Re: My mistake on Time Dilation?

Source: http://sci.tech−archive.net/Archive/sci.physics/2005−02/5755.html

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From: Androcles (*Androcles_at_*)
Date: 02/12/05

Date: Sat, 12 Feb 2005 00:23:20 GMT

"Uncle Al" <UncleAl0@hate.spam.net> wrote in message
news:420CF8A7.2CC8B01F@hate.spam.net...
> guskz@hotmail.com wrote:
>>
>> Sorry,
>>
>> One can get lost when it comes to perspectives and observation, the
>> end
>> fact they MUST ACCELERATE (for their distance increases considerably
>> with time) to compare each others values and by then the clocks would
>> have been re−modified????
> [snip]
>
> Absolutely not. The triplets experiment has no clock acceleration at
> all. Only inertial velocity is required. The clock that passes
> through the most space records the least time on local compairison.
>
> http://sheol.org/throopw/sr−twin−01.html
>
> The clock that goes forward and then backwards travels more undeniable
> from any reference frame. The same is true for somebody in a circular
> orbit hwerein the non−inertial reference frame ages more slowly.
>
> The ratio by which the two have aged at the end when they are back
> together again is the same in all reference frames:
>
> ratio = sqrt(t^2 − x^2 − y^2 − z^2)/t (with units of c=1)
>
> Acceleration breaks the symmetry of who ages faster. To accomplish
> that, the acceleration can occur before the clocks (or the twins)
> exist. Only reference frames matter.
>
*> Inertial frames with relative *velocities* pursue different paths*
> through spacetime in Special Relativity. No clock anomaly is apparent
> in any of them until clocks are compared (by all being local when you
> do it, initial calibration then experiment). Acceleration is
> irrelevant in SR to the running of the clocks