

THE NEW RELATIVITY THEORY: ABSOLUTE SIMULTANEITY, MODIFIED LIGHT SPEED CONSTANCY POSTULATE, UNIFORM SCALING OF PHYSICAL PROPERTIES

Robert J. Buenker

*Research Scholar, Department of C-Mathematics and Natural Sciences, Bergische Universität Wuppertal, Gausstr,
Wuppertal, Germany, Europe*

ABSTRACT

The proof that Einstein's theory of relativity is fundamentally flawed is both succinct and definitive. It rests squarely on the fact that an inertial clock cannot change its rate spontaneously. As a consequence, the elapsed times registered on any two such clocks must always occur in strictly the same proportion ($t' = t/Q$). This stands in direct contradiction to the well-known prediction of remote non-simultaneity of the Lorentz transformation which Einstein illustrated with his famous thought experiment of two lightning strikes hitting a train as it passes by a station platform. Moreover, his version of the light-speed constancy postulate states that if a light source moves with constant speed v relative to the origin, the distance traveled by the light pulse relative to the origin is $c \cdot t$. Since the light source itself moves a distance of $v \cdot t$ in the same direction, one finds by subtraction that the corresponding distance traveled by the light pulse relative to its source is $c \cdot t - v \cdot t$. By definition, this means that the speed of the light pulse relative to its source is $c - v$, in direct contradiction to his version of the postulate. There is an alternative version of the postulate, however, which is consistent with all known experimental measurements. It states that the speed of light in free space is only equal to c for an observer who is stationary in the rest frame of the source. This version of the light-speed postulate has been combined with the proportionality relation for elapsed times given above (Newtonian Simultaneity) to obtain a space-time transformation (Newton-Voigt transformation NVT) which is consistent with all known experiments, as well as with Galileo's Relativity Principle. More generally, it is shown that analogous proportionality relations (conversion factors), including those dealing with the effects of gravity, exist for every physical property. The resulting procedures (Uniform Scaling) depend on only two quantities (Q above for kinetic scaling and S for gravitational scaling) that are easily calculated for each pair of rest frames in the universe. All conversion factors are shown to be exclusively integral multiples of S and Q .

KEYWORDS: *Newtonian Simultaneity, Uniform Scaling of Physical Properties, Newton-Voigt Transformation (NVT), Conversion Factors*

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