https://www.youtube.com/watch?v=v8-ooCxPwlM

What came before the Big Bang? Quantum creation. How to get a Universe from nothing

My polemics and counter-opinions will be in red

(01)- [Music] Ancient Greek cosmologists per minute II said nothing come from them he was likely referring to the law of conservation of energy that no new energy can be created this is true and is a scientific fact even today so how could the universe come from nothing it was argued it had to come from something well since the discovery of quantum physics and relatively we've discovered a flaw in this argument that allows the creation of something and truly nothing how is this possible and what is the exact mechanism that's coming up rightnow we have very good evidence that the universe indeed had a beginning about 13.8 billion years ago with the Big Bang but one of the fundamental questions has been what was there before the Big Bang and how did the universe come about from nothing the flaw that we've uncovered in Parmenides original argument of nothing comes from nothing is that gravity has negative energy and matter has positive energy and in a closed universe a spontaneous splitting of zero energy into an equal amount of positive and negative energy would not violate any conservation laws because no new energy would have been created and in quantum mechanics anything that is not forbidden by conservation laws has a probability of occurring a small probability but nevertheless nonzero in fact that only is the splitting of zero energy into an equal amount of positive and negative energy allowed but it is inevitable in a universe that obeys quantum mechanics in other words a closed universe will spontaneously nucleate according to the laws of quantum mechanics so that is how our universe could come from a vacuum but then you might say you didn't start with nothing you started with something you started with the vacuum of physics this is true a vacuum in physics has virtual particles that come in and out of existence over a very short period of time a vacuum has weight and it has energy and pressure and it can be scientifically measured so this is not nothing so a more fundamental question is can a universe really be created with truly nothing that means no thing no space no matter no time no nothing to answer this question let's work our way back from where we are now we know that we live in an expanding universe if you solve in Stein's equations for a universe like ours you discover that it describes a universe that is either contracting or expanding at the beginning of the Big Bang it has a finite size below which you cannot go any smaller how does an explosion like the Big Bang occur from this finite sized universe in late 1979 a Stanford physicists postdoc named Alan Guth offered an explanation for this bang or this explosion he showed that using the theories in particle physics at extremely high energies much higher than we could ever create in a lab a special state of matter turns gravity upside down causing it to be repulsive rather than an attractive force a patch of space that contains even a tiny bit of this unusual matter much smaller than even the size of an atom could repel itself so violently that it would blow up and expand into a huge size this would have happened for a very short time a tiny fraction of a second because this repulsive force quickly decays into an attractive force of gravity that we see today but this short period of time is enough to cause the bang the Big Bang so now we're at the Big Bang we have a finite sized universe with extremely high energy density that exploded in a brief inflationary period and caused the Big Bang now let's go back further the question now is how

did a zero sized universe and nothing become Booth's finite size universe physicist Alexander Vilenkin of Tufts University published a paper in 1984 that showed how this was possible using currently known laws of quantum mechanics and he originated the idea of something called quantum creation he showed that there is some energy barrier that the zero sized universe had to overcome in order to become finite size this is where a phenomenon called quantum tunneling comes into play it turns out that there is a probability not very but a nonzero probability that a zero sized universe can tunnel through an energy barrier and become a finite sized universe quantum tunneling is a real phenomena that can be measured and is known to exist it is not made-up quantum mechanic shows that particles are waves of probabilities and these waves have a nonzero probability of showing up spontaneously outside a barrier this is how for example an electron or even an atom behind a barrier has a small probability of showing up on the other side of the barrier are zero sized universe 10 through the process of quantum tunneling become a finite size universe and once it does that then boots cosmic inflation occurs triggering the Big Bang an Einstein's laws take over

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(01)- The ancient Greek cosmologists in minute II said that nothing came from them, probably referring to the law of conservation of energy that no new energy can be created, this is true and is a scientific fact even today, so how could the universe have come from nothing ?, which it was argued must have come from something good since the discovery of quantum physics and relatively we discovered a flaw in this argument that allows something to be created and actually nothing, how is this possible and what is the exact mechanism, which appears. That mechanism is the ignored "Truth of the Universe" that the Universe produces matter by "curving dimensions". That's it the mechanism.! Not the Higgs mechanism. The universe is not born from Nothing, but (our universe) is realized in the big-bang as a ""change of state"" from the previous one to the next one. →
http://www.hypothesis-of-universe.com/docs/eng/eng_101.pdf
http://www.hypothesis-of-universe.com/docs/eng/eng_098.pdf
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http://www.hypothesis-of-universe.com/docs/eng/eng_059.pdf

Right now we have very good evidence that the universe did indeed begin …did not begin but began to unfold … did not begin but began to unfold …did not begin but began to unfold time,.. both the time and length dimensions of the 3+3D system began to "unfold" about 13.8 billion years ago the Big Bang, but one of the fundamental questions was what was before the Big Bang and how the universe came from nothing. And that's it. Until physicists understand HDV, i.e. the meaning of dimension warping, i.e. realization - building matter by "packaging" space-time dimensions, http://www.hypothesis-of-universe.com/index.php?nav=e , they will fumble until then , make up phantasmagorisms about multiverses, wormholes, tachyons, time travel, axions, supersymmetries, inflationary explosions, negative energy, accelerated

expansion, and similar nonsense,.. they will grope and call me a phantasmagorist for my HDV. We revealed in Parmenides the original argument that nothing comes from nothing, that gravity has negative energy and matter has positive energy, and that in a closed universe there is spontaneous splitting of zero energy into equal amounts of positive and negative energy blah-blah …would not violate any conservation laws because it would no new energy was created, and in quantum mechanics everything that is not forbidden by the laws of conservation has a probability of occurrence But where is the list of forbidden things by the "law of conservation"?, i.e. the law of conservation does not prohibit the screwing-violating the law of conservation ??? I have another more elegant idea: the principle of alternating symmetries with asymmetries, http://www.hypothesis-of-universe.com/docs/eng/eng_008.jpg ; http://www.hypothesis-of-universe.com/docs/g/g_031.pdf ; http://www.hypothesis-of-universe.com/docs/g/g_073.pdf small but actually non-zero that only the splitting of zero energy into equal amounts of positive and negative energy is allowed, but it is inevitable in a universe governed by quantum mechanics, in other words a closed universe will spontaneously nucleate according to the laws of quantum mechanics, so this is how the universe can come from a vacuum, a boiling vacuum, i.e. as a """"trembling-thumping +packing""" of dimensions, transformations of curvature... and what is the entropy of the "foaming" vacuum? maximum ? well, it's the most disordered system and... and yet energy "foams" here..., so ??? but then you could say you didn't start with nothing, you started with something you started with the vacuum of physics, that's right, the vacuum in physics has virtual particles, the spin of particles and the spin of antiparticles is opposite, right? Packing the time dimension into a "ball" (with other dimensions) means that the flow-flow of time inside the package "goes" for a small moment, for a small interval, "backward", against the global flow-direction of time flow... which come and go in a very short period of time a vacuum has weight and energy and pressure and can be scientifically measured so it's nothing, but the rather f irrelevant question is whether the universe can really be created out of really nothing, which means no thing, no space, no time, no time, nothing to answer this question, The question is why physicists haven't noticed my HDV (?) yet, and if they have, why they refuse to discuss it widely whether such a possibility is rational, i.e. that the "post-Bang" Universe would arise not from Nothing, but by a jump change from a flat 3+3D state (before the Bang) to an ultra-curved state of n+m dimensions after the Bang to the form of a "foam" of dimensions to a "boiling" state space-time" in which matter will be "born" by "packaging dimensions"... Why not ??? let's go back from where we are now, we know that we live in an expanding universe, or an unvarping universe http://www.hypothesis-of-universe.com/docs/c/c_239.jpg Hubble's expanding is linear, my unwrapping is non-linear if you solve in Stein's equations for a universe like ours, you will find that it describes a universe that either contracts or expands at the beginning of the Big Bang, has a finite size, every location has a finite size (((location of extremely crooked state of dimensions , *space-time* foam))) in infinitely flat space-time…, and in it also takes place the expansion - the unfolding of 3+3 dimensions. // we repeat the question "how big is a unit, a unit interval in infinite space-time?" //. And there is also another "packing" into packages that "interact" with each other into more complex packed forms...etc. http://www.hypothesis-of-universe.com/docs/eng/eng_101.pdf below which it can no longer be reduced as an explosion such as the Big Bang occurs this universe of finite size. In late 1979, a Stanford physicist postdoc named **Alan Guth** offered an explanation of this bang I also offered HDV or this explosion and showed I also showed in HDV that by using theories in particle physics at at extremely high energies far higher than we could ever create in a laboratory, a special state was created: matter turns gravity upside down, causing it to be a repulsive force rather than an attractive force, a piece of space that contains even a tiny bit of this unusual matter much smaller than even the size of an atom could repel each other so violently that they

would explode and expand ((example of unfolding http://www.hypothesis-of-universe.com/docs/c/c_241.jpg here it was from one point, but the universe is not unfolding from one point, but from all points and into different curvatures)) ((This is also an unboxing of dimensional curvatures http://www.hypothesis-of-universe.com/docs/c/c_240.jpg)) to a huge size, which would happen for a very short time, for a fraction of a second, inflation to a ratio of $10^{40}/10^{0}$?? or in the ratio $10^{8}/10^{0}$??, which is the ratio for the speed of light in our "Earth location" ..?, because this repulsive force quickly decays into an attractive gravitational force. we see today, but this short period of time is enough to cause the Big Bang, so now we are at the Big Bang. (For me, the Big Bang is a ""jump change of state"", of the previous state to the subsequent state; of the previous absolutely flat 3+3D to the state of "many" curved dimensions 3+3) and we have a universe of finite size locality of extremely curved dimensions of space-time with extremely high energy density, "dense energy" will be nothing else - wonder the world - than "**vacuum foam**", which is a state of crooked dimensions ...; and such a state is still in the universe today and is "called" **dark energy**, which exploded in a short inflationary period and caused the Big Bang. Now going back further, the question now is how the universe of zero size came to be from nothing. **Booth's finite**-size universe physicist **Alexander Vilenkin** of Tufts University published a paper in 1984 that showed (I also showed, his physicists read, they don't read me) how this is possible using currently known quantum laws http://www.hypothesis-of-universe.com/docs/eng/eng_103.pdf mechanics and created the idea of something called quantum creation, he showed that there was some energy barrier that a **zero-sized** universe had to overcome to become a finite **non-zero** size. I would choose the opposite logic: in the pre-big-bang in an infinite 3+3 flat = non-curved space-time, a finite = unit (unit) locality is "born, separated". We will never know how big the unit is...so I don't have to think about any "barrier" Vilenkinen. A phenomenon called quantum tunneling comes into play, where did it come from? it turns out that there is a not-too-high, but non-zero probability that a universe of zero size can tunnel through the energy barrier and become a universe of finite size, [my "unit location " - of extremely crooked dimensions - in an infinitely flat 3+3 spacetime is more elegant than fictions with tunneling and non-zero probabilities and barriers to "overcome", etc.] quantum tunneling is a real phenomenon that can be measured and is, known to exist, (it is known) not made up, quantum mechanics shows that particles are waves of probability, waves are, but "probability waves" ??? That some kind of abstract probability would wave??.. "The real-artifact waves", the "thought" does not wave...and these waves have a non-zero probability of spontaneously appearing outside the barrier, and the barrier is "what" is it God, or the law, or the line that separates Hell and the World? like this, for example, an electron or even an atom has a barrier of course, when the World is in full swing, then there are "quantum-mechanical barriers" on the scene, but to explain the Bang and by inflation the "barriers" have no justification (barriers did not exist before the Big Bang) a small probability of appearing on the other side of the barrier, a universe of zero size 10 will become a universe of finite size through the process of quantum tunneling and once this happens, cosmic inflation will be triggered and the Big Bang goes off and Einstein's laws take over That's fairy tale A…I have fairy tale B.

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[Music]

(02)- and the universes expanding journey begins and 13.8 billion years later we observed the universe as we do today so quantum mechanics gets you from zero size to finite size and then to the Big Bang and then general relativity can get you from there to where we are today and what triggered all this well in quantum physics events do not necessarily have a cause just some probability so there is some probability for the universe to pop out of nothing the Linkens theory is not proven but if it is true our existence had the humblest beginning of all from nothingness itself you might say well even if we bind all that you're still not starting

with nothing because you have to start with the laws of quantum mechanics this is not nothing this is definitely something where did these laws come from why do we have these laws if they exist independent of space and time so far nobody has answers to this question so this may be the ultimate question for Humanity could it be that these laws exist regardless of whether the universe exists maybe like two plus two is four will exist regardless of whether any humans are around or whether any universe is around what do you think you have a theory that you like to express I'd love to hear about any ideas you might have especially if they sound crazy I'll see you in the comments below
6:46
[Music]
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(02)- and begins the path of expansion according to what command?, what rule of the Universe?, or the motion of the Universe??? I have an unrolling of dimensions that were extremely crooked after the Big Bang, which has its own logic for "unrolling", but your "expanding-expanding" has what logic? universes and 13.8 billion years later we observed the universe as it is today, so quantum mechanics it gets you from zero size to finite size and then to the big bang and then general relativity can get you from there to where we are today and what started it all in quantum physics, events don't necessarily have a cause, they don't have to, but they can…, e.g. here is ***the Principle of alternating symmetries with asymmetries,*** without which the genesis of "anything" would not run... just some probability, so there is some probability that the universe jumped out of thin air, dtto there is some probability that "our three-dimensional universe" jumped by a leap change from the "previous two-dimensional" state of the universe into a boiling vacuum. Linkens theory is not proven, but ****if**** it is true, our existence had the humblest beginning of all from nothingness itself, ****if**** HDV is proven to be the correct logic, it would be the most elegant explanation of the origin of matter (!) **not "from Nothing"**, but from the most real ingredient available to the World ◊ 3+3D space-time. .. you could say O.K. even if we put it all together you're still starting with nothing because you must start with the laws of quantum mechanics that's nothing this is definitely something where these laws came why do we have these laws , **if they exist independently of space and time**, *yes, I am convinced that laws + rules + principles also arise, and are gradually born. At the time of the Big Bang, laws did not exist. They were recruited simultaneously with the formation of elementary particles and their mutual interactions (chemically → acid + base = salt). So far *no one* has answered this question, I have, I have many years ago. (!) I can look it up, I have evidence for it in the archive. E.g. i have this handy http://www.hypothesis-of-universe.com/docs/g/g_080.pdf so this may be the ultimate question for humanity, could it be that these laws exist st regardless does the universe exist, maybe like two plus two is four it will exist regardless of whether there are any people around or whether there is any universe around it, Mathematics may exist "without the Universe", but physics cannot. Physics needs matter. And it arises after the Bang along with the laws. There are two developmental sequences of **a)** the emergence of complex material structures up to DNA and **b)** the laws + rules that accompany them. After the big bang there were only a few laws, more and more were gradually born, until today we have thousands of them (I include chemistry, biology) what do you think you have a theory you would like to express. **I would like to hear about some ideas you might have**,, unfortunately, for certain reasons, the new HDV idea will never reach your eyes...and...and when it does, you won't feel like reading it and...and even if you do feel like it, you won't understand it... especially if it sounds crazy, see you in the comments below 6:46 [Music]

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