

## ABSTRACT

The unnecessary confusion about Dr. Einstein's Special Relativity and why  $E = mc^2$  is incorrect is discussed.

Assume for a few moments that there is no aether:

From Dr. Einstein's first 1906 paper: "On The Electrodynamics of Moving Bodies," it states in the second paragraph

## FIRST POSTULATE

"...the unsuccessful attempts to discover any motion of the earth relatively (sic) to the 'light medium,' suggest that the phenomena of electrodynamics as well as of mechanics possess no properties corresponding to absolute rest. They suggest rather that, as has already been shown to the first order of small quantities, the same laws of electrodynamics and optics will be valid for all frames of reference for which the equations of mechanics hold good. We will raise this conjecture (the purport of which will hereafter be called the 'Principle of Relativity') to the status of a postulate

## SECOND POSTULATE

and also introduce another postulate, which is only apparently irreconcilable with the former, namely, that light is always propagated in empty space with a definite velocity  $c$  which is independent of the motion of the emitting body..."

So far, Dr. Einstein is correct. Light does always go at  $c$  in a void (he calls it "empty space.") He could not explain "Going  $c$  relative to what in empty space?" That is where I solve this problem with the LOCATION concept that light travels  $c$  in a void (empty space) relative to its LOCATION at the instant of emission. The LOCATION concept turns out to define a unique frame in the universe without an aether. See [www.k1man.com/c48.pdf](http://www.k1man.com/c48.pdf) "Special Relativity Replacement."

Not consulting with me in 1906, I was not born yet, Dr. Einstein plowed ahead and tried to derive a mathematical transformation between two frames in uniform relative motion, where I show the math equivalent to what he did in [www.k1man.com/c1](http://www.k1man.com/c1). His math in the 1906 paper is somewhat jumbled and I, a mere Licensed Professional Engineer, simplified his math considerably so it could be understood by anyone. That is what engineers do; makes things understandable. Physicists, like most lawyers, do the reverse. A physicist talks as though he knows what he is talking about when he doesn't. An engineer says "I don't understand this" or simply "I don't know."

Physicists looked at the 1945 fission bombs and said “Look, Dr. Einstein was right,  $E = mc^2$ .” Both Nobel winner, Dr. Richard Feynman, and I both say “Baloney,” fission energy comes from electrostatic energy stored in uranium and not mass changing into energy. Listen eight minutes into [www.k1man.com/Feynman620927.mp3](http://www.k1man.com/Feynman620927.mp3)

Basically Dr. Einstein shot light across a moving rail car (in a “thought experiment”) which moves at  $c$  across the car or a distance  $ct$ . From the train platform, an observer (me) sees the car move distance  $vt'$  relative to me on the platform, while the light on the train is en route across the train car. To keep track of things, remember that my time is prime time. I observe the light and think that it is moving along the hypotenuse of a right triangle set up by vertical  $ct$  on the car and horizontal  $vt'$  on the train platform. This bizarre Dr. Einstein triangle is one triangle constructed in two frames simultaneously that are moving with respect to each other. The light is not actually moving along any such artificially constructed right triangle. What I am observing is motion of light **relative to me**. The light is still going  $c$  on the car, but the velocity relative to me appears to be along the hypotenuse of the triangle with length  $ct'$ . From the Pythagorean Theorem,  $(ct)^2 + (vt')^2 = (ct')^2$ . Here is where Dr. Einstein went wrong. He assumed that the  $c$  values in each frame were equal. He then solved for  $t$  and got time dilation:  $t = [t']$  [square root of  $(1 - v^2/c^2)$ ] followed by all of his other incorrect Special Relativity formulas, through  $E = mc^2$ , which was derived in his second 1906 paper (“Does the Inertia of a Body Depend Upon its Energy Content?”) by expanding his mass change Special Relativity formula with the binomial theorem and dropping all the kinetic energy terms. He drew from this the huge and incorrect conclusion that what remained,  $E = mc^2$ , was saying that all mass has intrinsic energy,  $E = mc^2$ .

Dr. Einstein even mentioned the Easter Bunny or The Tooth Fairy!

Dr. Einstein boldly proclaimed time dilation:  $t = [t']$  [square root of  $(1 - v^2/c^2)$ ] and the new and incorrect physics idea that time can move at different rates. Alice in Wonderland? I disprove all this boloney in my original 2008 paper [www.k1man.com/c1](http://www.k1man.com/c1)

Physicists took from the above the idea that light speed measured by anybody in any frame would always result in  $c$ . That is correct if you measure light speed relative to its LOCATION at the instant of emission. But some physicists and many others measure the relative speed of light,  $c'$ , which varies depending on the relative velocity of the frames, and conclude that the speed of light is not constant.

That is not correct. They are making the same mistake that Dr. Einstein made. They do not understand the difference between the speed of light in a void,  $c$ , and the relative speed of light in a void,  $c'$ .

It takes some doing and considerable mental gymnastics to understand this. The human brain gets a bit funny when thinking about relative motion. As soon as a typical physicist slaps around his or her differential equations, his or her understanding of the problem being worked on goes from very little to none at all.

Now, we can assume for a while that there is an aether. That case is described in detail in [www.k1man.com/c48.pdf](http://www.k1man.com/c48.pdf)

#### SUMMARY

Few people can read through Dr. Einstein's rather jumbled mathematics in his famous 1906 papers. A person like Harry Ricker walks through ancient Egypt and says "These hieroglyphics are all jumbled up!" Harry Ricker, with a master's degree in electrical engineering, looks at Dr. Einstein's 1906 and later papers and says the same thing. Get a grip Harry. Both can be figured out just fine!

Granted, I had to come up LOCATION unique frame theory. Mr. Ricker looked at this for two of three minutes, dismissed it out of hand, and requested to be taken off my e-mail list. Others struggle with my LOCATION theory as I write this. [www.k1man.com/c59.pdf](http://www.k1man.com/c59.pdf)

I welcome Harry Ricker's participation. I am required by law to remove him from my e-mail list if he requests. Perhaps he will change his mind. His choice.

#### HARRY RICKER SECOND LAW OF SPECIAL RELATIVITY

I formulated this thermodynamic sounding law over Mr. Ricker's very strong objections: "Any discussion about Special Relativity quickly degenerates into hopeless confusion and total nonsense."

***"To kill an error is as good a service, and sometimes even better than, establishing a new truth or fact."***

***Charles Darwin***

"Great causes are never tried on the merits; but the cause is reduced to particulars to suit the size of the partisans, and the contention is ever hottest on minor matters." - Ralph Waldo Emerson - From his essay "Nature" 1844

**Mr. Baxter has a degree in Industrial Engineering from the University of Rhode Island and is a Licensed Professional Engineer in Illinois and Maine. He is a graduate of Vermont Academy, which honored him in 1993 as a Distinguished Alumnus with the Dr. Florence R. Sabin Award. It was at Vermont Academy as a student where Mr. Baxter attended a talk and met the very popular relativity author James A. Coleman. Mr. Baxter has been doing research in relativity and physics ever since and is currently Executive Director of the Belgrade Lakes Institute for Advanced Research. His current interests include physics, philosophy, and theology.**



**Glenn A. Baxter, P.E., at his home in Belgrade Lakes, Maine U.S.A.**





Glenn A. Baxter, P.E., age 4, with his dad, Frank H. Baxter (Bachelor of Science Degree, Mechanical Engineering, 1914, Rhode Island State College), and President of Frank H. Baxter Associates, 370 Lexington Avenue, New York City. See [www.k1man.com/fhb](http://www.k1man.com/fhb) and also [www.k1man.com/w10](http://www.k1man.com/w10) and [www.k1man.com/Loons](http://www.k1man.com/Loons)



