of reference of test electron or charge, Length of both cables will get contracted. This contraction of positive charges in both cables in that reference frame will repel the both cables away from one another due to

repulsion. As in that reference frame density of positive charge in both cables increases due to length contractions.

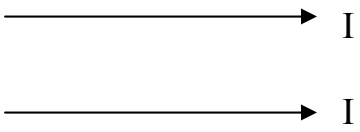
Here, relativity has not solved the problem but create the problems.

This entire problem can be solved by considering that for every object there is one special frame of reference is present. Charge will form magnetic field when it move relative to that frame only.

For particle in earth's gravity, special frame of reference is earth it self & for particle in cable special frame of reference is cable it self.

Author thinks, this is the only solution of this problem. It is necessary to fix some special relative frame to these electrons. I call this frame of reference as local frame of reference. This theory is discussed in separate chapter.

MATHEMATICAL MODEL



WHAT WILL BE THE AVERAGE VELOCITY OF EACH ELECTRON IN CABLE?

To find this velocity consider both cables are completely identical.

Average velocity of each electron = V

Number of free electrons present in unit length of cable which contribute in flow of current = N

Charge of each electron = e

So, total charge of free electrons in unit length of cable which contribute in flow of current

$$Q = N\ e$$

But we know, current is the rate of flow charge.

$$I = Q\ .\ V$$

$$I = N\ .\ e\ .V$$

Therefore, $V = I / N\ .e$

Means, if in two parallel cables current I is flowing. Then, this is mathematically equivalent to two clouds of electrons of charge $Q = N\ .e$ moving with constant and equivalent velocity $V = I / N\ .\ e$ in both the cables. [Here, both clouds are stable with relative to one another due to same velocity and same direction.]

New quantum theory

Chapter 5

WHAT IS MATTER & DARK MATTER MADE UP OF?

This paper was written due to following questions

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, some one 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 some thing 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.

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.

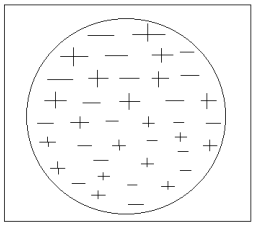
THEORY

I think this whole world is made up of two very very small particles 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 $\propto$ (no. of energetic particle present in it)

i.e. $E \propto N$ --------- (1)

And as elementary particles are made up of energetic particles.

Mass of elementary particle $\propto N$

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

From equation (1) & (2)

$E \propto M$

i.e. $E=K M$ ----------(3)

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).

i.e. K M = E linear + E angular

as, E linear = E angular

K M = 2 . E linear = 2 . (½. M C^2) = M C^2

Therefore, K =C^2 ----------(5)

From (3), (4) & (5)

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

And, M C^2 = E charge + E mag + E kin + E 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.

$E = \sqrt{m^2c^4 + c^2p^2}$ 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

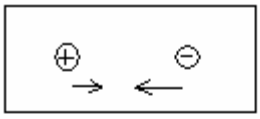
Only thing is that to consider photon as bundle of energy is not required}

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.

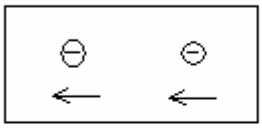
Wave nature of particle

(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)

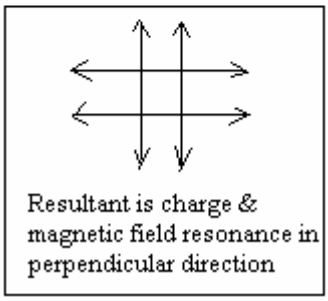
Author thinks that size of energetic particle is very small & every energetic particle is surrounded with very strong electric charge field whose size and reach is much more than particle size. This is some thing like packets of +ve & -ve charges living together. Due to attraction and repulsion between 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

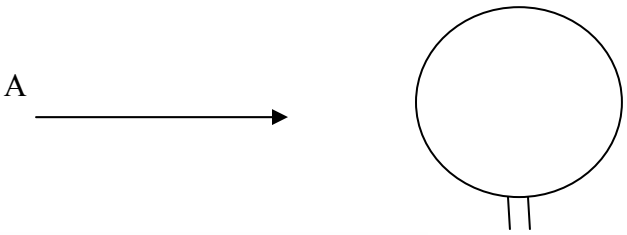


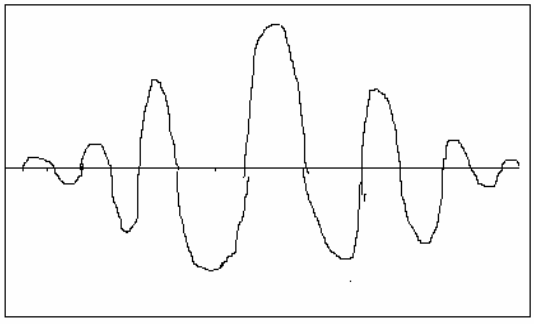
Equivalent picture is same charge is vibrating in same direction



(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

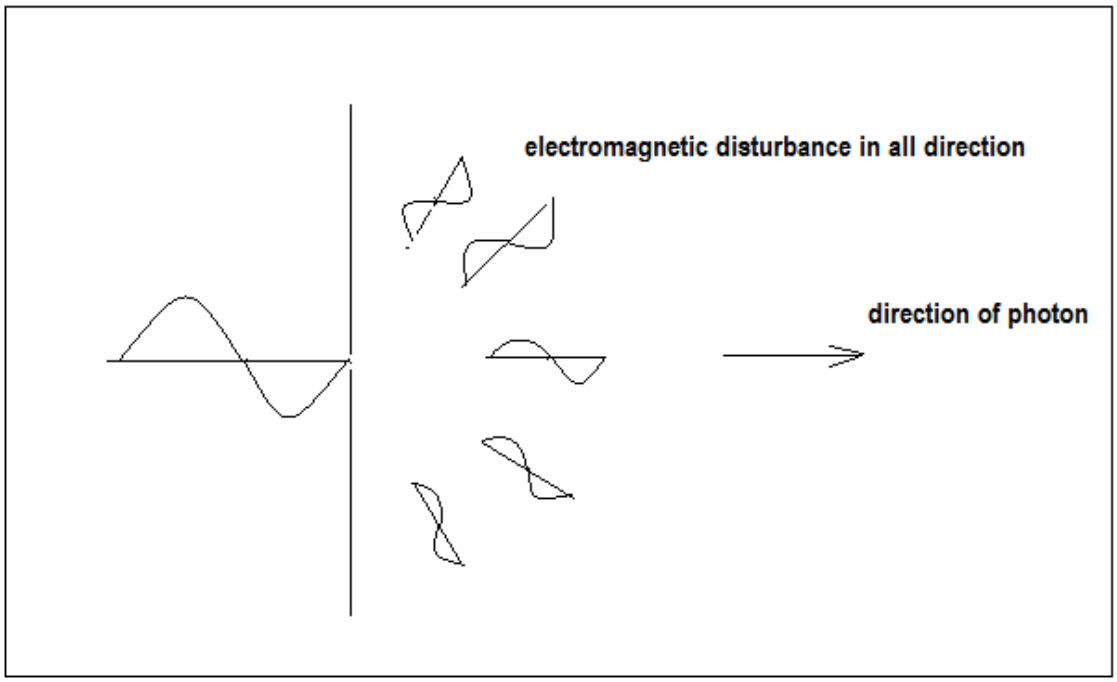




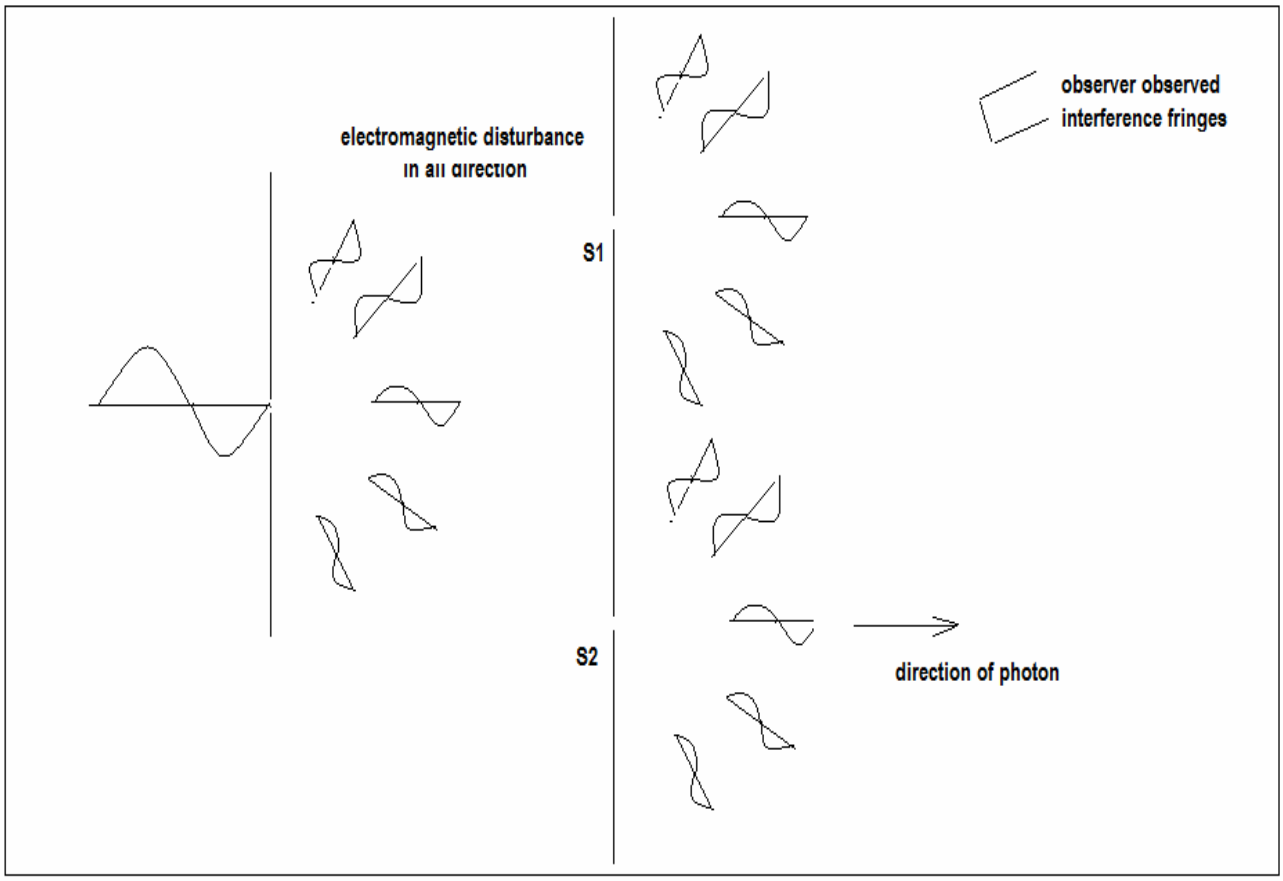
Wave Signature

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.

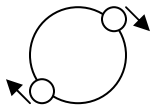
In dark matter which is explain below this wave nature is absent because it is made up of only two +ve & -ve energetic particles. Both energetic particles behave independently to form basic stable structure of world. This is called dark matter.

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	**Dark matter**
1) Absorb & discharge electromagnetic radiation.	1) This matter is most stable matter & not interacts with any radiation.
2) Made up of elementary particles, which are made up of energetic particles.	2) Directly made up of two independently revolving energetic particles. So, very simple structure & Quantity of this matter is much more.
3) Any matter cannot move through other solid matter.	3) Particle size of this matter is so small that it can easily move through any solid matter.
4) Molecules of matter interact with each other & bond is form between these molecules to form matter.	4) Every particle act independently. There is no interaction or bond between two particles. Even single particle will float independently.
4) This matter is visible matter.	4) Only gravitational effect is visible.

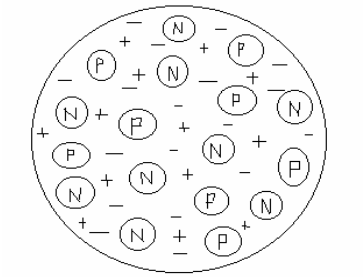
Black hole: - In black hole mass of star get compressed in very small area. First matter formed by compression is high-density matter. When due to high gravity this state of matter also get collapsed & only state of matter remains is dark matter. In this dark matter very high energy is well balanced 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.

Big bang: - 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 when this dark matter get collapsed & then the very high explosion occur. This creates big bang effect.

NATURE OF ATOM

NUCLEUS: - 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. This state is responsible for nuclear forces, which bind nucleus in one piece.

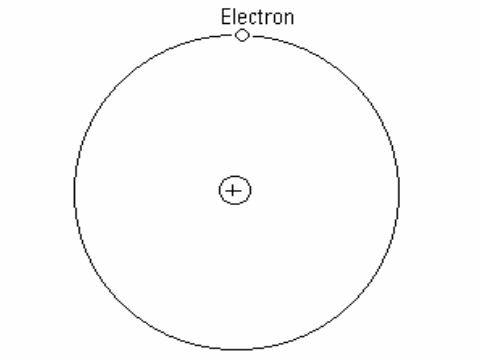


ELECTRON: - electron moves around nucleus in some fixed orbit. It is also made up of energetic particles but when any photon is added to electron. The numbers of energetic particles are also increases. We know for electron,

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

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 charge + E mag) ----------(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 = ½.M .V^2 + E angular kinetic ---------(2)

From (1) & (2)

½.M.V^2 = M. C^2 – (E charge + E mag + E angular kinetic)

But if (E charge + E mag + E angular kinetic) < ½.MC^2

Then, ½.M.V^2 > ½.M. C^2

SO, V > C

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

Suppose proton & proton get collide

$$P + P \longrightarrow P + P + P + \bar{P}$$

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

And when P & N collide

$$P + N \longrightarrow P + P + \bar{\pi}$$

$$P + N \longrightarrow P + N + \pi + \bar{\pi}$$

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. C^2 + Mb. C^2 = Mc. C^2 + Md. C^2 + Me. C^2 + Mf. 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,

Extra +ve or –ve Extra +ve or –ve

Charges before reaction = Charges after reaction ----------(2)

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

$$P + P \longrightarrow P + P + P + \bar{P}$$

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.

Other problems solved by this theory are explained in the end chapter of this book.

(Energetic particle may be formed by small high repulsive field surrounded by very high attractive field & 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.)

Chapter -6
LOCAL THEORY OF RELATIVITY

I personally think that Einstein's special theory of relativity is wrong because

1) Absolute inertial frame of reference is not possible: - In Einstein special theory of relativity, velocity of light is constant in inertial frame of reference. Einstein special theory is completely based on concept of inertial frame of reference. Inertial frame of reference is that frame of reference on which external force is not acting & it is non-accelerating frame of reference.

In world every substance is accelerating with one another. Earth is accelerating, moon is accelerating, sun is accelerating and Galaxy is accelerating. Even as discuss in last chapter after some years, we may find that our whole world is accelerating with relative to some other world.

I may say that in world inertial frame of reference is a relativistic concept. Just in falling lift, man in complete darkness say that I am in a inertial frame of reference because no force is acting on me but in building, people knows that force is acting on person in lift but summation of that forces is zero. If we read my previous chapter then it becomes clear that absolute non-accelerating & inertial frame of reference is not present in world. **Inertial frame** of reference is also **relativistic concept**. In some other frame we may find that this inertial frame is accelerating.

2) Velocities of stars are more than C but we can see that stars & see events happening on them. These velocities will not change geometry & time vector on that objects.

3) Now, it is already proved by me in first chapter that Einstein, special theory of relativity is wrong.

4) It is already proved concept that galaxies at very far distance moves away from our galaxy with velocity more than light velocity.

Due to all above problems, I want to create another theory of relativity call local theory of relativity.

Space: -Space does not have any mining. It is not accelerating or moving with constant velocity, moving or stable, not having any dimension like

length, breadth, height, and volume. We cannot say that schoolboy going to school with Tiffin is going to school with space in Tiffin.

Presence of Big gravitational mass like earth, moon, stars etc gives mining to this space.

Local Theory of Relativity: - If we consider only –ve charged electrons of earth then their will be very high electromagnetic field with gravity will present around earth but we do not find this field because opposite +ve charge field due to protons is present their. These two opposite fields balance each other & just nullify each other's effect.

Means around each large mass in universe there is very high balance electromagnetic flux is present with their cumulative gravity. This will act as there local frame of reference. For every object there is one local frame of reference, which acts as primary frame of reference for that object. If that object is elementary particle or photon then kinetic energy, momentum is primarily act with relative to that frame of reference. That object even contributes their mass to that system.

For example, electron in cable represents their kinetic energy, momentum with relative to cable frame of reference, Person on earth or particle on earth represents kinetic energy, momentum with relative to earth because this is their primary reference frame. I called this as their local frame of reference.

When earth moves in space around sun. Mass of substances & radiations on it or mass of moon contributes to earth system. So, earth system is the local frame of reference for moon, substances & radiations on earth.

Gravity of substances on earth contributes to this local system of gravity i.e. earth gravity as whole. This represent primary frame of reference for the substances on earth. Even elementary particle in this local system represent their kinetic energy with relative to earth.

Photon of light is also representing their kinetic energy with respect to this local system. Also light's electromagnetic vibration happens with relative to earth, as vibrating magnetic field form due to vibration of charge relative to earth gravity. So, photon has constant velocity C in all direction in earth gravity.

SPACE IS NOT EVEN EVERYWHERE.

Every planet has its local frame of reference. For example, moon has its own local frame of reference, For moon earth frame of reference act as its local frame of reference, For earth, sun gravity acts as its local frame of reference & for sun gravity of milky way galaxy acts as its local frame of reference etc.

This local frame of reference theory will solve above problems. Now, motions can be divided in to **apparent motion & actual motion,**

1) Velocity of every star on equator is more than C :-

   This velocity is apparent velocity. If we try to find out state of motion, velocity & acceleration of object in one local frame with respect to the object in other local reference frame then results will be much more complicated.

   That happens when we measure velocity of other stars with respect to man on revolving earth & find that this velocity is more than C. This is wrong & must get complicated results because both has different local frame of references & cannot be mixed.

   We cannot fixed frame of reference on earth & observe motion of other planet like Jupiter or vice versa. I may be complicatedly accelerating with respect to moon of Jupiter but as my local frame of reference of motion is different. Force of that complicated acceleration will not act on me. These motions are apparent motions.
2) Inertial frame of reference is not required to consider because according to me, inertial frame of reference is completely relativistic concept as explain above.
3) Now light can be accelerated or decelerated in laboratory. This cannot be explaining by relativity. This theory with previous theory of energetic particle can explain this because in previous chapter velocity of one particle Tachyon is already explained whose velocity is more than C. This theory of local frame of reference only says that kinetic energy of photon get express with relative to earth or earth gravity and in previous chapter it is explain that total energy of any particle is MC^2. As explain in first chapter for Photon

   E linear kinetic energy + E angular kinetic $= .M .C^2$

   & E linear kinetic energy = E angular kinetic $= .1/2\ M .C^2$

So, if we force to accelerate photon then only for temporary

E linear kinetic energy > E angular kinetic energy this condition forms for some time. At that time

E linear kinetic energy > 1/2 M .C^2

1/2 M .V^2 > 1/2 M .C^2

.V >.C

Velocity of light pulse> C

In same way if we force to light photon then for temporary

Velocity of light < C

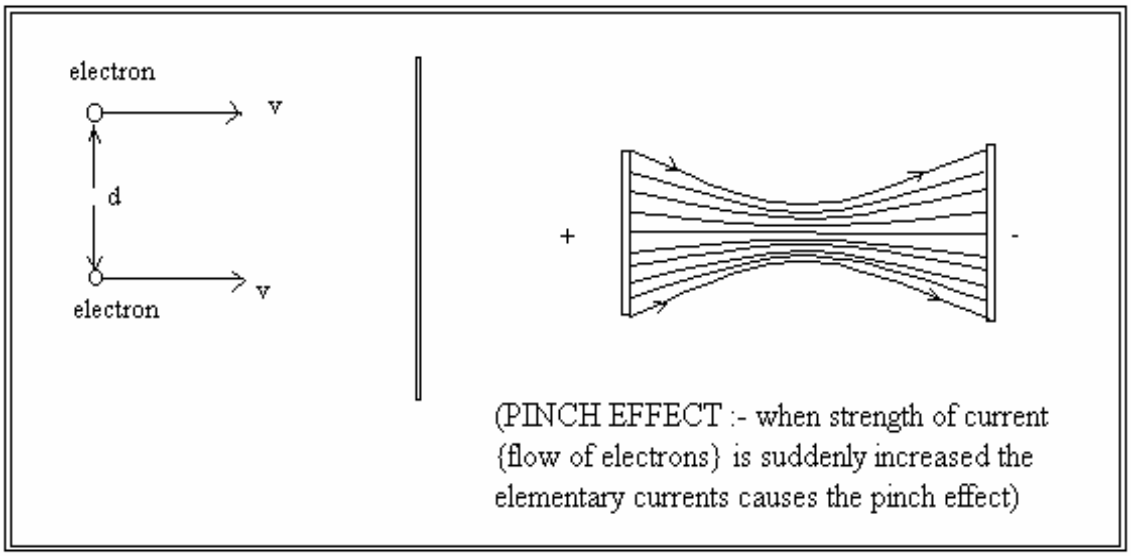
4) **<u>Experimental evidence for this theory</u>**: - If electron is moving through space then this motion of charge of electron with relative to observer will produce magnetic field. If observer will move in direction of motion of electron then this relative velocity of charge of electron with observer will decrease. So magnetic field produce by electron must also be decreases. If this velocity of observer is equal to velocity of electron then for observer, electron will be at rest and magnetic field will not from due to motion of charge of electron.

You may say that this is impossible. Observer cannot move with electron to find that electron has not produces magnetic field. This is possible when second observer is other electron. If several electrons are moving with same velocity in one direction then for every electron other electron will be at rest and will not form a magnetic field. As observer (one electron) & other electron will be at rest.

But this is wrong if several electrons moves towards one direction with same velocity & may be stable with relative to one another then also magnetic field is form & one electron get attracted towards another electron (which is at rest with respect one another). This is called pinch effect.

This clearly indicates that earth act as special reference frame for substance or radiation on earth & motion of charge particle

with relative to earth is more important that **velocity of charge particle with relative any observer**. This experimentally proves that local theory of relativity proposes by me is true.



This clearly indicates that local frame of reference is present on earth and that frame is represented by earth gravity which is effect of accumulation of all gravities of substances & particles on earth.

Light photon represent it's velocity with relative to earth gravity because magnetic signature can be done by photon on earth gravity only. This is reason why in Mickelson Morley experiment velocity of light is equal in all direction.

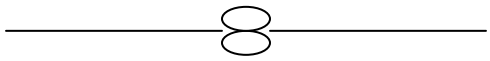
Space does not have any meaning until some big gravitational matter is near to it. That create reference frame.

CHAPTER 7

PROBLEM SOLVED BY RELATIVITY CAN BE SOLVED BY OTHER WAY.

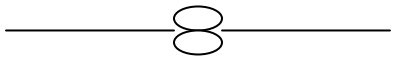
1) Why is velocity of light equal in all direction on the earth surface? (Mickelson Morley experiment)

I think that every elementary particle express its kinetic energy with relative to their local frame of reference i.e. gravitational field of earth. So, velocity of photon is constant in all direction on earth surface.



2) Why does light bend due to gravity of sun?

This is very simple. As light photon is material particle, on it gravity of sun acts which bends the path of it. Many say Photon is not particle because its rest mass is zero. I have not seen any rest Photon. So this problem is not arising.



<u>First approach for some relative problems: - Consider mass & time is relative</u>

1) Relation of time & field: - It is possible that gravitational force or electromagnetic flux not only create reference frame but also have effect on time. So, near to earth event slows down. It is not due to relativity but due to property of fields. It is also possible that when we move through field time may slow down. This may be reason for slow speed of light when it moves

through other medium like in glass. As field in matter is strong then time slows down. These are possible area for further research.

2) Relation of mass & field: - It is possible that Hibbs field is formed due to interaction of electromagnetic flux of matter with flux & gravity which acts on it. For example matter at rest or at constant velocity on earth will form some fixed Hibbs field due to interaction of its field with earth's field. When matter accelerates this interaction increases & more Hibbs field is form. This creates concept of rest mass & inertial mass of substance i.e. Hibbs field is form when matter is at rest & it increase when velocity increases as interaction between fields increases. This may be reason for substance opposes to change the state of motion because that increases or decreases Hibbs field.

Second approach: - Consider mass & time is not relative. I try to solve some problem in this way also. (Truth will be somewhere in between)

3) Why does mass of electron increases with increase in velocity? & Why does its velocity cannot be increase up to light velocity?

In accelerator, charge & magnetic forces act on electron, which accelerate electron. Here, it is found for same acceleration, force requires becomes more & more as velocity of electron increases.

To explain this, we should know we could accelerate electron in two ways.

i) By adding photon.

ii) By acting some external forces.

In adding photon, as number of energetic particles in electron increases, mass increases. So, M. C^2 increases & indirectly kinetic energy increases. So, this is a natural way to increase velocity of electron.

In second case, we act force on it to accelerate. Means, this acceleration is force acceleration. (As we compress any spring forcibly from its stable state)

If when no force acts on electron. Then for electron

Total energy (fixed) = M. C^2 = E kin + E charge + E mag + E pot

But, if force act, linear kinetic energy is forced to increase & ultimately as other energies are constant to balance M. C^2, internal kinetic energy is forced to decrease from its original stable value (& ultimately, magnetic energy due to cumulative spin of electron get disturbed)

Means, by acting force on electron, we are only disturbing electron from its stable state. (i.e. state when no force is acting) and electron opposes this forced change from stable state & this oppose increases with increase in velocity (i.e. increase in linear kinetic energy) and we find that as velocity increases F/a ratio increases.

But, actually in forced acceleration F/a ratio increases is not due to increase in matter but due to oppose to internal changes in side the electron which is given above.

And for photon, velocity is C when E charge = E mag = E pot = 0

& Total energy = kinetic energy = M. C^2

But, for electron E charge, E mag, E pot cannot be zero. So, total energy cannot be express as kinetic energy. So, velocity of electron cannot be increases up to velocity of photon i.e. C.

4) Why does lifetime of some elementary particles increases as velocity increases?

My question is why does any elementary particle destroyed or split without action of any external force or impact?

If we see carefully, we find in case of elementary particles, external force may not present but internal forces are present, which can split elementary particle i.e. cumulative spins, vibration form due to internal kinetic energy of particles & this energy is not small. For example in case photon, by previous calculation ½ M. C^2 is an internal kinetic energy & by elementary equation of elementary particles.

Total energy (fixed) = MC^2 = E linear kin + E internal kin + E mag + E charge + E pot

Here, if we increase linear kinetic energy (i.e. velocity) of any elementary particle. Then, to make total energy equals to M. C^2. Internal kinetic energy is forced to decrease.

Due to this, internal destructive force i.e. splitting forces decreases.

As splitting force decreases by increasing velocity, lifetime of elementary particle increases by increasing velocity.

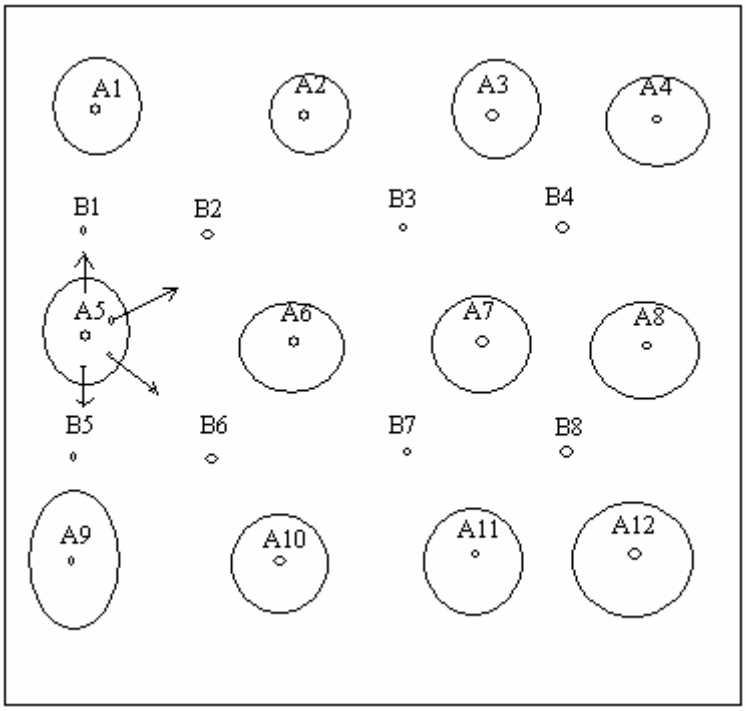
CHAPTER 8

WHAT IS DARK ENERGY?

Why does this thought come into existence? : - If we throw some ball into sky, velocity of that ball will decrease due to earth gravity. If this world come into existence due to big bang then galaxies moving away from one another must slowing down but it is found that they are moving away with more & more velocity.

This is contradicting to the general thoughts of physics. Why are these galaxies accelerating away from one another? Now, physicist considers that energy which is pulling these galaxies away as dark energy.

My thoughts: - (1st possible force) Any energy cannot be considered without mass or matter. In 1988, when I was discussing with Dr. Ram Mohan Rao, I said that size of this world would be much more than our thoughts and reach. Just consider that I was true & world is much and much bigger.



Let, consider A1, A2, A3, A4 …….A11, A12….. are the focal points on which big bangs has happen previously. Then matter **will not** go back to previous focal points. Now, dark matter, other matter will start accumulating at some other points B1,B2,B3…..B7,B8… or these are new focal points on which big bang will happen in

future due to accumulation of mater. This means B1, B2, B3…. are the new mass centers of these world now.

If this is true then matter form after any big bang suppose A5 will not slow down but will get accelerated towards other different centers of future big bangs. These are new mass centers of the world. Now, galaxies will move towards these new mass centers with more & more velocity due to their gravitational attraction.

I think this is the reason for moving galaxies away from one another with more velocity or accelerating away. These are moving toward different center of masses in universe. (as shown in figure for big bang A5.)

These big bangs keep the world live and world is not collapsing.

Second possible force acting on galaxies may be centrifugal force form due to revolving world. This world, which forms after big bang, may start revolving about their mass center. Now, centrifugal force is acting on every galaxy in this our world. This force is pulling this world outside in mega world. **In galaxies centrifugal force is more but gravity of additional matter i.e. dark matter keep it intact**. In world gravity of dark matter is not sufficient to oppose this centrifugal force on galaxies, so galaxies are moving away with more & more velocities.

What will happen in future?

1) Velocity of photon can be decrease to such a low level that it can be use to store very big data by locking light in small space or in crystal.
2) In experiment of big collision of particles in **Europe**, some matter will disappear completely. This will get converted into dark matter as explain in first chapter.
3) Boundaries of world that we know now will increase & found that we are part of mega world.

4) Energetic particle may be formed by small high repulsive field surrounded by very high attractive field & 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.

'Light may break its own speed limit'

NEW YORK, July 21 (Reuters):- Scientists have apparently broken the universe's speed limit. For generations, physicists believed there is nothing faster than light moving through a vacuum - a speed of 186,000 miles per second. But in an experiment in Princeton, N.J., physicists sent a pulse of laser light through cesium vapor so quickly that it left the chamber before it had even finished entering.

The pulse traveled 310 times the distance it would have covered if the chamber had contained a vacuum. Researchers say it is the most convincing demonstration yet that the speed of light - supposedly an ironclad rule of nature - can be pushed beyond known boundaries, at least under certain laboratory circumstances.

"This effect cannot be used to send information back in time," said Lijun Wang, a researcher with the private NEC Institute. "However, our experiment does show that the generally held misconception that 'nothing can travel faster than the speed of light' is wrong." The results of the work by Wang, Alexander Kuzmich and Arthur Dogariu were published in Thursday's issue of the journal Nature. The achievement has no practical application right now, but experiments like this have generated considerable excitement in the small international community of theoretical and optical physicists.

"This is a breakthrough in the sense that people have thought that was impossible," said Raymond Chiao, a physicist at the University of California at Berkeley who was not involved in the work. Chiao has performed similar experiments using electric fields.

In the latest experiment, researchers at NEC developed a device that fired a laser pulse into a glass chamber filled with a vapor of cesium atoms. The researchers say the device is sort of a light amplifier that can push the pulse ahead. Previously, experiments have been done in which light also appeared to achieve such so-called superluminal speeds, but the light was distorted; raising doubts as to whether scientists had really accomplished such a feat. The laser pulse in the NEC experiment exits the chamber with almost exactly the same shape, but with less intensity, Wang said. The pulse may look like a straight beam but actually behaves like waves of light particles. The light can leave the chamber before it has finished entering because the cesium atoms change the properties of the light, allowing it to exit more quickly than in a vacuum. The leading edge of the light pulse has all the information needed to produce the pulse on the other end of the chamber, so the entire pulse does not need to reach the chamber for it to exit the other side.

The experiment produces an almost identical light pulse that exits the chamber and travels about 60 feet before the main part of the laser pulse finishes entering the chamber, Wang said. Wang said the effect is possible only because light has no mass; the same thing cannot be done with physical objects.

The Princeton experiment and others like it test the limits of the theory of relativity that Albert Einstein developed nearly a century ago. According to the special theory of relativity, the speed of particles of light in a vacuum, such as outer space, is the only absolute measurement in the universe.

The speed of everything else - rockets or inchworms - is relative to the observer, Einstein and others explained. In everyday circumstances, an object cannot travel faster than light.

The Princeton experiment and others change these circumstances by using devices such as the cesium chamber rather than a vacuum. Ultimately, the work may contribute to the development of faster computers that carry information in light particles.

If this news is true then this is big challenge to basic principle of Einstein's relativity. (21 July 1999)

Inconstant speed of light may debunk $E=mc^2$ theory

■ By Michael Christie
SYDNEY, Aug 8 (Reuters)

A TEAM of Australian scientists has proposed that the speed of light may not be a constant, a revolutionary idea that could unseat one of the most cherished laws of modern physics – Einstein's theory of relativity.

The team, led by theoretical physicist Paul Davies of Sydney's Macquarie University, say it is possible that the speed of light has slowed over billions of years.

If so, physicists will have to rethink many of their basic ideas about the laws of the universe. "That means giving up the theory of relativity and E=mc squared and all that sort of stuff," Davies told Reuters.

"But of course it doesn't mean we just throw the books in the bin, because it's in the nature of scientific revolution that the old theories become incorporated in the new ones." Davies, and astrophysicists Tamara Davis and Charles Lineweaver from the University of New South Wales published the proposal in the August 8 edition of scientific journal Nature. The suggestion that the speed of light can change is based on data collected by UNSW astronomer John Webb, who posed a conundrum when he found that light from a distant quasar, a star-like object, had absorbed the wrong type of photons from interstellar clouds on its 12 billion year journey to earth.

Davies said fundamentally Webb's observations meant that the structure of atoms emitting quasar light was slightly but ever so significantly different to the structure of atoms in humans.

The discrepancy could only be explained if either the electron charge, or the speed of light, had changed. "But two of the cherished laws of the universe are the law that electron charge shall not change and that the speed of light shall not change; so whichever way you look at it we're in trouble," Davies said. To establish which of the two constants might not be that constant after all, Davies' team resorted to the study of black holes, mysterious astronomical bodies that suck in stars and other galactic features. They also applied another dogma of physics, the second law of of thermodynamics, which Davies summarises as "you can't get something for nothing." After considering that a change in the electron charge over time would violate the sacrosanct second law of thermodynamics, they concluded that the only option was to challenge the constancy of the speed of light. More study of quasar light is needed in order to validate Webb's observations, and to back up the proposal that light speed may vary, a theory Davies stresses represents only the first chink in the armour of the theory of relativity.

In the meantime, the implications are as unclear as the unexplored depths of the universe themselves. "When one of the cornerstones of physics collapses, it's not obvious what you hang onto and what you discard," Davies said. "If what we're seeing is the beginnings of a paradigm shift in physics like what happened 100 years ago with the theory of relativity and quantum theory, it is very hard to know what sort of reasoning to bring to bear." It could be that the possible change in light speed will only matter in the study of the large scale structure of the universe, its origins and evolution. For example, varying light speed could explain why two distant and causally unconnected parts of the universe can be so similar even if, according to conventional thought, there has not been enough time for light or other forces to pass between them. It may only matter when scientists are studying effects over billions of years or billions of light years.

Or there may be startling implications that could change not only the way cosmologists view the universe but also its potential for human exploitation.

"For example there's a cherished law that says nothing can go faster than light and that follows from the theory of relativity," Davies said. The accepted speed of light is 300,000 km per second. "Maybe it's possible to get around that restriction, in which case it would enthrall Star Trek fans because at the moment even at the speed of light it would take 100,000 years to cross the galaxy.

Oct 14 2005

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Scientists slow down light to crawling speed

NEW DELHI, Oct 13 (PTI)

AMERICAN researchers have created a device that uses a laser amplifier to slow the speed of light more than a million fold and will be used in developing speedier communication networks.

The research team at the University of California, Berkeley, led by Connie J. Chang-Hasnain, clocked the speed of light at 245 meters per second, an improvement over their last year's record of 9.6 km per second.

Moreover, the team did this at room temperature unlike their previous method that required temperatures as low as 10 degrees Kelvin, according to the journal 'Optics Express.' They used a state-of-the-art laser as an amplifier to adjust the velocity of light at room temperature making it more practical and effective, the report said.

The researchers hope to freeze light in its tracks, which would open doors to optical memory and storage. For instance it would allow storage of entire contents of Library of Congress in one flash memory card.

News published in newspaper of dated 14 oct 2005