Re: PONDERABLE MASS DOES NOT CONVERT TO KINETIC ENERGY

Source: http://sci.tech−archive.net/Archive/sci.physics.relativity/2006−11/msg00467.html

- *From*: "AJAY SHARMA" <devianju@xxxxxxxxx>

- *Date*: 5 Nov 2006 04:53:43 −0800

Bill Hobba wrote:

> "AJAY SHARMA" <devianju@xxxxxxxxx> wrote in message
> news:1160186322.655869.209970@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
>
> > Bill Hobba wrote:
> >
> > > <vergon@xxxxxxxxx> wrote in message
> > > news:1160183349.862072.301670@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
> > >
> > > > So the "modern" boys describe the neutron
> > > > with udd quarks and they
> > > > somehow believe that's a REALISITC
> > > > description. Poor things.
> > >
> > > REALISTIC with capital letters is a philosophical issue. It is
> > > 100% in
> > > correspondence with all experiments so is a valid scientific
> > > theory.
> > > That
> > > you do not understand this very very elementary fact about
> > > science makes
> > > you
> > > 'the poor thing'. Rest of usual junk and misconceptions
> > > mercifully
> > > sniped
> > >
> > > Bill
> >
> > −−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−
> > The fundamentals of problem can be understood in Einstein's paper,
> > A.Einstein, Annalen der Physik 18 (1905) 639−641.
> > . DOES THE INERTIA OF A BODY DEPEND
> > UPON ITS ENERGY−CONTENT?

No need to look up Einstein's paper − the answer is now well known − energy is not always equivalent to mass but energy is part of the stress energy tensor so is always a source of gravity. However what that has to do with the posted issue is beyond me.

Bill

Weblink is
Einstein's 27 Sep 1905 paper available at
http://www.fourmilab.ch/etexts/einstein/E_mc2/www/
Ajay Sharma

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Galileo (NOT Einstein) is inventor of Second postulate of Relativity

Einstein s June 1905, paper is known as Special Theory of Relativity?
The reference to this paper

http://www.fourmilab.ch/etexts/einstein/specrel/www/

In this paper Einstein stated two postulates and here we will discuss the second postulate.
Part I
Second postulate of Special Relativity as re−stated by Einstein
(i) The laws by which the states of physical systems undergo change are not affected, whether these changes of state be referred to the one or the other of two systems of co−ordinates in uniform translatory motion .

It refer to that law of physics are the same, if two systems or observers are UNIFROM MOTION (zero acceleration).
I t is well known that in this paper Einstein did not give any REFRENCE to the existing literature, which implies that all this postulate is his work .
Part II
Galileo is inventor of Second postulate of special Relativity.
Galileo has given second postulate of Special Theory in his book Galileo Dialogue Concerning the Two Chief World Systems),
Ref.
Galileo, G. 1632, Dialogues concerning the two chief world systems, trans. S.Drake, 2nd edition 1967, University of California Press.
For this book was published by Galileo in 1632 and was persecuted for this book.

Galileo quoted an example in the Dialogue [14] , that if a ship is moving with uniform velocity then from motion of fish in bottle one can not judge that whether ship is moving with uniform velocity or at rest. Thus Galileo stated

the mechanical laws of physics are the same for every observer moving uniformly with constant speed in a straight line".

It refer to that law of physics are the same, if two systems or observers are UNIFROM MOTION (zero acceleration). The Einstein has simply re−stated in 1905, the existing in the literature since 273 years. It is against ethics of research. Einstein should have given due credit to Galileo. Even at this time it I not too late to honour Galileo for basics of Special Theory of Relativity.

Ref BOOK 100 Years of E=mc2
https://www.novapublishers.com/catalog/product_info.php?cPath=23_48_324&products_id=4554
(Book will be published in Dec. 2006, By NOVA Science, New York, USA)

Even Pope John has pardoned Galileo in 1992 for the book, he was persecuted.

https://www.novapublishers.com/catalog/product_info.php?cPath=23_48_324&products_id=4554

Second Post
Which mathematical equation from Einstein s Sep. 1905 derivation predicts that when Light Energy is emitted, MASS OF BODY INCREASES?
−−−

Which mathematical equation from Einstein s Sep. 1905 derivation predicts that when Light Energy is emitted, MASS OF BODY INCREASES?

BRIEF

Einstein has speculated E= ”m c2 from L= ”m c2 in his Sep 1905 paper. This derivation (under SPECIAL CONDITIONS) predicts that when Light Energy is emitted mass of body decreases. It is true. But the same derivation under general conditions ALSO predicts that when body emits light energy its mass must increase. It is inconsistent prediction from Einstein s derivation and contradiction of Law of Conservation of Matter or Energy. Einstein did not discuss this aspect in his work. This aspect is highlighted here.

For details
https://www.novapublishers.com/catalog/product_info.php?cPath=23_48_324&products_id=4554
(book will be published in Dec 2006 , by NOVA Science in New York , USA)

1. What is Einstein s Sep 1905 paper in few words?.

AJAY SHARMA : In this paper Einstein derived a relationship between
Light energy emitted (L) and corresponding decrease in mass (”m =
Mb−Ma) as
L = (Mb−Ma)c2 or Mb Ma = L/c2
From here Einstein speculated E=mc2
Practically, Einstein considered a body at rest emitting light energy.
Einstein measured the magnitude of light energy in a moving system. And
then he derived a relation between ENERGY EMITTED (L) and DECREASE IN
MASS (”m) of body.

2. Under which conditions Einstein derived this equation L = ”mc2 ?

AJAY SHARMA: In Einstein s derivation , there are four variables i.e.

(a) Number of light waves emitted by body
(b) Magnitude of energy of light waves
(c) Angles at which waves are emitted by body
(d) Velocity of measuring system w.r.t. body emitting light energy.

Einstein took SPECIAL CONDITIONS to derive L =mc2 and speculated from
it E=mc2

(a) Einstein took , Just two light waves
(b) Energy of light wave is equal
(c) Waves are emitted in opposite directions
(d) Velocity measuring system w.r.t body is in classical region.

Thus under these conditions Einstein s derivation is OK. The result
is
When body emits light energy, its mass decreases i.e. L = (Mb−Ma)c2

It is correct.

3. What about Law of Conservation of momentum?

AJAY SHARMA : After emission of light energy body
(i) May remain at rest.
(ii) May tend to move
(iii) May move apparently or visibly
the law of conservation of momentum is always obeyed. The velocity of
recoil can be calculated by applying equation,
Initial Momentum = Final Momentum
The velocity of recoil of gun is determined by this method.
Einstein has considered first case ONLY.

4. Which is the mathematical equation obtained by Einstein in Sep 1905
paper which predict that
When light energy is emitted, mass decreases?

AJAY SHARMA: The final equation in this regard is
”m = L /c2
or Ma (mass of body after emission) = Mb (mass of body before emission) L/c2
Thus mass of body decreases when light energy is emitted.
Einstein has derived this equation under SPECIAL CONDITIONS by considering two light waves of equal energy(0.5L each) , emitted in opposite directions etc.

5. Which is mathematical equation which follows from Einstein s derivation and implies that
when Light Energy is Emitted mass of body Increases?

AJAY SHARMA There are numerous equations to this fact which follows from Einstein s Sep 1905 derivation and predict that when
Light Energy is emitted, Mass of Body Increases.
It is contradiction of LAW OF CONSERVATION OF MATTER OR ENERGY.

One case is e.g. when body emits TWO LIGHT WAVES of energies 0.501L and 0.499L , emitted in OPPOSITE DIRECTIONS. Thus all conditions are same as that in Einstein s derivation except magnitude of Light energy (Einstein has taken energy equal to 0.5L each).

Exactly repeating the calculation as done by Einstein in Sep 1905 paper we get

” m = Mass of body before emission (Mb) Mass of body after emission (Ma)
= 0.004L/cv + L/c2
(16)
or Ma = 0.004L/cv L/c2 + Mb
Thus
Mass of body after emission of light energy (Ma)
= Positive Quantity + Mass of body before emission.
Hence mass Increases, when light energy is emitted.

It is not CORRECT prediction FROM Einstein s derivation.

Third Post
Why Einstein s Sep 1905 derivation CONTRADICTS Law of Conservation of Matter?

Why Einstein s Sep 1905 derivation CONTRADICTS Law of Conservation of Matter ?
Part I
Reason for this incorrect deductions.
The central equation in Einstein derivation is very complex .
(i) The basic equation Einstein used is

* = {1 v cos Æ/c } / [1 v2 /c2] (1)
* is light energy measured in moving in frame and is energy measured in rest frame. Einstein has given eq.(1) in his June 1905 paper, known as Special Theory of Relativity and called eq.(1) as Doppler principle for any velocities whatever. Link for paper of Special Theory of Relativity
http://www.fourmilab.ch/etexts/einstein/specrel/www/
(ii) Thus there are many variables in derivation.

(a) Number of light waves
(b) Magnitude of energy of light waves
(c) Angles at which waves are emitted
(d) Velocity of measuring system w.r.t. body emitting light energy.

Einstein took special conditions to derive L =mc2 or E=mc2

(a) Einstein took , Just two light waves
(b) Energy of light wave is equal
(c) Waves are emitted in opposite directions
(d) Velocity measuring system w.r.t body is in classical region.

Thus under these SPECIAL conditions Einstein s derivation is OK. The result is
When body emits light energy , its mass decreases.

Part III

Experimentally law of inter conversion of mass energy holds good in all cases. Theoretically large number of cases is possible (Einstein s derivation is valid under these conditions also).
(p) Body may emit large number of waves
(q) The waves may be emitted at different angles.
(r) The waves may have different energies.
(t) Velocity may be in relativistic region.

THUS UNDER GEENRAL CONDITIONS EINTEIN S SEP. 27 1905 DERIVATION DOES NOT WORK WELL.
You have commented about sign CHANGE it follows from Einstein s derivation, hence it has limitation.
If you think , I have INCORRECTLY induced it , let me know. Write down the correct equations for the readers.

So Einstein s Sep 1905 derivation is true under special conditions only. This is the THEME of the paper.
References

If somebody disagree then one can write to Editor Physics Essays addressing the following issues.

What is Einstein s Sep 1905 paper?

What are conditions under which it is derived?
What is Planck s observation regarding it?
Under what conditions experimentally it holds good?
Why Einstein did not generalize the same?
How to generalize it under all conditions?
What is Ajay Sharma s Interpretation?
How Ajay Sharma s paper is different from Einstein s Sep 1905 paper.
How Editors/referees who have published it are WRONG?
How Ajay Sharma s interpretation is incorrect (if it)?
What are the correct interpretations AND EQAUTIONS?
My paper answers all above questions.
It follows from Einstein s derivation under legitimate conditions,(in some cases) that
when Light Energy is Emitted , mass of body INCREASES.
It is incorrect deduction from Einstein s derivation.

Part IV
References.

References of Einstein s work
..
A.Einstein, Annalen der Physik 18 (1905) 639−641.
.. DOES THE INERTIA OF A BODY DEPEND
UPON ITS ENERGY−CONTENT?
Weblink is
Einstein s 27 Sep 1905 paper available at
http://www.fourmilab.ch/etexts/einstein/E_mc2/www/

PartII
References of Ajay Sharma s work

My work is available at
A. Sharma, Physics Essays, 17 (2004) 195−222.
The Origin of Generalized Mass−Energy Equation DE = Ac2 DM; and its applications in General physics and Cosmology .
http://www.burningbrain.org/pdf/ajaysharma_einstein.pdf

For details
https://www.novapublishers.com/catalog/product_info.php?cPath=23_48_324&products_id=4554

International Conferences
It has been accepted for presentation over 55 conferences all over the world
−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−−few of them
1. Sharma, A. presented in 19th International Conference on the Applications of Accelerators in Research and Industry , 20−25 August , 2006 Fort Worth Texas, USA

2. A. Sharma, Abstract Book 38th European Group of Atomic Systems

(
Euro physics Conference) Isachia (Naples) Italy (2006) 53.

3. A. Sharma , Abstract Book , A Century After Einstein Physics 2005 ,

10−14 April 2005 (Organizer Institute of Physics , Bristol)
University of Warwick , ENGLAND

4. A. Sharma presented in 5th British gravity Conference , OXFORD
ENGLAND

5. A. Sharma,. Proc. Int. Conf. on Computational Methods in
Sciences and Engineering 2003 World Scientific Co. USA ,
(2003) 585.
6. A. Sharma, Proc. Int. Conf. on Number, Time, Relativity United
Physical Society of Russian Federation, Moscow, (2004) 81
plus more
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Book 100 Years of E=mc2
For details
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(book will be published in Dec 2006 , by NOVA Science in New York ,
USA)

AJAY SHARMA 5 NOV 2006

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