Re: answer to YBM's bell problem

Source: http://sci.tech−archive.net/Archive/sci.physics.relativity/2008−09/msg00794.html

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- *From*: rbwinn <rbwinn3@xxxxxxxx>
- *Date*: Thu, 11 Sep 2008 13:13:22 −0700 (PDT)

On Sep 11, 12:34ýpm, YBM <ybm...@xxxxxxxx> wrote:

> rbwinn a ýcrit :
>
> > > On Sep 11, 8:55 am, YBM <ybm...@xxxxxxxx> wrote:
> > >
> > > > rbwinn a crit :
> > > >
> > > > > > On Sep 11, 6:40 am, YBM <ybm
> > > > > >
> > > > > > > Funny : the same light rays
> > > > > > > have a different behaviour
> > > > > > > in A and in B !
> > > > > > > Here is what you pretend:
> > > > > > > They meet at the origin of A
> > > > > > > from the point of view of A
> > > > > > > (so the bell
> > > > > > > ring)
> > > > > > > They meet at the origin of B
> > > > > > > from the point of view of B
> > > > > > > (so the bell,
> > > > > > > which is NOT at the origin
> > > > > > > of B at this time, doesn't
> > > > > > > ring)
> > > > > > > AGAIN: This is a direct
> > > > > > > conclusion OF WHAT YOU
> > > > > > > JUST WROTE, not what
> > > > > > > I pretend, not what GT or
> > > > > > > LT pretend.
> > > > > >
> > > > > > A bell at the origin of A does not depend on
> > > > > > light meeting in B. It

depends on light meeting at the origin of A.

These sentences are insanely meaningless... The bell at the origin of A
depends on light meeting or not at the origin of A regardless of the
frame you consider this event. It's why any decent theory could not
predict, as yours, that it rings in a frame and not in another one.

Mine says that if the bell is at the origin of A, and two light rays meet there as you specified, then the bell will ring in all frames of reference.

So you change your mind, remember that YOU wrote :

The time n' in B is saying that the two light rays meet at the origin of B

But now you are saying that the bell will ring in both frames, so
the light rays won't meet at the origin of B. The problem is
that YOUR math implies that the bell won't ring from the point
of view of B. You contradict you OWN "theory".

If the bell is at the origin of B, and two light beams meet at the origin of A, the bell at the origin of B will not ring unless two beams of light are also meeting at the origin of B.

Of course, but this is irrelevant since the light rays won't
meet at the origin of B.

You are trying to obfuscate the issue in order to evade the
fact that you "theory" has been proven absurd, aren't you ?

By your definition of
the problem, light meets at the origin of A
because light is emitted
at −a and a on the x axis in frame of
reference A at the same time.
The light meets at the origin of A in a time
of t=a/c.

Right.

The bell rings
in all frames of reference when that happens.

It's true, BUT it's not enough to write it down to make your "theory"
says that. As a matter of fact your "theory" predict it won't in B frame.

It can't do anything else in B. ýThe mathematics as computed from either frame of reference shows that in frame of reference A, light met at the origin of A. ýThe bell has to ring if it is working.

So the mathematics of your "theory" have no consistence. Not that this is a surprise to anyone.

Now you want to talk about frame of reference B. To make this easier
to see, we will put another bell at the origin of B. The bells are
right next to each other when the light is emitted. Bell A rings when
a time of t=a/c has elapsed in A. The bell in B is now a distance of
vt from the bell in A.
Scientists have determined by experiment that
the clock in B is slower than the clock in A.

Nope. What experiment shows is :
− from the point of view of frame B, clocks in A are running slower
− from the point of view of frame A, clocks in B are running slower

Well, you specified in the beginning that B was moving relative to A, so thus far, we are only looking at it from the point of view of frame A.

Sigh... Obfuscating and evading again... The whole point of transformations is to study what is observed in a frame (here the B one) given what is observed in another one (here the A one).

Note that this is as well what LTs predicts.

The clock in B
continues to move away from the clock in A.
When the clock in B reads
n'=a/c, the bell in B rings.

You're going more insane every day : what you just write implies this :
− For an observer in A, the bell at rest in A rings, the one at rest in
B don't
− For an observer in B, the bell at rest in B rings. the one at rest in
A don't

Well, if you are using the Lorentz equations, only one bell is going to ring because of relativity of simultaneity. ý

Wrong. I've shown you EXACTLY what Lorentz equations show.

The rays of light will
not meet at the origins of both frames of reference. ýSo from A, an observer will only observe the bell in A to ring, from B an observer will only observe the bell in B to ring.
ýWith my equations, the bell in A will ring first, then the bell in B. ýYou will hear both bells in both frames of reference.

Now, YBM, explain the same events using
the Lorentz equations.

I did here
:http://groups.google.com/group/sci.physics.relativity/msg/a39fe2523de...

There is no such absurdities
in SR : for SR, the bell
rings in both frames... It just
happens that in frame
B they were emitted at
coordinates
(−a/sqrt(1−v^2/c^2),0,0) at

time
va/(c^2*sqrt(1−v^2/c^2))
for the "left" light ray, and :
(a/sqrt(1−v^2/c^2),0,0) at
time
−va/(c^2*sqrt(1−v^2/c^2))

Uh huh. ý

Is there something you don't understand above ?

But if you put a bell at the origin of each frame of
reference, what will happen?
Robert B. Winn

So it is quite certain that you didn't read.

No, I read it, YBM. ýSo explain what happens if there are two bells,
one at the origin of each frame of reference.

Look carefully at the coordinates of events I've provided
above. Then figure out yourself :
− at what time in B does both light rays have been emitted ?
ý ýare they the same ?

Because of relativity of simultaneioty that the Lorentz equation
require, the beams of light are not emitted at the same time in B.
Therefore, according to you only the bell at the origin of A will ring
as observed by the observer in A.

− are the positions of the points of emission in frame B symetric
ý ýwith respect to the origin of B ?

The points of emission are equal distances from the origin of B.

− given that velocities of the light rays are c and −c in B
ý ýare they going to meet at the origin of B ?− Hide quoted text −

I say they will, but the Lorentz equations say they will not. If you
have a bell at the origin of A and a bell at the origin of B, only one
of the bells will ring.

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Robert B. Winn
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