

Re.: The Fourth "Variable" T of Special Relativity is a Constant.

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Dear collaborator in the rejection of special relativity mathematics,

Many of you will never have heard of me. Although an NPA (CNPS) member since 1997 (ID 222), by mistake (Nick Percival is working on it) I am not even on their database. I had long been arguing (letters in Apeiron, Galilean Electrodynamics, my Special Relativity Letter 1997-1999, website since 1999) that the t of SR is not an "independent" variable and that the space - not space-time - of SR is 3D.

Only now I have suddenly realized that, OF COURSE, if ct is the radius of the "lightsphere" in the "stationary" system, like the radius r of any sphere, though the r or ct may assume any value, by (orthodox) definition, that value is a constant. Therefore not only the c but also the t (of the stationary system) is a constant. All the SR equations for the x' , ..., t' , can be expressed in terms of functions of x, y, z only.

(See [page 2](http://home.btconnect.com/sapere.aude/page2.html#idptime) for a draft of the correct form, with the constant t pulled out of the $x(t)$ etc. to show this clearly. As we should know from a figure of the sphere, the symbolic expression now also shows clearly that ct' , or t' , a function of x, y, z , unlike the radius ct in the stationary system, is not a constant, hence not the radius of a sphere. The ct' is merely the position vector for points on the sphere with radius ct , in reference to the off-center origin of the second system.)

While this might seem esoteric or technical, in fact we can now see what is fundamentally wrong with the standard form, as in Einstein 1905, t' "linear in x, t " but there derived for $x = ct$, i.e. $y, z = 0$ more generally in the orthodox form "linear in four variables" (where the ij in a_{ij} are meant to be subscripts) $x' = a_{i1}x + a_{i2}y + \dots + a_{it}t$, $t' = a_{1t}x + \dots + a_{tt}t$.

Why had mathematicians chosen this form? Einstein, with big mathematical teams 1905 working on the "problem", was lucky to be the first to "discover" that the form proves mathematically that dynamic properties (reciprocal contraction, time dilation) are intrinsic to "space time", generalized in general relativity). (The reciprocal factor there is the result of a mistake: when corrected there is no such factor; see my page2.) Einstein's solution "worked" in the matrix algebra (a procedure envisaged by Descartes, first developed by Leibniz, for the explicit purpose of mechanization so that the tedious work of solving equations could be delegated to ignorant "slaves").

The orthodox adoption of the form "linear in four variables" shows that something has gone fundamentally wrong in mathematics itself: mathematicians do no longer understand what they are doing.

As to SR, recognition that the "variable" t is a constant, should give us a lever to unseat not only SR but the currently dominant logic in mathematical physics in its entirety (regression to formalism, symbolic abstraction). As I have been doing for decades, I will be further developing this idea (forthcoming updates for my website). Please forgive me if I leave you with this sketchy message. Our work has been ongoing for generations; we are in a relay race; each of us has the duty to pass the stick on to whoever is ready to run with it. (I am 86, already exhausted; the discovery literally gave me nearly a stroke; I currently don't have the strength to expand further.) I should be grateful if you could

forward this message to any of your friends who might care about such matters.

With good wishes for your work,

Gertrud Walton