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

Why Do We Need Quantum Gravity to Explain the Big Bang?

No, we don't need quantum gravity to explain the Big Bang

23 919 zhlédnutí

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(comment in red... unfortunately it will be a lot distorted by the imperfections of the google-translator... I'm sorry. And I'm sorry Even that in 20 years there was no one to help me with the translation)

0:00

(01) What happened at the very moment of the big bang arguably that's the most profound question that scientists have ever asked **if we can understand that very first moment then in principle we can understand everything** * **we can agree with that** that came afterwards the entire evolutionary history of the universe but **to understand this moment requires a completely new way of describing physics** * **HDV is this new description, a new vision of the Big Bang we need a quantum theory of gravity (?) that's** because at the moment of the big bang **everything** in the universe was **crushed** into an infinitesimally tiny point *

What is "all"? No, it's not like that. QTG doesn't explain "why Big-bang" happened, it doesn't explain cause or reason, but maybe, probably, it probably explains the state of the Universe "after the Big Bang." The Big Bang was a "jump" of extreme change, namely the change of the Euclidean flat infinite 3 + 3 dimensional space-time **from** "before the Bang" **to** the "post-big-bang" state of extreme curvature (wrapping) of the 3 + 3 dimensional space-time into a singular locality. I have this detailed explanation on other sites. →

http://www.hypothesis-of-universe.com/docs/aa/aa_178.pdf here page 4

http://www.hypothesis-of-universe.com/docs/aa/aa_174.pdf

http://www.hypothesis-of-universe.com/docs/aa/aa_171.pdf

http://www.hypothesis-of-universe.com/docs/aa/aa_159.pdf here page 6 + page 9 + page 13

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http://www.hypothesis-of-universe.com/docs/aa/aa_144.pdf

http://www.hypothesis-of-universe.com/docs/aa/aa_130.pdf and then there are more and more thoughts on the topic of Big-bang on other websites. QTG therefore begins with the state of "space-time foam", ie the state of "homogeneous chaos of dimensions", when the section of this foam represents the "local quantum" - compacted in the area where there are also "dilutes" as an area of "zeros and ones". I know it could be described better. now under those incredibly extreme conditions the force of gravity **would have become** as strong as all the other forces **no, no..** of nature like the electromagnetic strong and weak nuclear forces *

the reasoning is based on the "curvatures" of the spatiotemporal dimensions. Each state of more curved dimensions carries a different force otherwise "strong"... gravity is an "expanded parabola"... this means we need a new language to describe the physics of that moment now understanding quantum gravity and what happened at that moment is so important that Stephen Hawking **described it as knowing the mind of god** * (God as the change of non-existence into existence... or anything like the origin of existence from non-existence. Example: Man when born at birth man "does not perceive the existence of the world") but there are good reasons for thinking we might never **be able to probe** the very first moments of our universe [Music] **but we will be able to state the idea-hypothesis = the truth "justification and cause" of existence"(!)** there are three reasons why this first moment of the universe might be **inherently unknowable** and the first comes to us from one of the most underrated but important physicists of the 20th century **Kenneth Wilson** what Wilson showed in essence was that as you zoom out from the very very tiny scales smaller than atoms to larger and larger scales what's happening at short distances gets washed out and doesn't affect what's happening at much bigger scales * **there is still a higher dimensional curvature in the microworld than in the expanded macro world...; the microworld is linear and the macroworld is nonlinear.** I mathematically illiterate I can't show it in mathematics how linearity changes into nonlinearity, but Mr. RNDr. V. Ullmann explained it succinctly, in Solomon's way: When you cut a curve, such as a parabola into infinitesimal pieces-lines as short as possible, and then reassemble them, connect them together, you get a straight line. Amazing, isn't it? Is it a feasible scam ??? Yippee. And so it somehow happens in the Universe when the "foam" of chaotic dimensions begins to "expand"... and expand... and expand until you get a "in infinite time" euclidean flat network of 3 + 3 dimensions of space-time (in which the mass in that Big- crash) for example Isaac Newton didn't need to know about the structure of atoms in order to understand the motions of the planets around the sun and this means that what happens at the tiny distances involved at the moment of the big bang are unlikely to leave any measurable effects on the physics of the universe at large * **I say this: what happens after the Big Bang → the state of extremely crooked space-time begins to expand into "large-scale physics" that are not very crooked.** ((After the big bang, space-time not only expands into a global state, but at the same time collapses, in microscales, into "packages" of dimensions, and these are then elementary particles of matter, that part conglomerates into atoms, molecules, etc. and also into "curved fields"... etc. the interpretation is elsewhere.)) which means that in experiments today we're very **unlikely** to get **clues as to what the laws of nature were like at the moment of the big bang** * **I suggested the guidelines: one of the guiding principles is the "law of alternating symmetries with asymmetries", which is necessary for genesis, etc. see explanation elsewhere** the second reason comes when we think about a hypothetical experiment where we might try to **recreate the conditions that existed at the moment of the big bang** * **by eliminating ideas, these conditions could be obtained** to now examine the energies involved in quantum gravity. now to probe the energies involved in quantum gravity with current technology we would need a version of the large hadron collider that was roughly the size of the milky way galaxy * **No, the idea = the wish of physicists is that if they "realize more and more energies into collisions", bigger accelerators will gain "new and new" truths, new knowledge, new particles. No. The idea had already hit the boundaries, it was a higgs-boson... and... and that's it. All new precipitation will be just "synthetic shards".** but for the sake of argument let's imagine that money is no object and we can build our galactic collider we spend thousands of years accelerating particles around them around the circle and then we smash them into each other * **it will be like rummaging in the rubble for a gold rush** now these particles have so much energy that they end up probing the physics of quantum gravity but we kind of already know what will happen we'll end up concentrating so much energy into such a small volume

that will collapse those particles into a **tiny** black hole **super..** now that means that if we want to know what's happening at shorter distances down at the scale of quantum gravity it's hidden behind the event horizon of that black hole which is a boundary from which nothing can escape so we might scratch our heads and go okay well let's build an even bigger collider we'll go to even higher energy but what happens then is you make an even **bigger** black hole **super..** so it seems that the laws of physics are saying that even in principle it's **impossible to probe what happens at the distances where quantum gravity becomes important** the third and final reason is due to a process that cosmologists believed happened at the very first moment of the universe this is cosmic inflation cosmologists believe that in the very very first instance of our universe the universe expanded exponentially * **some longitudinal dimensions expanded and perhaps the time (time dimension) expanded unevenly...** quickly in about a tenth of a billionth of a trillionth of a trillionth of a second the universe swelled * = **he unwrapped his curvature ; expanding the curvatures of dimensions is something other than "stretching = expanding dimensions** http://www.hypothesis-of-universe.com/docs/c/c_232.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_239.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_241.jpg at each point in space (space-time) it can expand in this way ; http://www.hypothesis-of-universe.com/docs/c/c_240.jpg ← even this is a view of the universe expanding each site differently, into a different curvature ... the universe does not expand axially according to Hubble or Guth ...

in size by a factor of a hundred trillion trillion now those numbers are probably more or less meaningless but to help you imagine it if you took a full stop and expanded it by the same amount it would end up about 100 times larger than the milky way galaxy now inflation is needed to understand some of the peculiar properties of our universe for instance if we look that way forever and that way forever we find that those two opposite patches of sky are more or less at the same temperature and density but this is really hard to understand because in the normal big bang theory those two bits of space were never in contact with each other so how'd they end up looking the same well inflation solves this by saying that they were once in the same place and then blown up incredibly quickly spread to opposite sides of the universe *??? it is a dream with no (reasonable) logic.

(02) by inflation but inflation comes with a sting in the tail because of this incredibly rapid expansion **of space any information from what happened before inflation will never reach us** it was carried way way way beyond our **cosmic horizon** which means that ultimately **if** inflation is right the very moment of the big bang will be forever inaccessible * **and if inflation is not right, then .., then the idea of HDV can be researched, ie that the Universe is unfolding** → http://www.hypothesis-of-universe.com/docs/c/c_358.jpg http://www.hypothesis-of-universe.com/docs/c/c_357.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_239.jpg to us but even if we can't probe the very first moments of our universe we might be able to get some information on inflation itself inflation would have caused incredibly violent ripples in the fabric of space and time what we know as gravitational waves and thanks to an experiment called LIGO we now know that gravitational waves really do exist in our universe in principle the gravitational waves produced by inflation should still be echoing around the cosmos today and there are a series of experiments planned in the near future that hopefully will be able to pick up their signature which would give us access to the highest energies and the very earliest moments of our universe imaginable if you'd like to know more about particle physics cosmology and the quest to understand the very first moments of our universe then you could try reading my book ***how to make an apple pie from scratch in search for the recipe for our universe*** now the title is actually inspired by a quote from **Carl Sagan** which is if you wish to make an apple pie from scratch you must first invent the universe **so this isn't a cookery book it is actually about the**

search for the origins of matter *my whole HDV is the search for the origin and "origin" of matter..., unfortunately experts either do not read it or do not have an opinion to refute the hypothesis or you could try watching some of my previous talks at the royal institution which are linked in the description thanks very much

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If anyone has the courage to give an opinion, please come here to j_navratil@volny.cz