

Re: Does a Magnet's force weaken with the distance cube?

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Source: <http://sci.tech--archive.net/Archive/sci.physics.relativity/2006-03/msg00819.html>

- *From:* "Bill Hobba" <rubbish@xxxxxxx>
 - *Date:* Sat, 11 Mar 2006 23:22:06 GMT
-

<guskz@xxxxxxxxxxx> wrote in message
news:1142096677.425220.207700@xx

Bill Hobba wrote:

<guskz@xxxxxxxxxxx> wrote in message
news:1141921767.804453.128640@xx

Bill Hobba wrote:

<guskz@xxxxxxxxxxx> wrote in message
news:1141834335.950690.17520@xx

<http://hyperphysics.phy-astr.gsu.edu/hbase/forces/isq.html#isq>

The link above shows
Gravity, Light(photons), and
Charge (I believe
sound waves also): all these
weaken with the distance
square.

How about Magnets...I think
there's is the distance cube
which is
strange since EM waves are
made of photons and
photons above weaken
with the distance square???

Then you thought wrong – magnets also
obey the inverse square law. Of

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course since magnetic monopoles have never been found the fact they would obey similar rules to charges is deduced.

Also from the same link, it makes me believe all these three forces (Gravity, photons, charge) are the very same with the ***ONLY*** difference metaphorically speaking is they each have a different mass(energy)???

Then you are wrong. EM (unified by Maxwell in the 19th century) is one field described by a 4 vector. Gravity needs a 4x4 tensor called the metric.

Therefore could Gravity, charge, photons be virtually the same in the same metaphorical way as light and EM waves are the same (both made of photons).

Check out Kaluza Klein theory.

A scalar as a 5th dimensions

Your inability to comprehend is showing again – that has nothing to do with it.

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http://en.wikipedia.org/wiki/Kaluza-Klein_theory

quote:

1. "Theodor Kaluza who extended general relativity to a five-dimensional spacetime"
2. "the final part (meaning 5th dimension) an extra scalar field now termed the "radion".

When giving direct quotes give direct quotes not mangled bits with your own words added whose sole purpose is to try and support what the article does not support – all such tactics do is provide further evidence for the obvious – your comprehension ability is appalling. The quote is:
'The resulting equations can be separated out into further sets of equations, one of which is equivalent to Einstein field equations, another set equivalent to Maxwell's equations for the electromagnetic field and the final part an extra scalar field now termed the "radion".'

3. Meaning of scalar and 5th dimension, quote: "The distance a particle can travel before reaching its initial position is said to be the size of the dimension."

If you meant size then you should have said size – the fact you did not does cause something to spring to mind however – let me think – oh yea got it – clutching at straws.

#3 above speaks of a scalar and not a vector

Nothing in that article says anything about 'scalar as 5th dimensions' – what you wrote does not even make semantic sense – if you believe it does – as Tom would say – shrug. Either say what you meant in terms of something that does make sense – or well take up -----.

example of vectors: x,y,z vectors form the balloon
example of scalar : the width of the balloon = scalar and the 5th dimension

You easily say "no" that's not what they really mean but I haven't found any arguments while reading the article that contradict it?

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That because you do not understand the terms you bandy about.

Bill

seems too strange for my tastebuds,
strange how it can make a function out of the 4 other vectors
with it
also being a vector but a scalar instead??
Are they saying something like 5th dimension =
 $\text{scalar} * x * y * z * t$?

No.

It seems almost (using 3d instead 4d as an example) like
saying the
scalar width of an inflated balloon made of x,y,z dimensions
forms
another dimension? Are they saying that intensity or density
forms a
5th dimension?

How about reading some articles on it and this time making an effort to
understand what they say? To start you off here is one
http://en.wikipedia.org/wiki/Kaluza-Klein_theory

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Therefore the main
difference between Gravity,
charge, and photons
would be the Energy(mass)
that they contain.

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For Gravity = mass (= energy) = density * volume,
For Charge = intensity * volume,
For Photons = intensity * volume

???

No.

Bill