Re: The Trouble with Physic(ist)s is that they are Not Even Wrong

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- *From*: Tom Roberts <tjroberts137@xxxxxxxxxxxx>
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LEJ Brouwer wrote:

> I 'know' that the Schwarzschild
> solution is wrong, and I also 'know' that my proposal must be either
> correct, or if not completely correct at least on the right path.

The rest of us want to do physics, not whatever it is you are trying to do. What God told you this? Why do you attempt to discuss such divine revelations in a physics newsgroup?

> I
> can't tell you precisely how I know − it is just a very strong gut
> feeling, and when I feel like this, I am usually right.

Here all you've shown is that you do not understand the MANY papers and books that have been written about this. You merely re−hash old objections long refuted, and old mistakes long corrected.

> I actually admire you a great deal. You are like a walking
> encyclopaedia on gravity, yet you do not appear to be at all
> pretentious or arrogant about it.

Yes, Steve Carlip is all of that.

> BTW, could you please explain what you mean when you say that my
> infinite cone has an 'edge'?

I assume you mean your attempt to glue the two exterior regions of the Kruskal manifold together. The "edge" occurs when one follows an infalling timelike geodesic −− when it reaches r=2M all of a sudden it is impossible to compute the geodesic, because the metric is not C^2 there. Steve implied there is a boundary

there, but I believe this can be done such that the manifold is continuous there, just not smooth. This is not a viable physical model because the Einstein field equation must be valid everywhere, and it cannot be valid on either a boundary or a locus where the metric is not C^2.

One can glue the two regions together there topologically.
But in doing that one must clearly distort the Kruskal
plane (i.e. the U−V coordinate plane) −− that is OK because
that can be a diffeomorphism that carries the metric
along; but at best the metric can be only C^0: for the metric
to be C^n its first n derivatives must all be equal at the
join, and the symmetry of the two exterior regions means they
must vanish; for this metric the first derivative is nonzero.

Note that on physical grounds the metric must be C^2 for two
different reasons: to satisfy the EFE, and for geodesic paths
to be C^1 (a worldline must have a 4−velocity everywhere).

["C^n" means continuously differentiable n times.]

[Hmmm. The U−V plane suppresses the two angles; I am not 100%
certain that those suppressed dimensions do not prevent
the gluing I describe; I assume that it is OK. You also
implicitly assumed this is OK.]

The trouble with physic(ist)s is not that we are "not even wrong", but rather, from your point of view, the trouble is that we don't accept your "strong gut feeling" as evidence of anything except the fact that you are not doing science. <shrug>

Tom Roberts
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