

Re: Proposing Physics Experimentation with Eff. Premises

Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2004-09/4012.html>

From: Bill Hobba (bhobba_at_rubbish.net.au)

Date: 09/14/04

Date: Tue, 14 Sep 2004 22:11:22 GMT

"Peter Kinane" <pkinane@iol.ie> wrote in message
news:d8097fcc.0409140154.4b3591d9@posting.google.com...
> "Bill Hobba" <bhobba@rubbish.net.au> wrote in message
news:SXq1d.29958\$D7.23831@news-server.bigpond.net.au...
>>
>> "Peter Kinane" <pkinane@iol.ie> wrote in message
>> news:d8097fcc.0409131521.15564658@posting.google.com...
>>> Proposing Physics Experimentation with Effectuationism Premises
>>>
>>>
>>> This subject is somewhat in the context of Einstein's paper,
>>> reproduced here
>>> <http://leiwien.tripod.com/eingra.htm>
>>>
>>> "In Newtonian physics the elementary theoretical concept on which the
>>> theoretical description of material bodies is based is the material
>>> point, or particle. Thus matter is considered a priori to be
>>> discontinuous. This makes it necessary to consider the action of
>>> material points on one another as "action at a distance." ": So, with
>>> Eff. premises the elementary theoretical concept on which the
>>> theoretical description of material bodies is based is that of matter
>>> effecting through relationship of 'forces'. Thus matter is considered
>>> a priori to be a demarcatory interactivity (somewhat discontinuous,
>>> but yet somewhat continuous, indefinite, dynamic, relationships). This
>>> would not give rise to the concept of "action at a distance".
>>>
>>> Also, this system would only trade in effects – not 'the forces'
>>> through which effects effect.
>>
>> 'effects effect'?
>
> I'll leave this point for now, if I may.
>
>>
>>>

>>> *Further, the system would employ just one frame of reference – there*
>>> *would be no 'jumping' around of FORs.*
>>
>> *In other words there is preferred frame of reference and a violation of*
the
>> *POR – care to provide actual evidence rather than philosophical mumbo*
jumbo?
>
> *In other words, the relational nature of value would be recognised,*
> *one would then _select_ a FOR, and then get on with attempting to*
> *develop a system – thereby expecting to avoid 'jumping' around of*
> *FORs.*

Not in other words Peter. If the laws of physics are the same in all inertial frames there is nothing preventing us logically from looking at phenomena from different frames and seeing what that tells us – see for example the well known situation you described below. Just because you do not like something does not mean it is not a logically valid procedure.

>
>>
>>>
>>>
>>> *Is it possible to develop a system of Physics from here, but quite*
>>> *independently of (Einstein's) Relativity? In effect, what equations*
>>> *would hold for relationships of 'forces'? Perhaps this leads to*
>>> *Maxwell's electrodynamics and perhaps to this concept expressed here*
>>> *<http://www.fourmilab.ch/etexts/einstein/specrel/www/> "But if the*
>>> *magnet is stationary and the conductor in motion, no electric field*
>>> *arises in the neighbourhood of the magnet. In the conductor, however,*
>>> *we find an electromotive force, to which in itself there is no*
>>> *corresponding energy, but which gives rise—assuming equality of*
>>> *relative motion in the two cases discussed—to electric currents of*
>>> *the same path and intensity as those produced by the electric forces*
>>> *in the former case".*
>>>
>>> *It is not that I am particularly clear about what is meant in the last*
>>> *quote, but perhaps the last sentence of same may be a good basis from*
>>> *which to experiment and develop equations.*
>>
>> *What is meant Peter is a demonstration of the POR. Regardless of what*
>> *frame we consider stationary – the frame of the magnet or the frame of*
the
>> *conductor then the forces (on the charges in the wire) are the same (as*
is
>> *required by classical mechanics) yet it traditionally (according to*
>> *Maxwell's equations) it has a different physical explanation – one*
results
>> *from the lorentz force law (the conductor is moving and contains charges*
>> *that have a velocity relative to a magnetic field) the other results*
from a

- > > *changing magnetic field creating an electric field that moves the charges*
- > > *(in this case the wire is considered stationary).*
- >
- > *Good; it suggests that the proposal of this thread has some weight.*
- > *Let's simply select one FOR and get on with business.*

Since the context of your post so far content your usual drivel against frame jumbling it suggests nothing of the sort.

- >
- > *The point is the only*
- > > *thing of relevance is their relative motion so the underlying physics must*
- > > *really be the same – this leads to the idea of the equations of EM being*
- > > *Lorentz invariant ie the equations describing it take the same form in all*
- > > *frames. And indeed Einstein demonstrated with the Lorentz transformations,*
- > > *for EM, they do. But it is my understanding Poincare had already done*
- > > *that – but Einstein's methods were more fundamental.*
- >
- > *Good; same as above.*

Same as above for me.

- >
- > >
- > > *Peter – the above is really fundamental to an understanding of EM. May I*
- > > *suggest you acquaint yourself with what is going on – see*
- > > *<http://www.cse.secs.oakland.edu/haskell/SpecialRelativity.htm>*
- > >
- >
- > *So, perhaps now you can focus on selecting a FOR, in accordance with*
- > *the proposal of the thread.*

Your of refernece where 'effects effect'

- >
- > *Re "In the conductor, however, we find an electromotive force, to*
- > *which in itself there is no corresponding energy []": For now, when I*
- > *said I am not particularly clear about what is meant here I*
- > *principally had in mind the meaning of "to which in itself there is no*
- > *corresponding energy"?*

The energy to move the electrons comes from the electric field for the stationary conductor – or do you wish to deny faradays law?

Bill

sci.physics.relativity: Re: Proposing Physics Experimentation with Eff. Premises

>

> --

> *Peter Kinane*

> <http://www.effectuationism.com/>