Penrose přinesl cyklické Vesmíry. Já ho vylepšil.

Penrose brought cyclic Universes. I improved it.

My opinion in red →

George Revell

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The reason the universe can't have existed forever: Entropy

There is a growing interest in physics that we may come to discover that our universe will eventually stop expanding and ultimately collapse, at which point another will begin and that this cycle has been going on forever. But the total entropy of the universe is always increasing due to the second law of thermodynamics. This basically means that the universe tends away from order and always toward a more equilibrium state as time goes on. So if the universe were part of an eternal cycle of universes, starting with big bangs and ending with big crunches which then expand as the next universe's big bang, then wouldn't we inherit entropy from the previous universe? But if the previous universe had lower entropy, and the universe before it had even lower entropy, this entropy can only go down to a minimum value which represents the most ordered state of the universe at its initial size. So there would have to be a first universe that started with its minimum possible entropy, and no universe could have come before it as an even earlier universe would have had to finish with the minimum possible entropy state.

The only way to escape this limit on the past timeline of the universe, is the possibility that entropy at some point in the collapsing universe heading towards a big crunch, begins to decrease instead of increase with the forward motion of time. After all, surely the second law of thermodynamics assumes a constant or expanding universe, and therefore may not apply to a contracting universe?

An etenral cyclic universe is however too good an idea to give up on, as it answers the explains how every universe was created with the collapse of its predecessor. The possibilty for an eternal cyclic universe therefore, is dependent of entropy decreasing during collapse. →

← George Revell sdnSprteoo354fcig82mg00fua210lica980h65aih51012h a891cgu9i56 · Reason why the universe could not exist forever = entropy:

||Entropy||. There is growing interest in physics until perhaps we discover that our universe will eventually stop expanding and eventually collapse, at which point another what next?, will begin, and that this cycle has been going on forever. But the total entropy of the universe always increases due to the second law of thermodynamics. This basically means that the universe deviates from order over time and is always moving towards a more balanced state. So if the universe was part of an eternal cycle of universes, starting with a big bang and ending with a big crunch that then expands as the next universe's big bang, wouldn't we inherit entropy from the previous universe? But if he had a previous universe, …However, it is not yet resolved whether the Universes in the sequence are new and different, different from each other, or not, that is important. My idea is that the cycles really do go on, (and did

go on), but only still oneness and the same Universe. Before the big-bang, space-time was two-dimensional and 3+3 dimensional, (there was no matter in it), it was flat, infinite, time did not run in it, it did not expand !!, suddenly there was a change (in the same Universe) – Big-bang, in that in the sense that there was a sudden jump change in the curvature of 3+3 dimensions of the previous state of flat non-curved dimensions and they "warped", so the opposite extreme occurred: extremely crooked dimensions - a new state of 3+3D space-time, boiling space-time, foam of dimensions - plasma. In this plasma, matter is born (by packing dimensions into balls = elementary particles), i.e. matter is born, the genesis of changes, interactions occurs, the flow-flow of time starts, (time dimensions are unpacked, three http://www.hypothesis-of-universe.com/docs/aa/aa_312.pdf …therefore time "flows" in one direction on global scales and flows in both directions on Planck scales in the foam of dimensions, interactions are linear), spatial dimensions expand, (not the Universe expands from some kind of singularities http://www.hypothesis-of-universe.com/docs/c/c_032.gif , but it unfolds ||**||), stars, galaxies are born ; further, laws, rules and principles "emerge". All this in one and the same Universe, not some multiverse. The universe ages – the post-big-bang dimensions expand until the curvatures in the "big-crash" return to a flat state. Big-bang No. 2 will then occur...and cyclically like this all the way round. ||**|| Now vision no. 2 http://www.hypothesis-of-universe.com/docs/aa/aa_246.pdf ; http://www.hypothesis-of-universe.com/docs/aa/aa_302.pdf here I explain that on the micro-level of space-time, space-time is foamy and interactions, as Kulhánek says, do not even need that time, in the chaos of dimensions, the arrow of time alternates)), lower entropy, and the universe before it had an even lower entropy, this entropy can only drop to the minimum value that represents the most ordered state of the universe at its initial size. The most ordered is the space-time with all flat 3+3 dimensions, the most chaotic (the Universe, i.e. space-time is that which is in the state of a soup of curved dimensions, i.e. elementary particles "floating" in slightly curved states of space-time (4 basic forces) etc. There would have to therefore a first universe, no, it didn't have to…, which would start with the minimum possible entropy, and no universe could come before it, because an even earlier universe would end with the minimum possible state of entropy. No… The only way to escape this limit on the universe's past timeline is for the entropy at some point in a collapsing universe headed for a major crisis to start decreasing instead of increasing as time moves forward. After all, surely the second law of thermodynamics assumes a constant or expanding universe and therefore may not apply to a contracting universe? However, an eternal cyclical universe is too good an idea to pass up because it answers the explanation of how each universe was created by the collapse of its predecessor. My vision is even a little better... whether it is, will be revealed someday. Thus, the possibility of an eternal cyclic universe is dependent on decreasing entropy during the collapse.

JN, 30/12/2023