Re: The secret quantum kernel of relativity

Source: http://sci.tech−archive.net/Archive/sci.physics.relativity/2008−03/msg01793.html

* *From*: "Sue..." <suzysewnshow@xxxxxxxxxxxx>
* *Date*: Wed, 19 Mar 2008 23:01:03 −0700 (PDT)

On Mar 19, 4:31 pm, "Ken S. Tucker" <dynam...@xxxxxxxxxxxx> wrote:

> On Mar 19, 11:59 am, "Sue..." <suzysewns...@xxxxxxxxxxxx> wrote:
>
> > > On Mar 16, 10:57 pm, "Ken S. Tucker" <dynam...@xxxxxxxxxxxx> wrote:
> > > [...]
> > >
> > > > > Careful now. It the theory correctly
> > > > > predicted
> > > > > presence of the plasma because it represents
> > > > > an increase of the density of energy to
> > > > > the stress energy tensor then you might sell
> > > > > the theory short.
> > >
> > > > Ok, you be careful to, how does the plasma
> > > > theory predict the perihelion advance?
> >
> > << The theory of General Relativity explaines the advance
> > of Mercury perihelion using space curvature and the
> > Schwartzschild metric. We demonstrate that this
> > phenomena can also be interpreted due to the
> > cogravitational field produced by the apparent
> > motion of the Sun around Mercury giving exactly
> > the same estimate as derived from the Schwartzschild
> > metric in general relativity theory. This is a
> > surprising result because the estimate from both
> > theoretical approaches match exactly the measured value.
> > The discussion and implications of this result is

out of the scope of the present work. >>http://arxiv.org/abs/gr−qc/0005040

That seems to suggest that any theory which includes
a retarded potential for the speed of light would
predict Mercury's advance. There is a good illustration
on page 9 of the 74KB pdf if you need to justify
the download to the Dialup−Police. :o)

Sue...

Another effect that is (IMO)
a GR effect
is the quantization of
electronic atomic
orbits, in that, GR provides
a firm basis
for the otherwise adhoc
Quantum Theory.

That is solar system atoms.

No, the atoms that make up your body.
Regards
Ken S. Tucker− Hide quoted text −

− Show quoted text −

Hi Sue.
Let P = P_0/sqrt(g_00).
Find dP/dr, let's see what you get.

I'll get stuck in the goo trying to do that.
But you might see it with the covers off here:
http://en.wikipedia.org/wiki/Einstein_tensor
http://www.mathpages.com/home/kmath567/kmath567.htm

It tastes like photons. I don't buy two left

gloves so I can use one inside−out and I don't
go out my way to think with photons.

If you give Mercury a shove, it won't wait
'till it hears from the Sun to shove back.

This ?might? be a correct description of the space
surrounding each object:

http://upload.wikimedia.org/wikipedia/commons/thumb/5/5c/Gravwav.gif/150px−Gravwav.gif
http://en.wikipedia.org/wiki/General_relativity#Gravitational_waves

But there are other terms that can describe the space
that result in a cross−check rather than a briefer
catechism pointing back to the same empty mechanism.

<< apart from the arbitrariness governed by the
free choice of coordinates, the
gm v −field shall be completely determined
by the matter. Mach's stipulation is favoured
in general relativity by the circumstance
that acceleration induction in accordance
with the gravitational field equations really
exists, >> _−A.Einstein
http://nobelprize.org/nobel_prizes/physics/laureates/1921/einstein−lecture.html

It conceals too much. There is no reason to tune equations
so they will fit on the back of an envelope when tube
commuters have super−computers around their neck
playing their favorite tunes and calculating a
GPS pseudorange between beats of the music. :o)

http://www.research.ibm.com/grape/grape_ewald.htm

<< Studies of coherent matter waves and Bose−Einstein
condensation are now an important and growing part
of atomic, molecular and optical physics around the
world. These investigations are giving us new insights
into the nature of coherent assemblies of ultra−cold
atoms. These mesoscopic systems, newly available in
the laboratory, are accessible to first principles
theory, making them a superb test ground for many−body
physics. Articles in this issue show how this has
driven the development of new quantitative techniques
for the finite temperature quantum fields needed to
represent trapped and partially condensed gases.
The fact that condensates are trapped and inhomogeneous
means one has to deal with matters glossed over in
the homogeneous case. A good example is the scale

lengths relevant for vortex formation that can be comparable to the size of the whole condensate. The dynamics of formation and evolution of these features, as well as many others, can also be accessed directly in real time. The ability to manipulate directly the state of a condensed gas has enabled experimentalists to perform an extraordinary range of observations of the many−body dynamics of condensates. The fact that the interactions between the particle are tuneable, using external fields, adds enormously to the range of issues we shall see explored in the next few years. In the years to come, I expect us to see a yet wider range of studies where molecular systems play an increasing role. The coupling of controlled radiation and matter wave fields will also, I am sure, produce broad new avenues for new investigations. The subject has brought together physicists from atomic and optical physics with others from different areas; in particular condensed matter physics. Indeed, this cross−fertilisation has been a real treat for those of us involved in the field. It is difficult not be excited about the possibilities for this rapidly advancing field! >>
−−Keith Burnett Honorary Editor, J. Phys. B: At. Mol. Opt. Phys.
http://www.iop.org/EJ/abstract/0953−4075/33/19/001

<< The interaction energy between two dissimilar non−ionized molecules or atoms is calculated in fourth−order perturbation theory and dipole approximation. The interaction Hamiltonian involves the charge distribution with the complete Maxwell field and not only the Coulomb interaction between charges. At close separations between the two systems (still large compared with molecular diameters) the interaction energy is of course that corresponding to the London force. However, for separations large compared with the characteristic wavelengths associated with transitions within the molecules the London force is modified considerably. In the case of two molecules in the ground state this modification was first found by Casimir & Polder. If one of the molecules is in an excited state new effects appear at these large distances. The energy of interaction depends on the orientation of the transition moment in the excited molecule with respect to the vector displacement between the two systems. In both transverse and longitudinal orientations the potential law is considerably stronger than the R−7 of the ground state−ground state interaction. For transverse orientations there is an unmodulated R−2 energy dependence which though very weak individually could give rise to considerable effects when the excited molecule is in a macroscopic environment. >>
http://adsabs.harvard.edu/abs/1965RSPSA.286..573M

Sue...

Regards
Ken S. Tucker−

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