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## Neil Turok: Physics is in Crisis

### Fyzika v krizi ( můj komentář níže )



#### Dr Brian Keating

120 tis. odběratelů

273 494 zhlédnutí Premiéra: 2. 10. 2022 [Brian Keating's Into The Impossible Podcast](#)

#physics #cosmology #stephenhawking Renowned physicist Neil Turok, Holder of the Higgs Chair of Theoretical Physics at the University of Edinburgh, joins me to discuss the state of science and the universe. Is Physics in trouble? What hope is there to return to more productive and simple theories? What is Peter Higgs up to? Neil Turok has been director emeritus of the Perimeter Institute for Theoretical Physics since 2019. He specializes in mathematical physics and early-universe physics, including the cosmological constant and a cyclic model for the universe. He has written several books including Endless Universe: Beyond the Big Bang and The Universe Within: From Quantum to Cosmos. [00:00:00](#) Intro  
[00:03:28](#) What is the meaning of Neil's book cover? [00:06:46](#) The Nature of the Endless Universe [00:14:31](#) What would happen to James Clerk Maxwell and Michael Faraday on Twitter? [00:16:10](#) What's wrong with physics today? [00:20:06](#) How did Neil's life change after his theory was proven wrong? [00:23:28](#) Neil shows us fundamental laws of the Universe in equations. [00:33:59](#) How well do our modern equations satisfy the conditions of the observable Universe? [00:56:29](#) How is the Universe simple? [01:20:01](#) Can Neil's model explain flatness without inflation? [01:54:54](#) Existential Questions on the meaning of life, advice to his former self, and things he's changed his mind on. Join this channel to get access to perks:  [/ @drbriankeating](#)  [Watch my most popular videos:](#)  [A New Contender is Here!](#)  [• A New Contender I...](#) Frank Wilczek  [• Nobel Prizewinner...](#) Eric Weinstein vs. Stephen Wolfram  [• Stephen Wolfram v...](#) Sheldon Glashow:  [• Sheldon Glashow: ...](#) Neil deGrasse Tyson  [• Neil deGrasse Tys...](#) Michio Kaku:  [• Michio Kaku: Stri...](#) Sir Roger Penrose:  [• Nobel Prize in Ph...](#) Jill Tarter  [• Jill Tarter: Time...](#) Noam Chomsky:  [• Noam Chomsky: Con...](#) Sabine Hossenfelder:  [• “I Don’t Care Abo...](#) Avi Loeb:  [• UFOs & UAPs: The ...](#) Jim Simons:  [• Jim Simons: Life ...](#) Follow me to ask questions of my guests:  [♂](#) [Twitter: https://twitter.com/DrBrianKeating](#)  [Subscribe](#)  
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[http://briankeating.com/mailing\\_list.php](http://briankeating.com/mailing_list.php)  [Detailed Blog posts here:](#)  
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**Abstract by N. Turok:** Observations of the universe have revealed a surprising economy in its basic laws and structure. In this light, we have tried to find new, simpler solutions to cosmology's central puzzle. Instead of postulating a period before a hot big bang like inflation or a bounce universe, each of which brings with it a large degree of arbitrariness, we extrapolate the observed extremely simple universe up to the initial singularity.

### My opposition abstract:

**Chapter ad01)** Unfortunately, according to Hubble's linear law  $\mathbf{v} = \mathbf{H}_0 \cdot \mathbf{d}$  which is wrong, i.e. reality is different  $\diamond$  the universe (space-time) expands, not expands. And that means that the extrapolation doesn't lead to just one singularity, but space-time expands from the "big-bang" all around us from every conceivable point of the "boiling vacuum" on Planck scales, everywhere. Space-time expands "out of nothingness" [http://www.hypothesis-of-universe.com/docs/c/c\\_032.gif](http://www.hypothesis-of-universe.com/docs/c/c_032.gif) It expands in both length dimensions and time dimensions, that is, from the "initial initiation of the flow of time". And not only that: space-time also warps and collapses from the start of the flow, i.e. the passage of time and from the unfolding of space. On the platform of the Planck scales, the microworld is packed into "prescribed" topological formations = a package of 3+3 dimensions, which in dynamic reality are elementary particles and physical fields. In the microworld, "dimensional packing is rampant," and in the macroworld of galaxies and galaxy clusters, unpacking is "rampant and rampant." This unboxing is not "one size fits all". Each locality of the macrocosm in the galactic environment unfolds differently (at a different pace of the passage of time and a different "prescription" that forms the shape of a galaxy, even a cluster of galaxies. The macrocosm behaves non-linearly, according to OTR, the microcosm behaves (in the boiling chaos of dimensional warping) linearly, QM . Interactions of matter (made from packages of dimensions) are always placed in symmetry, i.e. in linearity. [http://www.hypothesis-of-universe.com/docs/c/c\\_043.jpg](http://www.hypothesis-of-universe.com/docs/c/c_043.jpg) ;

[http://www.hypothesis-of-universe.com/docs/eb/eb\\_004.pdf](http://www.hypothesis-of-universe.com/docs/eb/eb_004.pdf) ;

<http://www.hypothesis-of-universe.com/index.php?nav=eb> . Linearity is not preserved forever, but is constantly transformed according to the rule - the principle of alternating symmetries with asymmetries. This guarantees the genesis, the development of more complex and complex matter structures. The more complex the matter in the universe is, (on Earth even proteins, DNA), the less and less and less there is...  $\mathbf{x} \cdot \mathbf{y} = \mathbf{const}$

[http://www.hypothesis-of-universe.com/docs/c/c\\_028.jpg](http://www.hypothesis-of-universe.com/docs/c/c_028.jpg) ; pyramid genesis  $\diamond$

[http://www.hypothesis-of-universe.com/docs/g/g\\_041.pdf](http://www.hypothesis-of-universe.com/docs/g/g_041.pdf) ;

[http://www.hypothesis-of-universe.com/docs/eng/eng\\_009.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_009.pdf) . That is why we are alone in the universe. ( or I am somewhere "in the middle" in evolution (in the middle of the equation  $\mathbf{x} \cdot \mathbf{y} = \mathbf{1}$  and there are "infinitely many civilizations" in the universe).

<http://www.hypothesis-of-universe.com/en/index.php?nav=home>

### Chapter ad2) Random samples from HDV

[http://www.hypothesis-of-universe.com/docs/eng/eng\\_107.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_107.pdf) [http://www.hypothesis-of-universe.com/docs/eng/eng\\_109.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_109.pdf) [http://www.hypothesis-of-universe.com/docs/eng/eng\\_117.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_117.pdf) [http://www.hypothesis-of-universe.com/docs/eng/eng\\_118.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_118.pdf) <http://www.hypothesis-of->

[universe.com/docs/eng/eng\\_122.pdf](http://universe.com/docs/eng/eng_122.pdf) The opinion against the creation of matter "from nothing" and against the three-dimensional universe, I will present in HDV  
[http://www.hypothesis-of-universe.com/docs/eng/eng\\_096.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_096.pdf) , <http://www.hypothesis-of-universe.com/en/index.php?nav=home> in another passage "On the Creation of the Universe" .

← Engl

→ CZ

**Abstrakt N. Turoka:** Pozorování vesmíru odhalila překvapivou ekonomiku v jeho základních zákonitostech a strukturou. V tomto světle jsme se pokusili najít nová, jednodušší řešení kosmologie centrální hádanky. Místo postulování období před horkým velkým třeskem, jako je inflace nebo vesmír bounce, (velký krach) z nichž každý s sebou přináší velkou míru libovůle, extrapolujeme pozorovaný extrémně jednoduchý vesmír až do počáteční singularity.

**Můj abstrakt opozice:**

### **Kapitola ad01)**

Bohužel podle Hubbleho lineárního zákona  $v = H_0 \cdot d$  který je špatně, tedy realita je jiná □ vesmír (časoprostor) se rozbaluje, nikoliv rozpíná. A to znamená, že extrapolace nevede jen do jedné singularity, ale časoprostor se rozbaluje od „big-bangu“ všude kolem nás z každého myslitelného bodu „vřícího vakua“ na planckovských škálách, všude. Časoprostor se rozbaluje „z nicoty“ [http://www.hypothesis-of-universe.com/docs/c/c\\_032.gif](http://www.hypothesis-of-universe.com/docs/c/c_032.gif) Rozbaluje se i v délkových dimenzích i v časových dimenzích, tedy od „počátečního spuštění toku plynutí času“. A dokonce nejen to : časoprostor se od spuštění toku, tj. plynutí času a od rozbalování prostoru, se také i křiví-sbaluje. Na platformě plankovských škál mikrosvěta se sbaluje do „předepsaných“ topologických útvarů = balíčku z 3+3 dimenzí kterými pak v dynamickém reálu jsou elementární částice a fyzikální pole. V mikrosvětě „bují, hýří sbalování dimenzí“ a v makrosvětě galaxií a clastrů galaxií „bují a hýří“ rozbalování. Toto rozbalování není „pro všechno stejně“. Každá lokalita makrovesmíru v galaktickém prostředí se rozbaluje jinak (jiným tempem plynutí času a jiným „předpisem“ co utvoří podobu galaxie, i klastru galaxií. Makrovesmír se chová nelineárně, dle OTR, mikrosvět se chová (v tom vřícím chaosu křivení dimenzí) lineárně, QM. Interakce hmoty (vyrobené z balíčků dimenzí) se postaví vždy do symetrie, tedy do linearity. [http://www.hypothesis-of-universe.com/docs/c/c\\_043.jpg](http://www.hypothesis-of-universe.com/docs/c/c_043.jpg) ; [http://www.hypothesis-of-universe.com/docs/eb/eb\\_004.pdf](http://www.hypothesis-of-universe.com/docs/eb/eb_004.pdf) ; <http://www.hypothesis-of-universe.com/index.php?nav=eb> . Linearita není konzervována navěky, ale se stále proměňuje dle pravidla – principu střídání symetrií s asymetriemi. To zaručuje genezi, vývoje složitějších a složitějších hmotových struktur. Čím více je hmota ve vesmíru složitá, ( na Zemi až bílkoviny, DNA), tím je jí méně a méně a méně...  $x \cdot y = \text{const}$  [http://www.hypothesis-of-universe.com/docs/c/c\\_028.jpg](http://www.hypothesis-of-universe.com/docs/c/c_028.jpg) ; pyramidální geneze → [http://www.hypothesis-of-universe.com/docs/g/g\\_041.pdf](http://www.hypothesis-of-universe.com/docs/g/g_041.pdf) ; [http://www.hypothesis-of-universe.com/docs/eng/eng\\_009.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_009.pdf) . Proto jsme ve vesmíru sami. ( anebo jsem v evoluci někde „uprostřed“ (uprostřed rovnice  $x \cdot y = 1$  a je ve vesmíru „nekonečně mnoho civilizací“ ). <http://www.hypothesis-of-universe.com/en/index.php?nav=home> ;

### **Kapitola ad2) Namátkové ukázky z HDV**

[http://www.hypothesis-of-universe.com/docs/eng/eng\\_107.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_107.pdf)

[http://www.hypothesis-of-universe.com/docs/eng/eng\\_109.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_109.pdf)

[http://www.hypothesis-of-universe.com/docs/eng/eng\\_117.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_117.pdf)

[http://www.hypothesis-of-universe.com/docs/eng/eng\\_118.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_118.pdf)

[http://www.hypothesis-of-universe.com/docs/eng/eng\\_122.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_122.pdf)

Názor proti vzniku hmoty „z ničeho“ a proti tříveličinovému vesmíru, předvedu v HDV

[http://www.hypothesis-of-universe.com/docs/eng/eng\\_096.pdf](http://www.hypothesis-of-universe.com/docs/eng/eng_096.pdf) , <http://www.hypothesis-of-universe.com/en/index.php?nav=home> v jiné pasáži „O vzniku vesmíru“ .

JN, 22.06.2023