

Re: GR1916, available online.

Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2007-12/msg00959.html>

- *From:* Alen <alen1@xxxxxxxxxxxxxxxxxx>
 - *Date:* Thu, 13 Dec 2007 17:00:59 -0800 (PST)
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On Dec 14, 1:48 am, Tom Roberts <tjroberts...@xxxxxxxxxxxxxxxxxx> wrote:

Alen wrote:

[...] we appear
to have the problem of an unvisualisable manifold.
[...] this appears to be
impossible to visualise.
[...] I think, nevertheless, that the severe
problems involved in any attempt to visualise the
pre-existing gravitational manifold should be taken
seriously, [...]

Do you seriously think that nature cares about your personal abilities
(or lack thereof)? Is there ANY reason that the world and its underlying
mechanisms must be "visualizable" to humans?

If there is no such constraint on nature, then there is no such
constraint on valid physical theories.

Tom Roberts

I think that the answer to that is not as straightforward
as your remarks imply. Indeed, this is a very critical
question for modern theoretical physics in particular.

Hitherto, we were always able to visualise what a theory
was saying. We could visualise the actions of forces and
their inertial responses, the generation of trajectories,
the existence of spherically symmetrical fields in
space, and field sources, etc. Now we have SR and
quantum theory, and so-called 'counterintuitivity',
involving the suggestion that there are sources of
measurable results that cannot be 'visualised' or 'known'
or made to appear 'sensible' to a mind, etc.

I share the fundamental view of Berkeley, that nothing can

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exist in the absence of being observed by any mind. When we speak, we speak as minds, and everything to which we make any reference is always referred to our capacity for observation and visualisation, because no mind can reach beyond mind itself, which would be a contradiction in terms.

Nature may not 'care' what I, personally, am able to visualise, but that does not mean that non-visualisable theories should be acceptable. I adopt the view that, if a theory specifies what is counterintuitive and cannot be visualised by a mind, it should be regarded as being either wrong or incomplete. The alternative is, in essence, the death of science and knowledge.

Alen

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