Re: Simple Sagnac

Source: http://sci.tech−archive.net/Archive/sci.physics.relativity/2005−08/msg01247.html

- *From*: "Androcles" <Androcles@ MyPlace.org>
- *Date*: Mon, 15 Aug 2005 03:52:12 GMT

<bsr3997@xxxxxxxxxxx> wrote in message
news:1124075728.231384.320960@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx
| Which is why you don't use SR for rotating systems.

Ref: http://www.fourmilab.ch/etexts/einstein/specrel/www/
If at the points A and B of K there are stationary clocks which,
viewed in the stationary system, are synchronous; and if the clock
at A is moved with the velocity v along the line AB to B, then on its
arrival at B the two clocks no longer synchronize, but the clock
moved from A to B lags behind the other which has remained at B
by (1/2)tv^2/c^2 (up to magnitudes of fourth and higher order),
t being the time occupied in the journey from A to B.
It is at once apparent that this result still holds good if the clock
moves from A to B in any polygonal line, and also when the points
A and B coincide.
If we assume that the result proved for a polygonal line is also valid
for a continuously curved line, we arrive at this result: If one of two
synchronous clocks at A is moved in a closed curve with constant
velocity until it returns to A, the journey lasting t seconds, then by
the clock which has remained at rest the travelled clock on its arrival
at A will be (1/2)tv^2/c^2 slow.
[end quote]

Looks like neither of you have a clue.

Androcles

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- ***Follow−Ups***:
  - ♦ ***Re: Simple Sagnac***
    - ◊ *From:* bsr3997@xxxxxxxxxxx

- ***References***:

- ***Re: Simple Sagnac***
  - *From:* Bilge
- ***Re: Simple Sagnac***
  - *From:* Dirk Van de moortel
- ***Re: Simple Sagnac***
  - *From:* sal
- ***Re: Simple Sagnac***
  - *From:* sal
- ***Re: Simple Sagnac***
  - *From:* Daniel Cook
- ***Re: Simple Sagnac***
  - *From:* sal
- ***Re: Simple Sagnac***
  - *From:* bsr3997@xxxxxxxxxxx
- ***Re: Simple Sagnac***
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  - *From:* bsr3997@xxxxxxxxxxx

- Prev by Date: ***Re: Simple Sagnac***
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