

Re: Speed of Light: A universal Constant?

Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2005-03/5042.html>

From: kenseto (kenseto_at_erinet.com)

Date: 03/23/05

Date: Wed, 23 Mar 2005 15:10:37 GMT

"The Ghost In The Machine" <ewill@sirius.athghost7038suus.net> wrote in message news:3k77h2-gbu.ln1@sirius.athghost7038suus.net...

> *In sci.physics, PDraper*

> <pdraper@yahoo.com>

> wrote

> on Tue, 22 Mar 2005 11:37:19 -0500

> <BE65B3EF.3114%pdraper@yahoo.com>:

>> On 3/22/05 8:21 AM, in article [oZU%d.6488\\$rL3.5018@fe2.columbus.rr.com](mailto:oZU%d.6488$rL3.5018@fe2.columbus.rr.com),

>> "kenseto" <kenseto@erinet.com> wrote:

>>

>>>

>>> "Mark Ferguson" <nunya@biz.ness> wrote in message

>>> [news:LaF%d.149857\\$FM3.86220@fed1read02...](mailto:news:LaF%d.149857$FM3.86220@fed1read02...)

>>>> kenseto wrote:

>>>> SR says that the speed of light is a universal constant.

>>>>

>>>> Questions:

>>>> Why a clock second used to define the speed of light is

>>>> not an interval of universal time??

>>>>

>>>> Nobody else even uses the term "universal time".

>>>>

>>> So what?? Everybody knows what the term universal time means.

>>>

>>> Ken Seto

>>>

>>>

>>

>> I don't.

>

> I for one would think that a "universal second" is a clock

> tick of 1 second duration from the natural absolute origin

> of the Universe, as measured in one's own reference frame.

The observer's clock second can be defined as a "universal second". To determine the clock time value for a defined "universal second" in any observed frame the observer uses SR/GR or IRT.

The reason why we need to do such calculations is that there is no "universal clock" exist that keeps the same rate of passage of "universal second" in all frames of reference.

>

> *The catch is: there is no such natural origin. Oh, one can
> create an artificial one (I hereby decree the origin to be
> at Greenwich, England! So there! :-), but SR never needed
> one, and Newton can be rewritten to function without one,
> leading to a variant of ballistic/emissive light theory.*

>

> *Also, AFAICT, Kenseto's error is in not recognizing that
> a 1-second tick in the "absolute" reference frame
> may differ in length from a 1-second tick in the
> observer's. He is not the only one to err in that fashion.*

You don't know what you are talking about. A clock second will contain a different amount of "universal time (absolute time)" in different frames (different states of absolute motion). A clock second in the absolute reference frame contains the least amount of "universal time".

All clock seconds (in all frames) will give the same math ratio for light speed as follows:

Light path length of ruler (299,792,458m)/the universal time content for a clock second co-moving with the ruler.

Ken Seto

Ken Seto

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