

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/msg00772.html>

- *From:* "guskz@xxxxxxxxxxx" <guskz@xxxxxxxxxxx>
 - *Date:* 11 Mar 2006 09:04:37 -0800
-

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
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

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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 dimension

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

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".
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."

#3 above speaks of a scalar and not a vector

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

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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?

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 = 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

Bill

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

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

???

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No.

Bill