

Re: "How Does Light "Know" How Fast to Travel?"

Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2006-03/msg01067.html>

- *From:* "guskz@xxxxxxxxxxx" <guskz@xxxxxxxxxxx>
 - *Date:* 14 Mar 2006 16:05:19 -0800
-

Hexenmeister wrote:

<guskz@xxxxxxxxxxx> wrote in message
news:1142198454.580671.277810@xx
|
| Hexenmeister wrote:
| > <guskz@xxxxxxxxxxx> wrote in message
| > news:1142094395.073167.69410@xx
| > |
| > | Hexenmeister wrote:
| > | > <guskz@xxxxxxxxxxx> wrote in message
| > | > news:1142080928.056274.322800@xx
| > | > >
| > | > > Hexenmeister wrote:
| > | > > <guskz@xxxxxxxxxxx> wrote in message
| > | > > news:1141668263.475074.323630@xx
| > | > > >
| > | > > > Because it's forced to obey Maxwell equation and therefore the
| > | > > > permeability (travelability) of the space medium.
| > | > > >
| > | > > > What medium?
| > | > > >
| > | > > > That point is 100% clear to me and only because of that certainty
my
| > | > > > reply would be that you would not reply to me with this question
| > | > > > (hoping you dont become defensive) if you researched the full
meaning
| > | > > > of permeability and permeability.
| > | > > >
| > | > > > Perhaps you mean permeability and permittivity.
| > | > > >
| > | > > > You are sharp indeed!
| > | > > >
| > | > > > No more than the average proofreader.
| > | > > >
| > | > > > humble humble
| > | > > >
| > | > > >

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|> |> If I drop a cannonball in the ocean it doesn't fall as fast to the
|> |> ocean floor as it would if I dropped it a similar height in air.
|> |> We call the water and air "media" and it is this medium that
controls
|> |> the descent to the ocean floor.
|> |
|> | Yah but i think you ment vice-versa
|>
|> I meAnt exactly what I said.
|
| Well I explained why vice-versa below which is common knowledge, space
| or the atmospher is known as a medium not a media.

| media is the information (news media) and not the carrier, the carrier
| is the medium.

I meant exactly what I said, no matter what you thought I meant or what
you attempted to explain. It is common knowledge that "media" is the plural
of "medium".

Main Entry: me-di-um Pronunciation: 'mE-dE-&m
Function: noun
Inflected Form(s): plural mediums or me-dia

Etymology: Latin, from neuter of medius middle -- more at MID
1 a : something in a middle position b : a middle condition or degree
: MEAN
2 : a means of effecting or conveying something: as a (1) : a
substance regarded as the means of transmission of a force or effect (2) : a
surrounding or enveloping substance (3) : the tenuous material (as gas and
dust) in space that exists outside large agglomerations of matter (as stars)
<interstellar medium> b plural usually media

Don't try to teach an Englishman plain English.

Correct, media is known as a plurality to medium but it can also be the
info carried by the medium

medium definition: middle between two ends, such as wire and an
information carrier.

media defintion: "Messages that are distributed through the
technologies, principally text in books, study guides and computer
networks; sound in audio-tapes and broadcast: pictures in video-tapes
and broadcast; text, sound and/or pictures in a teleconference."

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The above has a plurality but as well it is not the books nor tapes, instead it is the info that is in the books and tapes which is the text(media) in the books (medium), the sound(media) in the audio-tapes, the pictures (media) in the video-tapes(media). etc...

|> | media carries the info (photons carry info)
|> |
|> | the medium is the air and water and the cannonball is the media
|> |
|> |> If the water or air wasn't there, the iron weight wouldn't fall at all,
|> |> it would sit there, floating in space because it doesn't have
|> |> any air or water to fall in.
|> |
|> | you wouldn't have any dimensions to localize the cannonball's location
|> | if you wish to get technical about it.
|>
|>
|> I wish to get technical about it and yes I would, I know how to use
|> a ruler, a knotted length of string, a theodolite and a stopwatch.
|>
|>
|> |>
|> |>>
|> |>> The basic meaning of permeability and permittivity means travel
|> |>> restriction otherwise both of these values would be ZERO and the
|> |>> speed
|> |>> of light would be infinite. $c^2 = 1/(\text{permeability} * \text{permittivity})$
|> |>
|> |> What makes you think that because you can measure the acceleration
|> | of
|> |> falling cannonballs in air that cannonballs are a wave in air
|> | (sound)?
|> |
|> | firstly the cannonball has mass where as photons do not,
|>
|> Prove a cannonball has mass and a photon does not.
|
| Hey it's not my theory, there the ones that argue photon should only be
| considered as momentum.

I'm not interested in hearsay. You are the one proposing it to me. I'm challenging YOU.
Prove a cannonball has mass and a photon does not.

Now, your being unreasonable, no one presently can prove it and you

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know that, therefore it means you're starting to get carried away....
The present theory in the books (not my books) is that photons have no mass and only momentum. I do not pretend to be able to contradict them, nor anyone in this newsgroup.

|
| > Tell me how to go about measuring it, and while you at it,
| > how to go about measuring the mass of this "Eather" you've
| > heard of.
|
| Oh yeah, prove there's an invisible wall said Androcles just before
| smashing into it.

Yes, prove Androcles ever smashed into an invisible wall.

| Maxwell's equation applies to the permeability and permitivity of ANY
| medium,

"It is known that Maxwell's electrodynamics—as usually understood at the present time—when applied to moving bodies, leads to asymmetries which do not appear to be inherent in the phenomena."

That was written over 100 years ago, 1905 to be precise.

all I'm saying is why should space receive the exception and

| notably because c is not infinite but restricted to the porosity of
| space (permittivity and permeability = porosity/opacity of a medium).

All you are saying is bullshit, the opacity of space is OBVIOUSLY non-existent.

Computer store colors in a range from 0 to 255, the higher the number the more color in the picture.

Likewise for permittivity the lower this number the faster the velocity (" c ").

For the sake of comparison, permittivity is say 22 (out of 255) instead of 0.

#1. If space is truly void then why is it's number 22 and not zero?

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#2. If #1 is IRRELEVANT to determining a "void" then why are ALL other medium's permittivity above that of space?

#3. Why is the higher the permittivity the more time it takes to travel through the medium since the maximum possible velocity ("c") in the medium is proportionally LESS?

Since space is not "0" but instead say "22" in terms of permittivity, and as well since it regulates the maximum velocity possible AND the maximum amount of energy(quantum for space, current/coulomb for electrical wires) that can pass through this medium(space or wire) per unit of time....

|
|-----
|

| 1. What is strange is that the permeability/permittivity of an electric
| circuit is not necessarily measured by the conductivity of the wire
| (medium) but instead of the dielectric (metamorphose as the singularity
| of big bang) value of the capacitorwhich also regulates the "rate"
| of time in the circuit.

What is strange is that you know sweet fuck—all about it and are trying to con me.

<http://www.androcles01.pwp.blueyonder.co.uk/AC/AC.htm>

quote:"Both these spaces are empty, although it is possible to fill them with matter such as air."

I believe not only the air determines the permittivity but the thickness of the air (meaning the distance between the plates)...call it what you like but is specifically known as a SEMI-conductor, if it was 100% insulation or 100% conductor you would not have 0% or 100% permittivity.

And if you have 0% or 100% permittivity, you have no capacitance, no capacitance means no capacitor(power source), no capacitor and you no magnetic field.

|
| 2.

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|
| a) I believe Einstein's relativity applies to any medium

That's an article of your faith, not mine.

<http://www.androcles01.pwp.blueyonder.co.uk/Smart/Smart.htm>

No my faith but Maxwell's and Einstein's:

$(\text{Maximum velocity of medium})^2 = 1 / (\text{permittivity of medium} * \text{pemeability of medium})$

$E = M c^2 = M / (\text{permittivity of medium} * \text{pemeability of medium})$

and not just

| space and since "c" is smaller the more dense (less porous) the medium
| thus a smaller "c" value would probably be needed to observe time
| dilation when traveling in a medium denser than space....although you
| would still need infinite Energy since the medium is less travelable
| than space.

|
| b) The main aspect of part (a) above is that even though there is
| Relativity since we noticed that "maximum" velocity is not always "c" but
| varies with the permeability and permittivity of the medium therefore
| could there still be an absolute frame of reference for the universe
| "REGARDLESS" of relativity....for both the dimensional position vectors
| and the Rate of Time.

|
|
|> | thus in this
|> | instance the cannonball would be a conglomeration of inter..active
|> | photons.
|> |
|> | secondly the cannonball does not generate the waves the waves are the
|> | perturbations from the displaced air medium (versus the air's ability
|> | to dampen all waves....aftershock).
|> |
|> | This cannonball on a spring has waves:
|> | <http://www.kettering.edu/~drussell/Demos/SHO/damp.html>
|
| the spring is the wave, the cannonball is the force through gravity
| applied to it.

There was no mention of gravity.

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As you wish ...then the cannonball with a momentum

The oscillator still works in the horizontal plane, that's why balance wheel clocks were devised in preference to pendulum clocks.

As I said, the cannonball is NOT the wave, the spring is the wave and causes the cannonball to oscillate.

|
| > See? Wave-particle duality.
| > What is the wavelength of the waves?
| >
| >
| >
| > |
| > | > You'll be telling me next that cannonballs cannot exceed the speed of
of
| > sound,
| > | > the frequency becomes infinite.
| > |
| > | I'll let you and the reader do the math.
| >
| > Because you cannot.
| > I'll let the reader draw his conclusions on your capabilities.
|
| I believe you would be contradicting Planck's theory and the Quantum
| theory and Einstein.

I'm not responsible for your faith or beliefs.

It is not "my" faith, it is the present belief.

| The higher the relativistic mass the higher the
| Energy needed to reach higher velocity.

I don't believe you, prove it.

You need an infinite energy to "ACCELERATE" any mass to the speed of

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light. Likewise to accelerate mass near the speed of light and likewise the more energy needed the higher this mass to be accelerated to near the speed of light.

I proved by as Christ said the unbelievers manage to find a away around the evidenceand ridicule it.

...the present understanding the
| higher the mass then infinite Energy needed to accelerate to the
| velocity of "c".
|
| In a circuit if the Energy applied is higher than the permittivity and
| permeability of the capacitor's dielectric then the dielectric ruptures
| and/or the circuit's copper wire (medium) melts.

Superconductors do not melt. Capacitors range from a few picofarads to farads, and some are polarised.

You're not contradicting my statement only elaborating on it. I said perhaps wires as well, superconductors are not capacitors.

|
|
|>
|> | Let's just saying using Maxwell's equation the velocity of c in water
|> | would be related to that similar in space which is:
|> |
|> | $c^2 = 1 / (\text{permeability of the water} * \text{permittivity of the water})$
|> |
|> | for space: $c^2 = 1 / (\text{permeability of space} * \text{permittivity of space})$
|>
|>
|> Let's just say that the volume of a gas at zero degrees Kelvin in zero.
|> Let's just say that the speed of sound in space is infinite.
|> Let's just say bright green flying elephants lay eggs in black holes.
|
| I knew it! Dumbo's my favorite one!!! Shhhh!

I knew it, you are a bullshitter.

Just because I like dumbo?

Actually bullshit is volume = 0 because temperature = 0

This is not bullshit and is Maxwell's equation for ANY MEDIUM not just

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space:

$(\text{maximum velocity or "c"})^2 = 1 / (\text{permeability of medium} * \text{permittivity of medium})$

| Are you saying the value of c doesn't change with the medium it travels through....and yet this discovery is not too long ago.

I'm saying that space has no permittivity or permeability. This discovery was made in 1896 by Michelson.

I think your drunk...and you mean no ether.

Maxwell's equation for space: $c^2 = 1 / (\text{permeability of space} * \text{permittivity of space})$

Just because the velocity of light is the same in ALL DIRECTIONS in water does not mean there is no water, likewise for the ether.

| >

| >

| > | As well as the direct linear interpolation that the higher the density | > | (and/or porosity, opacity, etc...) of the medium then the higher the | > | permeability and permittivity of the medium.

| >

| > Space is not a medium. It is NOTHING.

|

| Maxwell's equation contradicts it.

So Maxwell's equation was wrong.

| You obviously have a peeve with that.

You obviously have a peeve with that.

| Can you say the invisible is green....no....it's invisible?

Can you say the green is invisible... no... it's green.

|

| Maxwell's permeability and permittivity is not only for space.

Maxwell's permeability and permittivity is only for not space.

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| When they speak of permeability....it's the permeability OF THE MEDIUM.

Space has no medium.

| Example:

| the conductivity.... same as the conductivity of the medium, therefore
| the conductivity would HAVE to be ZERO (infinite) for there not to be a
| medium since the conductivity is not invisible(not zero but green) thus
| there is a medium....for space because of Maxwell's equation, the
| permittivity and permeability are not zero therefore there is a medium
| known as the Ether

Michelson proved you wrong. I'm not convinced by your fantastic beliefs,
I'm convinced by a scientist.

Learn Galilean Relativity.

<http://www.androcles01.pwp.blueyonder.co.uk/Wilson/SpinWilson.htm>

Androcles.

|
|
| >Light travels millions
| > of light years in nothing at all. No big deal, so do cannonballs.
| >
| >
| > | >
| > | >
| > | > > Because it's not zero
| > | >
| > | > Whoa! What isn't zero?
| > | >
| > | >
| > | > > therefore there is an invisible medium,
| > | >
| > | > Therefore cannonballs don't fall.
| > | >
| > | > > all
| > | > > medium have a permeability and permittivity (sometimes known as
| > | > > viscosity).
| > | >
| > | > Yeah, ok, all media slows down cannonballs.
| > | >
| > | >
| > | > > For there not to be a medium both permeability and
| > | > > permittivity would = zero.
| > | >
| > | > Sure, and the speed of cannonballs would be INDEPENDENT of the
| > | > non-existent media.

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|> |>
|> |>>
|> |>>> Of all mediums, space has the lowest permittivity and permeability.
|> |>
|> |> Yep. ZERO.
|> |>
|> |>
|> |>> In
|> |>> fact
|> |>
|> |> Whenever I see a sentence beginning with "In fact" I know some
|> |> bullshit is about to follow.
|> |>
|> |>> the speed of light varies with the density (density almost similar
|> |>> in characterisitic with viscosity, permittivity, permeability,
|> |>> porosity) of the medium it travels through.
|> |>
|> |> In fact I was right, some bullshit did follow. Michelson
|> |> proved what you've just said is bullshit.
|> |>
|> |>
|> |>>
|> |>>> Because of Maxwells equation we are FORCE to prove there is no medium
|> |>>> and thus no Eather.
|> |>
|> |> So at last we come to the answer to my question, "What medium?"
|> |>
|> |> Eather... I call that aether, it is as aetherial as ectoplasm.
Maybe
|> |> you confuse 'seance' with 'science' as well.
|> |>
|> |>
|> |>>>
|> |>>>> Logically if space was truly empty the travelability would be
|> |> infinite
|> |>>>> (thus c would be inifinte).
|> |>>>
|> |>>> Logically it is. Why depart from logic?
|> |>>>
|> |>>>> Therefore
|> |>>>
|> |>>>> No, no, no.
|> |>>>> Logically, space IS truly empty and the "travelability"
(whatever
|> |> that
|> |>>>> is)
|> |>>>> of a bullet or a spacecraft or a photon is undefined.
|> |>>>

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|> |> > If it truly was empty, the velocity of light would have no restriction

|> |>

|> |> It would have no restriction, I don't know what "restriction" means.

|> |>

|> |>

|> |> > and therefore would be infinite,

|> |>

|> |> No, no... We are discussing "Logically".

|> |> Having no speed restriction does not mean speed is infinite

|> |> or cars on the Bonneville salt flats or in the Sahara Desert

|> |> would have infinite speed.

|> |> There is no "therefore" between "unrestricted"

|> |> and the "speed must be infinite".

|> |>

|> |> I'll leave it there, you said "logically" and then departed from logic.

|> |>

|> |> <http://www.androcles01.pwp.blueyonder.co.uk/Smart/Smart.htm>

|> |>

|> |> Androcles.

|> |>

|> |>

|> |>

|> |>

|> |> as well the rate of time would be

|> |> > infinite (or non existant...or perhaps static). Example(for time):

How

|> |> > long did it take you to perform the task, well since the speed was

|> |> > infinite therefore I did it in zero time.

|> |> >

|> |> > -----

|> |> >

|> |> > Permittivity and permeability(the umbrella is Impermeable to rain) =

|> |> > porosity of the medium = semi- conductivity of the universe therefore

|> |> > suggesting not only computers are binaric (1 and 0, light and

|> |> > darkness)

|> |> > but the universe and it's birth as well through forces known as

|> |> > conductivity and insulation (together form a semi-conductivity also

|> |> > known as a semi-travelability which Maxwell calls permittivity and

|> |> > permeability).

|> |> >

|> |> > A better visual would be the capability (permission = permittivity) of

|> |> > a BEAM of heat(light/photons) to travel through insulation. The linear

|> |> > resistance to it's travel is known as it permittivity and the

|> |> > perpendicular resistance determines the THICKNESS of the heat

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beam,

|> |>> which is determined by what is known as the permeability of the
|> |>> insulation. (Anything but 100% or 0% insulation is known as a
|> |>> semi-conductor).

|> |>>

|> |>>

|> |>> The secrets of Magneteria, same as insulation(or space) above
water is

|> |>> also a medium and a boat or air bubble (metamorphore of a photon)

|> |>> travelling through this water medium (metamorphore of the Eather)

|> forms

|> |>> waves both in the direction of the boat (or air bubble) =

permittivity

|> |>> and a different strength wave perpendicular to this travel

direction =

|> |>> permeability and Magneteria.

|> |>>

|> |>> Therefore when two different entities (mass) traveling through the

|> |>> water (eather) medium generates two separate waves (metamorphore

of a

|> |>> photon) in the water (eather) and the synch/phase relationship

|> between

|> |>> the two sets of waves generates attraction and repulsion

depending if

|> |>> the waves cancel-out or become much more intensive.

|> |>>

|> |>>

|> |>>

|> |>>

|> |>>> There are no "therefores" to "would bes" (logically).

|> |>>> Androcles.

|> |>>>

|> |>>>

|> |>>>

|> |>>>

|> |>>>

|> |>>> because space behaves like anyother medium such as water it

|> |>>>> may force the universe to adhere to an absolute space as

reference

|> |>>>> frame...but then why is there time dilation.

|> |>>>>

|> |>>>> As well permeability is a charecteristic attribuatable to the

power

|> |>>>> supply of a medium known as the capacitor/battery thus for

space,

|> it's

|> |>>>> permeability (and thus the speed of light) may be attribuatable

to

|> it's

|> |>>>> singularity (location of the Big Bang) as well as the total

energy

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|> |> >>> produced by the Big Bang, likewise in a capictor circuit, the
rate

|> of

|> |> >>> time is determine by the permeability of the capacitor

|> (singularity)

|> |> >>> and the energy of the circuit(energy produced by the Big Bang
and

|> when

|> |> >>> Bill Hubba farted (the latter added to see if he's reading

|> |> >>> this.....kaboom).

|> |> >>>

|> |> >>>

|> |>>

|> |

|