Einstein's Pseudotensor - a Meaningless Concoction of Mathematical Symbols

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Abstract: In an attempt to make his General Theory of Relativity comply with the usual conservation of energy and momentum for a closed system which a vast array of experiments has ascertained, Mr. A. Einstein constructed, *ad hoc*, his pseudotensor. That it is not a tensor is outside the very mathematical structure of his theory. Beyond that, it violates the rules of pure mathematics. It is therefore a meaningless concoction of mathematical symbols.

Proof of a Meaningless Concoction of Mathematical Symbols

The Riemann-Christoffel symbol of the second kind is denoted $\Gamma^{\alpha}_{\beta\gamma}$, defined by,

$$\Gamma^{\alpha}_{\beta\gamma} = \frac{1}{2} g^{\alpha\omega}\left(\frac{\partial g_{\omega\gamma}}{\partial x^{\beta}} - \frac{\partial g_{\gamma\beta}}{\partial x^{\omega}} + \frac{\partial g_{\beta\omega}}{\partial x^{\gamma}}\right) \tag{1}$$

Note that $\Gamma^{\alpha}_{\beta\gamma}$ is not a tensor and is composed solely of the components of the metric tensor and their first derivatives.

Mr. Einstein's pseudotensor is denoted t^{α}_{σ}, defined by [1],

$$t^{\alpha}_{\sigma} = \frac{1}{\kappa}\left(\frac{1}{2}\delta^{\alpha}_{\sigma} g^{\mu\nu}\Gamma^{\lambda}_{\mu\beta}\Gamma^{\beta}_{\nu\lambda} - g^{\mu\nu}\Gamma^{\alpha}_{\mu\beta}\Gamma^{\beta}_{\nu\sigma}\right) \tag{2}$$

where κ is a constant.

Although t^{α}_{σ} is not a tensor, Mr. Einstein and his followers claim that it acts 'like a tensor' under linear transformations of coordinates, so it is, they claim, meaningful, both mathematically and physically. Since it acts 'like a tensor' it can be contracted 'like a tensor', to produce an invariant t, thus,

$$t = t^{\alpha}_{\alpha} = \frac{1}{\kappa} g^{\mu\nu}\Gamma^{\lambda}_{\mu\beta}\Gamma^{\beta}_{\nu\lambda} \tag{3}$$

From eq.(1) it is easily seen that the invariant eq.(3) is a first-order intrinsic differential invariant; that is, it is an invariant composed solely of the components of the metric tensor and their first derivatives. But the pure mathematicians proved [2,3], in 1900, that first-order intrinsic differential invariants **do not exist**. Thus, Mr. Einstein's pseudotensor is a meaningless concoction of mathematical symbols and therefore cannot be used to represent anything and cannot be used to do calculations. Nevertheless, Mr. Einstein and his followers use it to represent the energy-momentum of his gravitational field and hence his gravitational waves, and, miraculously, do calculations with it; a feat beyond the capacity of pure mathematics and rational thought.

General Relativity cannot localise its alleged gravitational energy, so Mr. Einstein's gravitational waves do not exist [3,4]. This is the more so since Mr. Einstein's claim [5] that form-invariance of the Theorem of Pythagoras under Lorentz transformation is form-invariance of his expanding spherical wave of light, is false. Under Lorentz transformation his spherical wave of light is an expanding translated ellipsoidal wave of light with a non-static centre [6]. Consequently the ideological and occult Theory of Relativity is logically inconsistent and therefore false [6, 7].

References

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