

<https://www.youtube.com/watch?v=N79rTxce6bI>

What's the Fifth Force?

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Czech commentary using google-translator

(01)- Physicists **may** have found a fifth force. Uh, that sounds exciting. And since it sounds so exciting, you see it in headlines frequently, so frequently you probably wonder how many of these fifth forces there are. And what's a fifth force anyway? Could it **really** exist? **If** it exists, is it good for anything? That's what we'll talk about today. Before we can talk about the fifth force, we have to briefly talk about the first four forces. To our best current knowledge, all matter in the universe is made of 25 particles. (!) Physicists collect them in the "standard model" **see table** <http://www.hypothesis-of-universe.com/index.php?nav=ea> that's kind of like the periodic table for subatomic particles. These 25 particles are held together by four forces. That's **1)** gravity, apples falling down and all that, **2)** the electromagnetic force, that's a combination of the electric and magnetic force which really belong together, **3)** the strong nuclear force that holds together atomic nuclei against the electromagnetic force, and **4)** the weak nuclear force that's responsible for nuclear decay. All other forces that we know, for example the van-der Waals force that keeps atoms together in molecules, friction forces, muscle forces, these are all emergent "**derived forces**" forces. That they are emergent means that they derive from those four fundamental forces. And that those forces are fundamental means they are not emergent – they cannot be derived from anything else. Or at least we don't presently know anything simpler that they could be derived from. Now, if you say that gravity is a force in the wrong company, someone might point out that Einstein taught us gravity is not a force. **Yes, that guy again. According to Einstein, gravity is the effect * manifestation of a curved space-time.*** **The other three forces will also be a manifestation of curved space-time, but in configurations that can and should be described by linear interactions versus gravity.** Looks like a force, but isn't one. Indeed, that's the reason why physicists, if they want to be very precise, will not speak of four fundamental forces, **but of four fundamental interactions.** But in reality, I hear them talk about the gravitational force all the time, so I would say if you want to call gravity a force, please go ahead, we all know what you mean. As you can tell already from that, what physicists call a force doesn't have a very precise definition. For example, the three forces besides gravity – the electromagnetic and the strong and weak nuclear force – **are similar in that we know they are mediated by exchange particles.** So that means if there is a force between two particles, like, say, a positively charged proton and a negatively charged electron, **then you can understand that force as the exchange of another particle between them.*** **and we should (could) understand the "exchange particle" in the "nonlinear equation" as it jumps like a "hot potato" to maintain "balance" see my ideas here:** http://www.hypothesis-of-universe.com/docs/h/h_082.jpg

http://www.hypothesis-of-universe.com/docs/aa/aa_004.pdf

http://www.hypothesis-of-universe.com/docs/aa/aa_002.pdf

http://www.hypothesis-of-universe.com/docs/aa/aa_008.pdf

http://www.hypothesis-of-universe.com/docs/aa/aa_013.pdf

http://www.hypothesis-of-universe.com/docs/i/i_141.doc

http://www.hypothesis-of-universe.com/docs/h/h_052.pdf

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http://www.hypothesis-of-universe.com/docs/eng/eng_008.jpg

http://www.hypothesis-of-universe.com/docs/eng/eng_002.pdf

http://www.hypothesis-of-universe.com/docs/g/g_073.pdf

http://www.hypothesis-of-universe.com/docs/g/g_039.pdf

The idea of a "hot potato" (alternating symmetries with asymmetries) is a "solution" to maintaining a "balance" between imbalances něco or something like "Schrödinger's living and dead cat" à "stop"; It is my non-mathematical expression of how to understand and balance symmetry states with asymmetric states. This box includes "understanding" and Heisenberg's uncertainty principle - it's all HOT POTATO, that's all, this vision is the solution for connecting QM and OTR. The universe does not know the equations; the equations exist only on paper by the masters of scientists, not in space.

This is important to understand. Interactions are not "equations" but "inequalities" !! In the universe, "equations" do not exist, only artificially on paper.

For the case of electromagnetism, that exchange particle is **the photon**, the quantum of light. For the strong and weak nuclear force, we also have exchange particles. For the strong nuclear force, those are called "**gluons**" because they "glue" quarks together, and for the weak nuclear force, these are called the **Z and W bosons**. * Try to think that these "force carriers - bosons" are basically "hot potatoes" that "jump" from the left side of the equation to the right side of the equation ... because if they didn't jump, it would be an "imbalance" = inequality. If "equilibrium" (the equations of physicists) prevailed in the universe, the universe would become motionless, there would be no genesis Gravity, again, is the odd one out. We believe it has an exchange particle – that particle is called the "**graviton**" – **but we don't know whether that particle actually exists**, it's never been measured. And on the other hand, we have an exchange particle to which we don't associate a force, and that's the **Higgs-boson**. The Higgs-boson is the particle that gives masses to the other particles. **?????** **It does that by interacting with those particles, and it acts pretty much like a force carrier. Indeed, some physicists *do* call the Higgs-exchange a force. But most of them don't.** * Mass according to my HDV is a "property" of matter, just as charge is a property of matter, or spin. Property due to some same denominator for all matter, ie due to "certain prescribed"

curvature of some dimension for all elements of matter. My opinion on the higgs-mechanism is this:

http://www.hypothesis-of-universe.com/docs/b/b_301.pdf ;
http://www.hypothesis-of-universe.com/docs/b/b_302.pdf ;
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http://www.hypothesis-of-universe.com/docs/g/g_052.pdf

The reason is that **the exchange particles** of electromagnetism, the strong and weak nuclear force, and even gravity, hypothetically, **all come out of symmetry requirements**. **The universe has no requirements, but physicists have them from their "mathematical abstractions"**. **The Higgs-boson doesn't**. You say the higgs-boson is not an exchangeable particle, it just adds weight to everything... ??? The Higgs-boson does not add mass if it "adds" some specific curvature of some dimension.., to the "mass package" = to the elementary particle That may not be a particularly good reason to not call it a force carrier, but that's the common terminology.* **So higgs is not a carrier of force, but a carrier of the mass he has, he gives her another particle, and even after he has given her another particle, he still has that mass? (Otherwise, we would certainly find Higgs at CERN, who has already given up his weight and is poor himself...)** Four fundamental forces, among them is gravity, which isn't a force, **but not the Higgs-exchange, which is a force. Yes, it's confusing** * Yes it is. !! But we know that when a stubborn, insane physicist realizes that the Higgs-boson exists, "because it is said to be missing" from the standard model, he will find it at any cost, even mathematically and hundreds of billions of money experimentally. And he found only "something" that is said to be crumbling pieces, jets, which testify to the existence of the higgs, and he will find her, even if he has to look for her in Hell.. So what's with that fifth force? The fifth force is a hypothetical, new, fundamental force for which we don't yet have evidence. **And why is he actually looking ???**

(02)- It we found it, it would be the biggest physics news in 100 years.* **But you will also find Beelzebub "when your vanity needs him."** That's why it makes frequently makes headlines. There isn't one particular fifth force, but there's a large number of "fifth" forces that physicists have **invented** * **mathematically you can invent anything, even "strings from Nothing"** and that they're now looking for. We know that if a fifth force exists it's difficult

to observe, because otherwise we'd already have noticed it.* **We would have observed this black matter long ago, but it does not exist. There are observations that are incorrectly evaluated.** This means, this force either only becomes noticeable at very long distances – so you'd see it in cosmology or astrophysics – or it become noticeable at very short distances, and it's **hidden** * (hidden in the hole that leads to Hell) somewhere **in the realm** of particle physics. For example, **the anomaly** * anomaly? what kind What if an explanation is found that no one has yet suggested. What if the anomaly is the result of the rotation of the systems (object and the Observer), the rotation in curved spacetime, and thus the "distortion of dimensions in the local system" ????... in the **muon g-2**, **could be** a sign for a new force carrier, so **it could be** a fifth force. Or maybe not. ☺ There is also a **supposed anomaly** in some nuclear transitions, which **could be** mediated by a new **supposed** particle, called X17,* **Logic: the putative particle fits the putative anomalies, right ??? A first-year student can handle such a proposal...** which would carry a fifth force. **Or** maybe not.☺ Neither of these anomalies are very compelling evidence, the most likely explanation in both cases is some difficult nuclear physics.* **Rather, it is necessary to reconsider the reason why someone invented the fifth force !!** The most plausible case for a fifth force, I think, comes from the observations we usually attribute to dark matter.* **And this is the catch. The fifth force "comes" from a poor evaluation of good observation, which encourages insanity to the existence of dark matter.** Astrophysicists **introduce** **dark matter** because they do see a force * **no, they don't see her... they just misjudge what they see ... they see the devil and evaluate him as an angel.** that's acting on normal matter. The currently most widely accepted hypothesis for this observation is that this force is just gravity, so an old force, **if** you wish, but that instead there is some new type of matter. That doesn't fit very well with all observations, **so it could be** instead that it's actually not just gravity, but indeed a new force, and that **would be** a fifth force. * **And if Beelzebub had horns on his ass, it would be an observed fact for the sixth force...** Dark energy, too, is sometimes attributed to a fifth force. * **Dark energy will be something else. It will be a "boiling vacuum of dimensions", or "foam of curvatures of space-time dimensions", because curvature itself is the PRINCIPLE of realization = the construction of material elements in this Universe. Then the dark energy is the "chaotic state of curvatures of the dimensions of space-time variables" ..., so when expanding - expanding the Universe the energy of the "boiling vacuum" increases, but the density is still the same** But this isn't really necessary to explain observations, at least not at the moment.* **I think it is necessary to explain the observational data ATTENTION to some meaningful fact, but correctly.** **If** we found evidence for such a new force, could we **do** anything with it? Almost certainly not, at least not in the foreseeable future. The reason is, **if** such forces exist, their effects **must be** very very small otherwise we'd have noticed them earlier. So, you most definitely can't use it for Yogic flying, or to pin your enemies to the wall. However, who knows, **if we do find** a new force, maybe one day we'll figure out something to do with it. **It's definitely worth looking for.** * **Definitely worth looking for other hypotheses like my HDV.** So, **if** you read headlines about a fifth force, that just means there's some anomalous observation * **if you read about HDV (not just headlines, statements) it means that there is a logically meaningful new explanation of the origin of matter which can be explained by a new fundamental interaction, most often a new particle.* ? Enough has been invented: wimps, tachyons, gravitons, axions, mention and mentions žádný, none have been found, but efforts have been made. No effort has been made for HDV, not even for **simple reading and reflection on it.** It's a catchy phrase, but really quite vague and not very informative. This video was sponsored by Brilliant which is a website and app that offers interactive courses on a large variety of topics in science, computer science, and mathematics. All their **courses challenge you with questions,** * **I have been asking physicists questions for 20 years and I don't know if anyone reads them at all..., I never got any****

reaction, no counter-opinion (ie from those educated physicists) so you can check your understanding along the way. If you need to freshen up your knowledge about forces, have a look for example at their course on classical mechanics. It covers all the essentials: forces, energy, momentum, pressure, and so on. It will give you a solid basis to understand modern physics. To support this channel and learn more about brilliant go to brilliant dot org slash sabine and sign up for free. The first 200 subscribers using this link will get 20 percent off the annual premium subscription. Thanks for watching, see you next week

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