

Title : A hypothesis in electrostatic phenomenon

Abstract : This article aims to define electrostatic phenomenon being related to space-time curvature

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Article

To exert a force on an object by another one, we need a connection between these two objects, simple force effect is by pushing another object or by pulling it with a rope, both connections, the rope and my hand are connected well to the object.

One mass can exert a force through space-time connection even if space-time is a geometric figure but in fact it plays a role as a mediator to connect two objects in order for the force to exist, the connection doesn't matter to be material but at least let's say space-time curvature is a geometric connection between any masses in the universe. It is a connection because one mass interacts with space-time and this space-time interacts with the other object, so it is a mediator or a connection in a way that one mass affects another mass at distance even though they don't touch each other.

Electric charge uses this mediator, i.e. space-time to interact with another charge but not in the same way, i.e. in a form of curvature, but in another way, however there still is a mediator which charges can use to interact with other charges.

I don't believe that electric field exists by its own, anything that exists and spreads should have an energy source like, light, rays, radiation, etc, if field spreads there should be potential for its spreading, so in fact electric charge field and magnetic field don't exist by their own they exist through the effect of space-time curvature.

The core of hypothesis is as simple as this:

There is connection between any masses in the universe, this connection is in form of a mediator "space-time", charges use this mediator to interact with each other, the stronger the force between two masses the stronger this mediator and the stronger the interaction between two charges and the stronger the force between the charges. So as masses come close to each other their gravitational force increases and if there are on these two masses charges their electric force increases as well with the same inverse square law.

If two masses are close to each other the mediator will be stronger, space-time will be more curved, so if two charges connect to each other through this curved space-time then the lines of electric field will flow the exact geometric lines of space-time curvature, "I said electric field doesn't exist by its own, so how it has lines? Simply the lines are the same as the space-time lines but the level of connection is at charges level, that is charges interact with charges and masses interact with masses, but masses don't interact with charges.

So the charge lines will follow exactly the lines of space-time curvature, but what if the charge value increases does that mean it curves space more and increase gravity? The answer is no.

Spacetime curvature is just a mediator a connection for charges to interact, it is a mediator for charge A to touch charge B, however the stronger the curvature is the more efficient this touching process is, if we have higher charge we have higher force between these two charges, two charges interact through space-time mediator but they don't affect this mediator, in brief words space-time curvature is a mediator through which charges interact and force appears between them.

The more space-time curvature the stronger the two charges interact, the closer to masses or charges to each other the stronger the force is, something like using strong spring to exert force on an object, and using another weak spring to exert force on the same object, in the case of stronger spring the force on the object will be big since little of the energy is stored inside the spring, while in the case of weaker spring the force on the object will be smaller since more of it stored in the spring, the spring here is a mediator the connects my hand with the object.Space-time curvature is like a spring or rubber when mass is put on its centre.

Conclusion :

space-time works as a mediator to connect two charges with each other to interact.

Charge field doesn't exist but charge virtual field lines " charge virtual field lines are the path two charges interact with each other" are exactly the same as space-time curvature lines . The stronger the curvature lines is the stronger the charge virtual lines are "bigger curvature for those virtual lines" the strong the force is"electric force and gravity".

When the charge increases in its value the electric force will be stronger and that is just because the charge value is multiplied and the effect is multiplied but the virtual lines don't curve more and they don't affect space-time curvature nor gravity.