

https://www.youtube.com/watch?v=RcYIgWX_CII

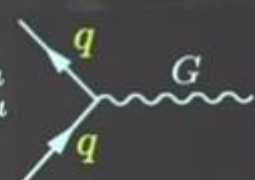
Lecture by doc. Michal Malinský: on the fate of matter (Fridays 20.5.2022)

10,675 views 24/05/2022 https://www.youtube.com/watch?v=RcYIgWX_CII (My main comment is from p. 7, fig. no. 48 onwards)


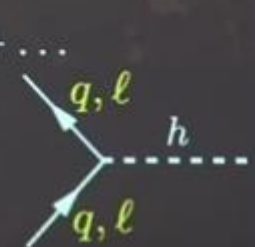
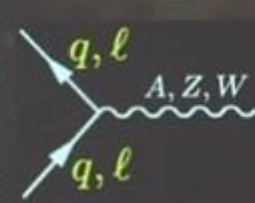
picture. 35

Standardní model (2022)

QCD:

$$\mathcal{L} = -\frac{1}{4} F_{\mu\nu}^a F^{\mu\nu a} - g_s \bar{q} \gamma^\mu \lambda^a q G_\mu^a$$


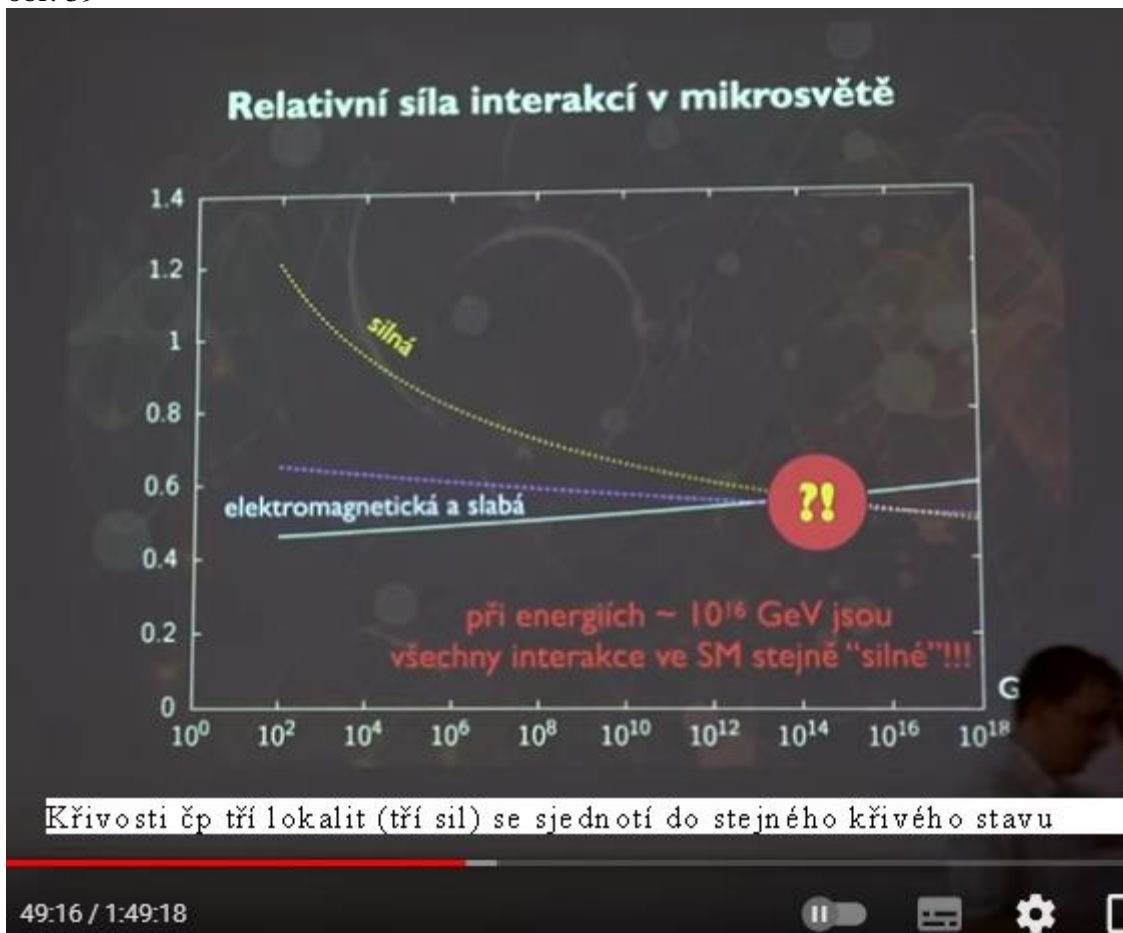
Elektroslabá interakce:

$$\mathcal{L} = -\frac{1}{4} A_{\mu\nu} A^{\mu\nu} + e_A(g, g') \bar{\ell} \gamma^\mu \ell A_\mu$$
$$-\frac{1}{4} Z_{\mu\nu} Z^{\mu\nu} + e_Z(g, g') \bar{\ell} \gamma^\mu \ell Z_\mu$$
$$-\frac{1}{2} W_{\mu\nu} W^{\mu\nu} + \frac{g}{\sqrt{2}} \bar{\ell} \gamma^\mu \nu W_\mu^- + \dots$$


39:35 / 1:49:18

Malinský says: the binding constants "g" are **not constants, but parameters** that depend on the situation, i.e. on the stop-state of the curvature of space-time in some location. Malinský is talking about The "Grand Unification" of the three interactions. I comment: yes, it is possible and it is also in the spirit of my vision of the curvature of all six 3+3 dimensions of space-time, which "meet" in some "common" curvature under a "common" parameter ...; it seems to me as if this "three-interactional unification" of the already precise parametrized curvature arose from the "chaotic state of curvatures" = foam of dimensions that just preceded....; somehow it revolves around the quark-gluon plasma. Of course, I'm groping, I don't know, but I feel that the chaotic foam of crooked dimensions is gradually "parameterized" into the "universe-chosen" topological-geometrical "frozen" implementation of 3+3 dimensions. Erm, I'm groping, and I'm prompting, prompting smart minds to think about this vision. But not a single Czech physicist comments on my HDV, I don't know the explanation "why".

obr. 39



In essence, "high energies" are apparently a certain higher distortion of the 3+3 dimensions of space-time. Malinski's vision and mine should intersect at that point ("?!")..., his talk that the interactions are equally "strong" should "match" my vision of the "3+3 dimensional distortion" from a different angle of view.

obr. 41

Velké sjednocení interakcí (?)

Hypotéza:
Existují mnohem jednodušší základní "částice"

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e

„Velké sjednocení“ říká Malinský - Křivosti všech šesti 3+3D dimenzí (tři sil s menšími křivostmi než je třiosá pěna) se sjednotí do stejného křivého stavu

50:01 / 1:49:18

The grand unification will certainly not fundamentally contradict my ideas about the "warping of dimensions" of space-time, which are the essence of the "unification of interactions", since matter is also built from those dimensions. **"Boiling vacuum" ~ "foam of dimensions" ~ "quark-gluon plasma"**, http://www.hypothesis-of-universe.com/docs/c/c_034.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_029.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_036.jpg these are states of high curvatures and can be considered mathematically as linear states...also in the spirit of my other vision of alternating symmetries with asymmetries [http:// www.hypothesis-of-universe.com/docs/h/h_082.jpg](http://www.hypothesis-of-universe.com/docs/h/h_082.jpg)

Velké sjednocení interakcí (?)

Hypotéza:

Existují mnohem jednodušší základní "částice"

Existuje jediná fundamentální síla (kromě gravitace)



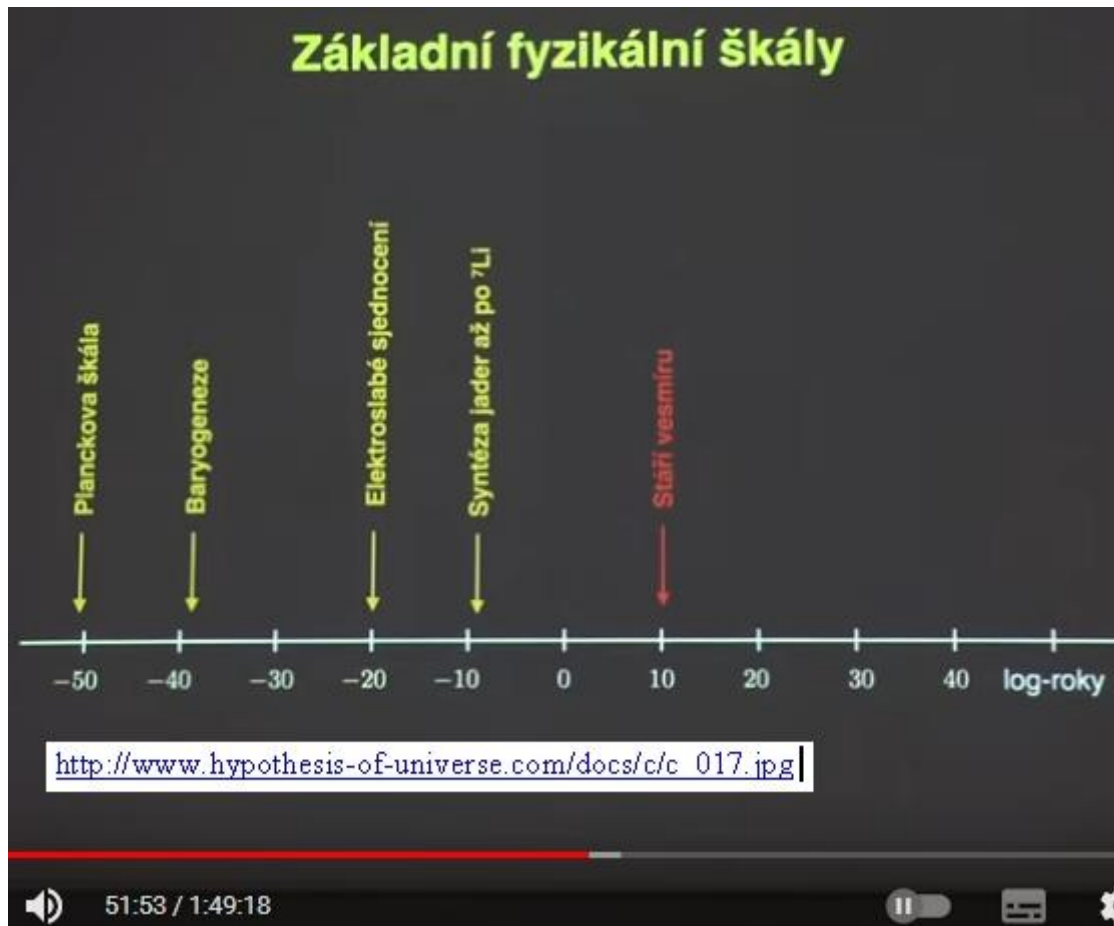
pěna 3+3 D nějak podobná
kvark-gluonové plazmě



50:51 / 1:49:18



Gravity is no longer linear, it is a less curved space-time than "dimension foam". The curvature is (apparently) a "parabola". How the "boiling foam" - linear to non-linear parabola - gravitation goes, mathematicians have to solve that, I can't.

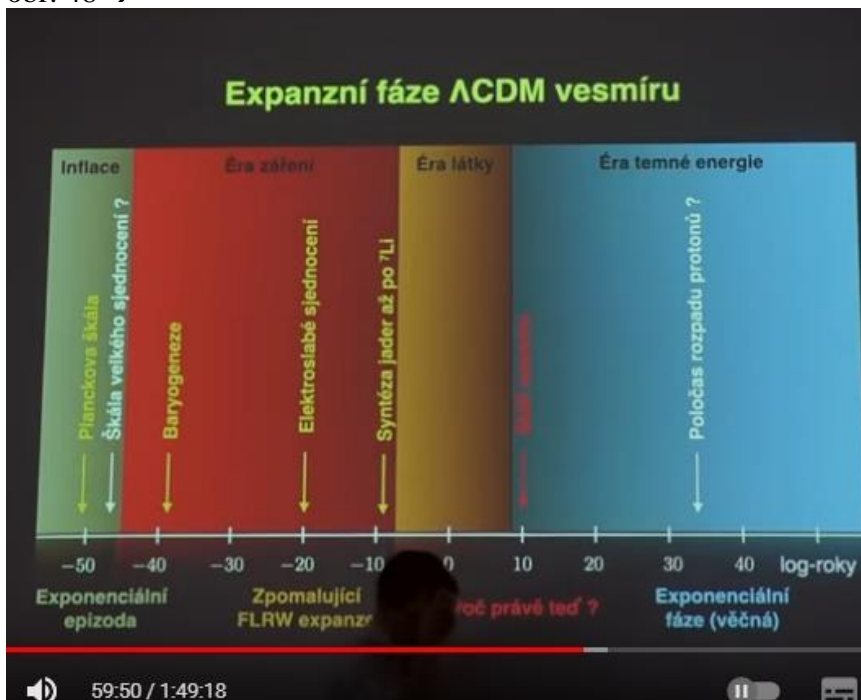


My time and distance scales http://www.hypothesis-of-universe.com/docs/c/c_017.jpg are interesting in that the Earth is almost in the middle of the scale

obr. 45 →



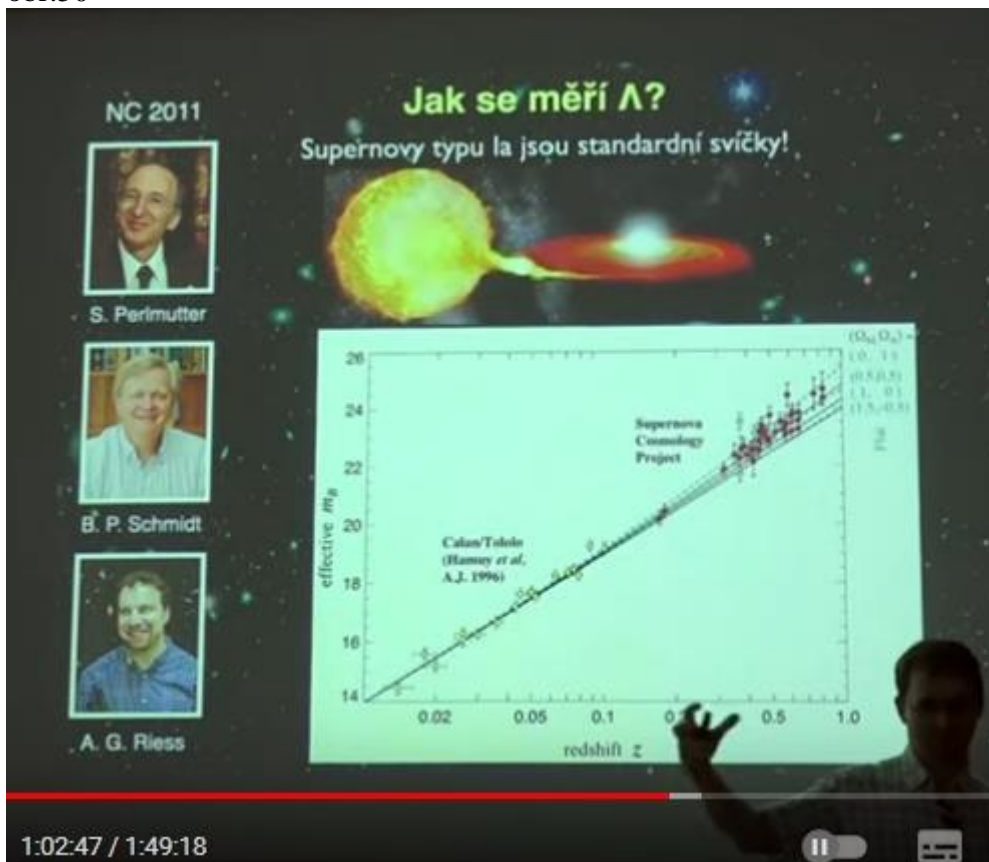
obr. 48 →



↓ **author** ...from 10^{-44} to 10^{+9} years there is an era of radiation, an era of matter, the universe also expands, but not exponentially, it expanded "normally" parabolically, i.e. the expansion

was decelerating - the Friedman-Lemaitre-Robertson-Walker curve. An interesting question is why exactly "now", 10^{10} years after the Big Bang, we have reached the phase of expansion change. And how do we actually know that the universe is expanding in this accelerating way? This is a relatively new thing (1:00:10h) for which an NC was awarded in 2011 (**Perlmutter + Schmidt + Riess**) and what the three gentlemen did was to **exploit one very interesting property of Type Ia supernovae** \leftarrow (*01) which arise in binary systems. One of them "pulls" the mass on itself, so at one point when this overflow exceeds the Chandrasekhar limit, which is 1.44 times the mass of the Sun, the gravitational forces will prevail and the mass of the white dwarf will cease to be able to hold the degenerate electron gas in the state of this gas and neutronization will occur very quickly and the energy will be emitted in the form of a supernova. What's remarkable about these supernovae of this type is that they're standard candles, because right there there's something like the Chandrasekhar limit, so they all explode under very similar conditions and...and if you **use this** \leftarrow (*02) and look at supernovae, which are far enough away to us...so these guys ****researched and researched** these supernovae at redshifts, anywhere from 0.5-1.0

obr.50



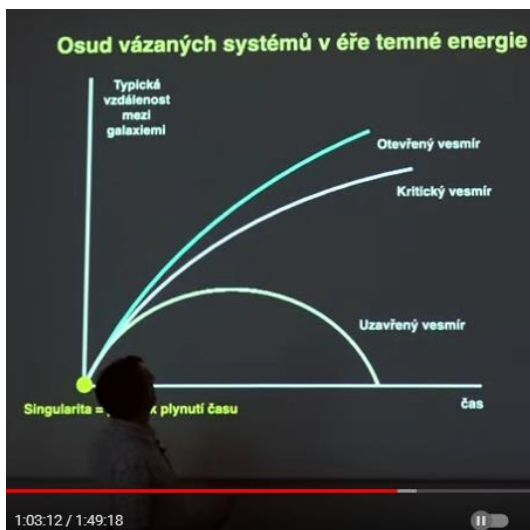
so they **discovered** the following : in ...actually **in universes**, you have no dark energy in **them**, (***03**) in which "lambda" is exactly zero, so the brightness of these supernovae should follow this curve, (***04**), linear, which is a luminosity decay curve **undetected, but modeled suggested** for *luminosity decay with distance* - as a linear relationship (!) because physicists still believe that the universe from the first inflation to the second "inflation" that is, until the accelerated expansion, spacetime expanded linearly, i.e. Hubble $\mathbf{v} = \mathbf{H}_0 \cdot \mathbf{d} = \mathbf{c} \cdot \mathbf{z} = \mathbf{c} \cdot \Delta\lambda/\lambda$. **If it is modeled as linear**, it may not be true in reality. In reality "Guth inflation" may not apply either and the expansion may not be Hubble, the expansion may be an ***unfolding*** of the curvature of spacetime http://www.hypothesis-of-universe.com/docs/c/c_081.gif (→ helper animation) which towards the Cod it is increasingly curved → http://www.hypothesis-of-universe.com/docs/c/c_239.jpg

, but here you see → **do you observe observationally ??** a clear statistical indication that the supernovae also lie outside this curve, suggested that the trend is here somewhere in those places, that the curve corresponds to that the most distant supernovae you see **are slightly darker** > **than they should be** < **according to those models** yes, the model does not match the observational reality that the "observed luminosity curve" is "darkening" (!), **yes it is getting darker**, but three the Nobel laureates evaluated this ***phenomenon*** as if the reason is dark energy (non-zero "lambda"). That was a proposal for reality!, A PROPOSAL.

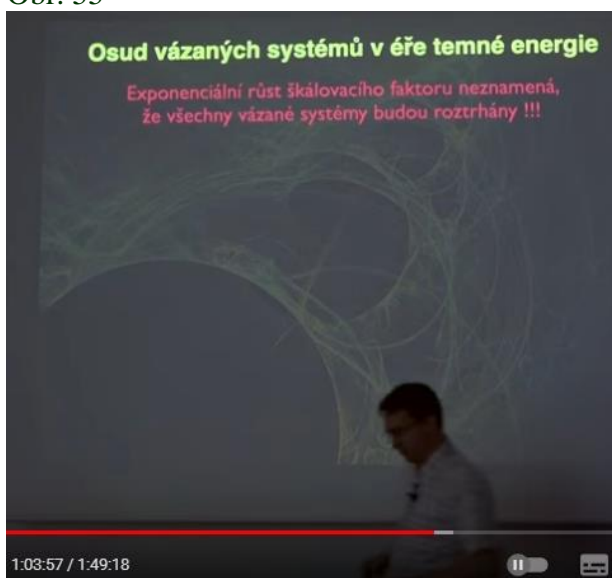
I propose that the reason will not be dark energy, but "curvature-curvature of space-time" ◇ global large-scale space-time towards the Bang is more and more curved until it reaches the plasma state = which is also curved space-time, it is a "boiling vacuum", it is foam of dimensions and in this foam, matter elements are born, it starts with quarks + gluons, then leptons, baryons, ..., etc. ..., atoms, molecules, compounds.... etc., up to proteins, DNA. Matter is born by "packaging" the space-time dimensions themselves. So the darkening of the luminosity of supernovae Ia **may not be due to dark energy**, although dark energy can still be in "my model", and it is: that dark energy is the state of space-time "above the Planck size scale", it is **boiling vacuum**, i.e. chaotic curvature of dimensions..., that is why **the density of dark energy is and can be almost constant** today in the "unfolding" 3+3D universe, i.e. in the much straightened curvature of space-time. Towards the bang, the ratio of "boiling vacuum" to "unfolded space-time" is different, the ratio (not the amount) is in favor of dark energy. It seems to the Nobelists that supernovae darken more compared to the model, yes, but it is not due to the "quota of dark energy" (it also changes), **but due to the increasing curvature of global space-time in the direction of the Big Bang...**, the universe – space-time is smaller and smaller, and also crooked and crooked, the density of black energy is higher, and higher ("lambda" non-zero) because it itself is also a "boiling foam" of dimensions. ***The reason for the darkening of supernovae Ia is therefore the "warping" of the space-time "expanded and unfolded" from the Big Bang***, (always a parabolic curve), not the dark energy itself, which is also "there" but which is also "its" state of foam of curved dimensions... , that is, if dark energy exists in the universe (and it does) it is not the reason for the "accelerating" expansion of space-time, nor the darkening of supernovae Ia, no, but the reason for the darkening is that we observe greater curvature at an increasingly greater distance (towards the Big Bang) of space-time, http://www.hypothesis-of-universe.com/docs/c/c_053.jpg in which that supernova, "more darkened, is located. It is also in accordance with STR. The light from that Ia comes to us "along the arc", along the curved global dimension, in which there is no cosmological constant. This dimming of supernovae just corresponds to the effect in the accelerating expansion. This is exactly the case when (1:02:41h) you can determine, **when you can determine** (?) the value of that lambda, when the lambda is non-zero. **The interpretation will be wrong here. (I will explain elsewhere)**. This means that our questions about how systems behave in a universe dominated by dark energy are relevant. (?) If you imagine what happens next with this scaling parameter, **in these types of cosmologies**

the character of the expansion is reversed (and this is where the speculation begins, not knowledge) Even in today's space-time, when it expands = better to say **unpacking**, there may not be and is not an accelerated expansion "due to dark energy"...because one can offer a model with a constant density of dark energy in which space-time only expands parabolically! ! Can Mr. Malinovský? - - Yes, in the past, around the era of matter, there could have been a lot of dark energy in absolute value, i.e. the ratio of TE to $\times 3$ higher, but that does not mean the reason for the accelerated expansion "today". Because other explanations can be offered. (before they had three Nobel Prize winners)..., and suddenly everything starts moving exponentially away from everything. **No. Where is the proof for this?** Not only exponentially fast, but also accelerated exponentially, but simply because all derivatives of exponentials are again exponentials, (1:03:48h) and thus the question creeps in: can bound systems actually withstand this? The answer is: fortunately, yes. **Mr. Malinský's further explanation is no longer on my agenda, I have no need to comment.**

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Obr. 55



konec...

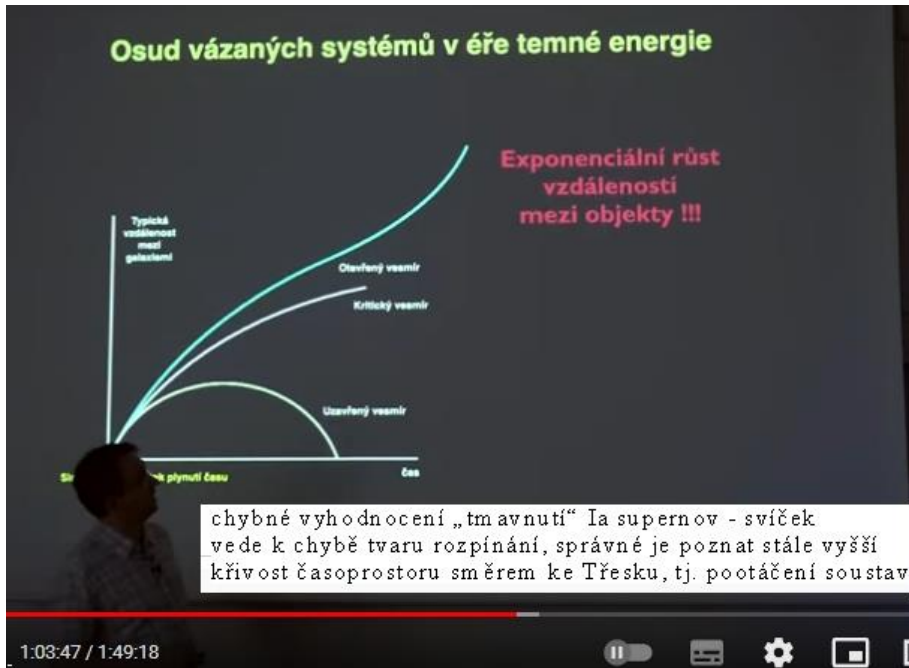
Three days ago, I commented on this lecture by Malinský in a different mood, as follows →

Malinský admittedly **a)** "clarified" the behavior of Ia supernovae, i.e. that they have the same luminosity = the same energy output during the explosion, which although decreases with distance, predictably, linearly - see the "standard curve" in the picture = and so it can be used, as Malinský says, as a model of the decrease in luminosity with distance, **but he did not say b)** "how-what" was detected-measured = deviation of the luminosity of all Ia candles from the "standard curve D E S I G N E D" ?? – see the second curve in the picture, when increasing the distance of the candles from us, the observers. **Malinský did not say whether the "model" = Ia curve was only designed or also actually measured and plotted in the "standard curve".** And then other Ia candles were measured, in which the "darkening" with distance was found, i.e. the deviation of luminosity from the model with increasing distance. (?) Then Malinský **said without clarification c)** that it **occurred** to the three "nobelists" that the reason for the "darkening" of supernovae = deviations from the model is the "accelerated expansion of the universe" and that from aged approx. 10^{10} years from big-bang. **Respectively, Malinský literally said: (*11) And this darkening of distant supernovae corresponds precisely to the effect of accelerating expansion, ← says Malinský.** But this is just an idea and it may not be true!, adds Malinský. !! (**I also have an idea how to explain the deviation of the >observed< "darkening" of Ia from the theoretical model of Ia. And Bobo Vonášek also has an idea...**) Malinský did not say **how-and-what** the Nobelists **clarified** the idea about "accelerated" expansion of space-time ..., just a statement that the deviation of the "darkening" of supernova-candles from the model is due to the accelerated expansion of space-time. By the way, Malinský also did not say **d)** "how" is "lambda" measured?! **even though he has this question in the title of his slide.**

The effect of accelerating expansion has a different reason, a different origin, a different explanation: it is precisely the rotation of the systems according to STR when "vé" approaches "cé".

It is said that it still holds true to this day, that is, that the statement is valid, not the established reality (when "vé" comes close to "cé"). **Hubble linear dependence $v = H_0 \cdot d$,** which therefore also applies to Ia supernovae. But this linear dependence (Hubble) is not consistent with STR. It can be proven that STR is essentially a "rotation of systems" (a system between an Observer fitted to rest and an observed object whose "vé" is close to "cé"). From this title >rotation<, that reality is happening by dilation of time and contraction of lengths. (on the rocket with "vé" "cé" is approaching, time runs at the same pace as on Earth, but the Earthling OBSERVES !!!, i.e. he receives information from the rotated object, he **observes** that dilation and contraction, not that "there" **on the rocket is** ..). From the logic of the matter, it will not be surprising that the same thing (i.e. the rotation of the global macro-universe, large-space-time) can also be observed in those Ia-supernovae, candles, that information emanates from them = light, "darkened", which was emitted from the rotated system to our system, and that is why we have the "darkening" of the candle radiation. By looking into the past, today's almost flat space-time changes, it is more curved and therefore, "lambda" increases numerically to states closer to the Bang, states approaching the relict old age, where space-time is already **more twisted**, it is more crooked than today's...; the older the space-time, the more curved, and therefore the coordinate systems of such an object are rotated...., therefore Ia light "darkens". The Nobelists have ****evaluated**** the "darkening" of supernovas wrongly as being due to today's accelerated expansion of ***today's*** space-time, and it is accelerated because the universe contains today's dark energy, i.e. "lambda is non-zero".. http://www.hypothesis-of-universe.com/docs/c/c_239.jpg This is said to be the type of

observation from which the "lambda" can be determined and thus the accelerated expansion of "today's state". http://www.hypothesis-of-universe.com/docs/c/c_239.jpg **Wrong evaluation of the "darkening" of Ia supernovae - candles leads to a wrong reasoning, i.e. to a parameter of the expansion of space-time such that the expansion accelerates. I think it is correct and necessary to first find out whether this "darkening" has a cause-reason in the ever-increasing curvature of space-time towards the Bang, i.e. the rotation of the systems in accordance with the STR.**
 obr. 54 →



JN, com 31.05.2022

Note: I will send my opinion to Mr. Malinský with a request for his expert counter-opinion... and I am 1000% convinced that Mr. Malinský will not give me any. (and I know, I also know the reason "why").

Today is 11/07/2022 and his counter-opinion has not yet arrived.

Today, March 23, 2023, I am translating into English with the help of a translator, and Malinský's answer did not come (significant for Czech physicists, the cowardice of reacting to the opinions of a layman).