

Re: The Absurd Claim of the Metric as a Tensor

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You would need 50 more IQ points to realize that you're incompetent.

Koobee Wublee wrote:

I see that the discussion of whether the metric qualifies as a tensor or not has splintered into many different localized groups which are very confusing. Thus, I would like to put everything into a nutshell of the pros and cons. Although the tensors can cover more ranks, the discussion should only be limited what GR covers. That is rank 2 tensors or the 4-by-4 matrices.

The definition of a tensor as agreed by almost everyone says that any matrix invariant under a coordinate transformation is a tensor while the elements to the matrix can change under the same transformation.

**** Pros' argument:

The geometry described is invariant under any transformation. Thus, it can be represented by an operator operating on the same vector twice.

$$ds^2 = f(dq, dq)$$

Where

- ** ds^2 = the invariant geometry
- ** $f()$ = the operator
- ** dq = the coordinate vector

Of course, we all know that

$$ds^2 = g_{ij} dq^i dq^j = g'_{mn} dq'^m dq'^n$$

Where

- ** dq' = Different coordinate system

The question is the matrices ($[g] = [g']$).

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**** Cons's argument:

According to the pros, although the elements of the matrices ($g_{ij} \neq g'_{ij}$), the matrix ($[g] = [g']$). In doing so, they can never describe what constitutes how these 2 matrices are identical. They avoid it as if a plague in fact. They can only hand-wave it by saying over and over again that they are indeed identical.

**** What is at stake?

Does it matter if the metric is a tensor or not for the sake of the mathematics involved? Yes, it does. The interpretation to the infinite number of solutions to the field equations is at stake. The existence of the black holes is at stake.

Apparently, the pros have never followed through the derivation of the solutions to the field equations. Each solution in terms of g_{ij} is only valid to the choice of coordinate system where each solution very different from the others must describe a different geometry using the same coordinate system. This means the field equations do have an infinite number of solutions in which the Schwarzschild metric, Schwarzschild's original metric, or any other is just as valid as any other where each describes a different geometry. This would shatter the general theory of relativity.

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