

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

## 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/msg00785.html>

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- *From:* "guskz@xxxxxxxxxxxx" <guskz@xxxxxxxxxxxx>
  - *Date:* 11 Mar 2006 09:31:31 -0800
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guskz@xxxxxxxxxxxx wrote:

Bill Hobba wrote:

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

Bill Hobba wrote:

<guskz@xxxxxxxxxxxx> 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

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obey similar rules to charges is deduced.

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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 dimension

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

[http://en.wikipedia.org/wiki/Kaluza-Klein\\_theory](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".

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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

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?

My Moma didn't raise no dummy.

Even more from the same link that agains says the same thing:

Quote

"Radon, .... is a scalar field ..... It can be interpreted as the length or size of the fifth dimension as a function of the usual four dimensions of spacetime.

Seems to basically say the 5th dimension is a LENGTH (or width as I compared it to a balloon) and not a an additional directional vector as a "FUNCTION OF" the 4 other dimensions of spacetime

Actually I'm a little mixed up....but lets not pretend this simple information and belittle me as a finger painter:

to keep simple say we only 2 use vector x and y (instead of the initial 4 vectors of spacetime)

Now from the definition above:

The 5th dimension (or 3rd in this case) would be the perimeter (instead of surface since it's only 2 vectors and thus 2 dimensional) of the function for the x and y vectors since as they say above it's the total distance "TO TRAVEL" in the 2 dimensional space (of the x and y vectors) to reach the initial position.....

if  $y = x^2$  is the function

$y = 2x^3 = \text{area}$ , i think

$y = 1/2 x = \text{perimeter}$ , i think....thus the scalar (Radon) would be

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1/2???

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](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 \*

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volume,  
For Photons = intensity  
\*volume

???

No.

Bill