Here is a selection of my thoughts, reflections and ideas for about 2-3 years

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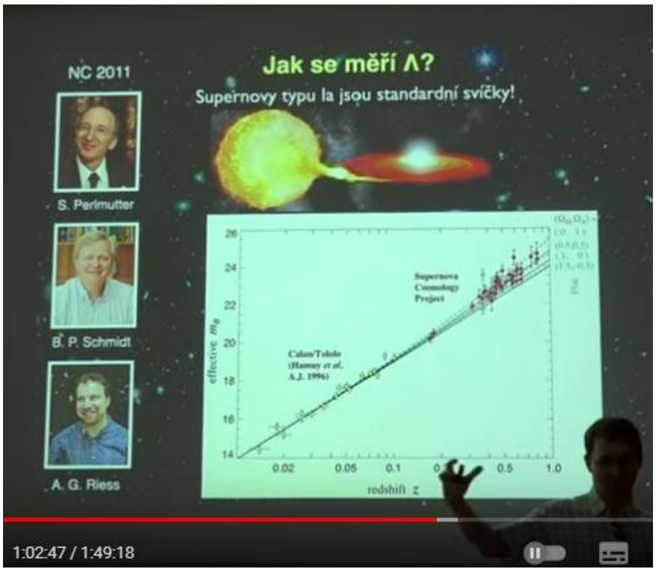
05/2022 Green font Malinský, red mine →...from 10 $^{-44}$ to 10^{+9} years there is an era of radiation, an era of matter, the universe also expands, but not exponentially, it expanded "normally" parabolically, i.e. the expansion was decelerating - the Fiedman curve- Lemaitre-Robertson-Walker. An interesting question is why exactly "now", 1010 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? (!! A rare question that 90% of physicists don't ask) This is a relatively new thing (1:00:10h) for which NC was awarded in 2011 (Pertmutter + Schmidt + Riess) and the three gentlemen did that took advantage of one very interesting property of Type Ia supernovae.. (*01) which arise in binary systems. One of them that "pulls" the mass on itself, so at one point when this spillover exceeds the Chandrasekhar limit, which is 1.44 times the mass of the Sun, it will happen that 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 here there's something like the Chandrasekhar limit, so they all explode under very similar conditions and... and if you take advantage of this (*02) and look at supernovae, which are far enough to us...so these guys examined and examined these supernovae at redshifts, somewhere from 0.5 -1.0

obr.50



so they discovered the following : in universe ... actually in universes, you don't have any 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 unobserved, but modeled suggested, for luminosity decaying with distance - like a linear relationship (!), because physicists still believe that the universe from the first inflation to the
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second "inflation" that is, until the accelerated expansion, spacetime expanded linearly, i.e. Hubble
$v = H_0 . d = c.z = c. \Delta\lambda/\lambda$.. 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-like, the expansion may be an *unpacking* of the curvature of spacetime http://www.hypothesis-of-universe.com/docs/c/c_081.gif (→ auxiliary animation) which towards the Bang is increasingly crooked → http://www.hypothesis-of-universe.com/docs/c/c_239.jpg , but here you see → *are you observing ? observationally ??* a clear statistical indication that the supernovae lie outside this curve, suggested, that the trend is here somewhere in those places, that the curve corresponds to the fact that the most distant supernovae that you see , are a little darker than they should be according to those **models** yes, the model does not match the reality of the observation that the "observed brightness curve" is "darkening" (!), yes it is getting darker, but the three Nobel laureates evaluated this *phenomenon* as the reason being dark energy (non-zero "lambda"). Dark energy was a suggestion of reality, not reality itself. I propose that the reason will not be dark energy, but "curvature-curvature of space-time" à 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. to proteins, DNA. Matter is born by the "packaging" of the space-time dimensions themselves. So the darkening of the luminosity of supernovae Ia does not have to be due to dark energy, even though dark energy can and is in "my model" anyway: that dark energy is the state of space-time "above the Planck scale size" it is a ***boiling vacuum***, i.e. a 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. already in a much straightened curvature no. Towards the bang, the ratio of the "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 for reasons of "dark energy quota" (it also changes), but **because of 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 froth" 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..., i.e. if dark energy exists in the universe (and it does) it is not the reason for the "accelerating" expansion of space-time, nor the warming of supernovae Ia, no, but the reason for the darkening is that we observe at an increasing distance (toward the Big Bang) a greater curvature 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…. are a little darker than they should be according to those models in which there is no cosmological constant. This dimming of supernovae just corresponds to the effect in the accelerating expansion. This is precisely the case when (1:02:41h) you can determine, when you can determine (?) the value of that lambda, when the lambda is non-zero. Here the interpretation will be wrong. (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, then in such 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 expands), may not occur and there is no accelerated expansion "due to dark energy"...because one can offer a model with a constant density of

dark energy in which spacetime *expands* only 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 x^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 to move exponentially away from everything. **No.** Not only exponentially fast, but exponentially accelerated, ****well simply because**** all derivatives of exponentials are again exponentials, (1:03:48h) and thus the question creeps in: can the systems bound to this actually withstand this? The answer is: fortunately, yes.

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01/2016 - Matt O´Dowd and the red font my opinion

Matter did not come out of "nothing" as physicists believe. And even mass was not "distributed" to the elements of matter by some higgs-boson, which has an infinite amount of it and therefore flies around the universe and distributes it to meet. My HDV has a solution, a better one that makes sense and is completely realistic. **It's just a piece of stuff that's a separate torso-shell. It has boundaries and different properties. Maybe color, shape, size, weight.** Yes, the elements of matter as bundles of rolled dimensions have shapes, size, different number of dimensions, and mass is then a property of matter. **These hours are a thing. You are a thing. I am a thing.** ??? The clock is a mechanism for "trimming" intervals, which can be compared with intervals on the time dimension, which are "trimmed" by matter (field) by its movement-displacement through 3+3D space-time. **Galaxies are things.** A clock is not time, but Time is not the same artifact as matter and as Length, thus space of 3 dimensions of length. Length and Time are phenomena of being that are not "from something or from Nothing". But matter "from something" is, so it is a derived quantity. It is built precisely from 3+3 time-space dimensions http://www.hypothesis-of-universe.com/docs/c/c_052.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_041.jpg .
Time goes on. We run along time, along the time dimension and cut off intervals, time itself does not run... but it is possible ***to distinguish two, at least two***, paces of the passage of time:
a) during the unwrapping of the Universe, i.e. the unwrapping of the three temporal dimensions of space-time from the Big Bang, which leads to the "aging" of the Universe, e.g. the auxiliary image here → http://www.hypothesis-of-universe.com/docs/c/c_081.gif ; http://www.hypothesis-of-universe.com/docs/c/c_239.jpg (the three time dimensions cannot be seen here...but even Maruško from 6A can imagine spatial ones; http://www.hypothesis-of-universe.com/docs/f/f_047.jpg ;) and
b) the rate of passage of time here on Earth in the period of 13.8 billion years since the Big Bang, which we do not know (and probably will not know for a long time) how big it is compared to the "***infinitely*** slow rate $\mathbf{t_0}$" (infinitely large time interval) and the "***unit***" rate $\mathbf{t_1}$" (***chosen*** interval) on the photon, and $\mathbf{t_z}$ on the Earth;... $\mathbf{c = 1/1 = x_1 / t_1 \;>\; w = x_1/t_z \;>\; u = x_1/t_0}$; http://www.hypothesis-of-universe.com/docs/c/c_048.jpg ; are you firmly convinced that the speed of time is the same everywhere between galaxies and clusters of galaxies?, even "now", even 5 billion years ago? http://www.hypothesis-of-universe.com/docs/c/c_362.jpg
I'll put an image here for the eyes for "tempos of time" from my earlier work in building Lorentz transformations →
I get to explain the use of my convention →
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Dostávám se k vysvětlování své konvence :

$$1 = c > w = w > u$$

rychlost uúú je pak taková, kde současně klesá čitatel a roste jmenovatel vůči cée

$$1 = \frac{x_c}{t_c} > \frac{x_v}{t_c} < \frac{x_c}{t_w} > \frac{x_v}{t_w}$$

symbolicky uvedu číslo, které je tím číslem, ke kterému se veličiny blíží

$$\frac{1}{1} > \frac{0}{1} < \frac{1}{\infty} > \frac{0}{\infty}$$

We do not know at all whether in "stop-time", *cut across the entire Universe,* whether there is the same rate of time passing in every place of the Universe as on Earth.

c) ...and we definitely know about other "changes in the pace of the passage of time" see STR A all three **a)** ; **b)** ; **c)** options lead to combinations and... that's a nice stew not only in the stop state, but also during the genesis of the Universe to date. **On the timeline of the stationary clock, the ticking of the moving clock does not match.** But that's "your" problem. The clock ticks the same everywhere, in the whole universe the same, everywhere, (it is set to some tempo of the passage of time), and **from the point of view of the "stationary" Observer** he appears to change the tempo of the passage of time on the object, (which moves either with uniform or accelerated movement, see STR)... although there is no change in the pace of the passage of time (according to the same set clock) on that object. **The moving clock seems to be ticking more slowly**. It appears to a "standing" observer who "calculates" the rate of passage of time on a rocket on paper according to STR. And the physicists did not understand that the STR is only a manifestation of the rotation of the systems, the system of the object in motion and the system of the basic Observer. Time moves forward as the curvature of this time dimension unfolds. It also expands in the antiworld, but it was curved there (after the big bang) apparently symmetrically inverted. That's why time doesn't run for us, but we run "for it", i.e. we move the time dimension and by cutting time intervals, we "perceive" the passage of time. Cause and effect can only be debated in a situation where "time is running". And that only happened after the Big Bang. Before the Big Bang, time did not run. (!) Nevertheless, "there" must be the "cause", namely: why the Big Bang happened. (?) The Big Bang is a "jump change of state" of the previous flat infinite Euclidean space-time 3+3D without matter, without fields, without the passage of time, without expansion... to the state "after the Big Bang", when the opposite extreme occurred: spacetime is maximally crooked (plasma = boiling vacuum of those dimensions, only those dimensions). And here 3+3D begins to unfold, i.e. the unfolding of time dimensions begins and we perceive this as the flow of time (we, material objects, then travel "through time = along the time dimension". Time does not run for us, but we run along it) . Creation occurs = genesis of material elements, unfolding of length dimensions. Simultaneously with the unpacking of the 3+3D plasma - the soup of crooked dimensions, local formations-elements are packed (!) into packages-balls made of those dimensions, and these are elementary particles of matter, produced by packing dimensions. So the global macro-unpacking and micro-unpacking of dimensions "runs" simultaneously, which is the production of matter and physical fields and...and also new and new laws are created, which did not suddenly appear in the list with a big bang. The genesis of everything. The Big Bang was just a change in the state of curvature: from flat to curved.
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The quantum world rules on the scales of the microworld because this state is a finely "crumpled-packed" space-time itself, it is a "foam" of dimensions, an interaction of crooked states of dimensions. The quantum field is essentially a "cut" - "snapshot - projection" into the plane of the observer, who he sees "a kind of" discontinuous state of "points and gaps"; "zeros and ones"; "nothings and ones"; "clusters and non-clusters", condensations and dilutions. The quantum world passes from the microworld to the gravitational macroworld, so-and-so that the curvatures of space-time "unfold" into precisely defined curves of "gravitational fields", i.e. the less curved dimension. So this is a "transition" from highly curved states of space-time to less and less curved states of space-time... the universe expands by unwrapping its curvature, which is supposed to disappear at some point in the "big-crunch". That is, the Big-bang is such a "quick-jump transition" from the state of flat space-time (before the big bang) to the opposite state = very curved = "foam of space-time dimensions" and. .and then there will be a smooth transition to the big crash, i.e. the *gene will now occur from changes-changes* (while alternating symmetries with asymmetries) of these curvatures in the direction "from the foam of the Bang" to the flat empty vacuum in the big-crash". It is still interesting, however, that between these two end states of the dynamic Universe, i.e. "initial state = big-bang" and "end state = big-crunch", an event takes place according to the principle of alternating symmetries with asymmetries *not just "unpacking"* 3 +3 dimensions of "foam" into global-space-time (between galaxies), but in that "initial chaotic foam" also *packing 3+3 dimensions of space-time* into those "packages-geons-balls" = elementary particles of matter, (each an element has its exact geometric-topological shape, where, in addition, those elements also transform in a pyramidal way - conglomerate into more complex structures, i.e. into atoms, molecules, compounds. At the same time, the pyramidal sequence of composition "runs" and "into a series, which are clusters of dust + stars + galaxies - And even in the middle of the genesis of the universe from the big-bang to the big-crash, by warping into matter, not only the initial foam is "consumed" by the curvature of space-time, but even another new "foam" of dimensions is "born" and that in vacuum. That is, on smaller ones and smaller scales of space-time, the foam in this vacuum is even finer than the "initial post-Big Bang foam"... as if in the midst of evolution (from Bang to Crash) another new space-time "from the depths of the Planckian vacuum" is being born all around us.

+ deutsche →

Die Quantenwelt herrscht auf der Waage der Mikrowelt, denn dieser Zustand ist selbst eine fein „zerknüllte“ Raumzeit, er ist ein „Schaum“ von Dimensionen, ein Zusammenspiel von krummen Dimensionszuständen. Das Quantenfeld ist im Wesentlichen ein „ Schnitt" - "Schnappschuss - Projektion" in die Ebene des Betrachters, der dort "eine Art" diskontinuierlichen Zustand von "Punkten und Lücken", "Nullen und Einsen", "Nichts und Einsen", "Haufen und Nicht-Haufen" sieht ", Verdichtungen und Verdünnungen. Die Quantenwelt geht von der Mikrowelt in die gravitative Makrowelt über, so und so, dass sich die Krümmungen der Raumzeit in genau definierte Kurven von "Gravitationsfeldern" "entfalten", dh die weniger gekrümmte Dimension. Also dies ist ein "Übergang" von stark gekrümmten Raumzeitzuständen zu immer weniger gekrümmten Raumzeitzuständen ... das Universum dehnt sich aus, indem es seine Krümmung auswickelt, die irgendwann im "Big-Crunch" verschwinden soll ist, der Urknall ist so ein "schneller Übergang" vom Zustand flacher Raumzeit (vor dem Urknall) in den entgegengesetzten Zustand = stark gekrümmt = "Schaum der Raumzeitdimensionen" und ... und dann es wird einen fließenden Übergang zum großen Crash geben, d. h. das *-Gen wird jetzt auftreten von den Änderungen-Änderungen* (während Symmetrien mit Asymmetrien abwechseln) dieser Krümmungen in der Richtung

"vom Schaum des Knalls" zum flachen leeren Vakuum im großen Crash". Interessant ist aber dennoch, dass zwischen diesen beiden Endzuständen des dynamischen Universums, also „Anfangszustand = Big-Bang“ und „Endzustand = Big-Crunch“, ein Ereignis nach dem Prinzip der alternierenden Symmetrien mit Asymmetrien stattfindet *nicht nur 3+3 Dimensionen von "Schaum" in die globale Raumzeit (zwischen Galaxien) "auspacken"*, sondern in diesem "anfänglichen chaotischen Schaum" auch 3+3 Dimensionen von Raumzeit* in diese "Pakete" packen -Geonen-Kugeln" = Elementarteilchen der Materie, (jedes Element hat seine exakte geometrisch-topologische Gestalt, wobei sich diese Elemente zusätzlich auch pyramidenförmig - konglomerativ zu komplexeren Strukturen, also zu Atomen, Molekülen, Verbindungen, zusammenballen. Gleichzeitig „läuft“ die pyramidenförmige Kompositionsfolge „auf“ und „in eine Reihe, die Staubhaufen + Sterne + Galaxien sind – und das sogar mitten in der Entstehung des Universums vom Urknall bis zum Urknall Durch die Verkrümmung in Materie wird nicht nur der anfängliche Schaum durch die Krümmung der Raumzeit "verbraucht", sondern es wird sogar ein weiterer neuer "Schaum" von Dimensionen "geboren", und zwar im Vakuum. Das heißt, auf kleineren und kleineren Raum-Zeit-Skalen ist der Schaum in diesem Vakuum noch feiner als der "ursprüngliche Schaum nach dem Urknall" ... als ob mitten in der Evolution (von Bang bis Crash) eine weitere neue Raum-Zeit "aus der Tiefen des Planckschen Vakuums" wird überall um uns herum geboren.
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Entropie (od jistého pravého fyzika) (+ k tomu mé povídání)

Slavným příkladem konformního přeškálování je tento obrázek od **Eschera**. Představte si, že všichni tito netopýři jsou stejně velcí a jakmile jsou vyplněni v nekonečné rovině. Abstraktně řečeno **: zmuchláním** nekonečné roviny x,y, získáte také „singulární pěnu“ = náš poTřeskový stav Vesmíru. Abstraktním vizualizacím se nikdo nebrání…Na tomto obrázku jsou všichni stlačeni do konečné oblasti. O.K., já používám přímĕry s extrémním sbalením dimenzí „do sebe“ = do pěny. http://www.hypothesis-of-universe.com/docs/c/c_168.gif Nyní v případě Penrose, nekonečná věc, kterou měníte, není jen prostor, ale časoprostor. Správně ! Změníte měřítko obou a pak přilepíte konec našeho vesmíru k novému začátku vesmíru. no…no také to můžete nazvat, jako já : „Třeskem = změnou stavu“ 3+3D plochého na 3+3D extrémně sbaleného, proč ne ? Matematicky to úplně zvládnete. Ale proč bys? A jak je to s fyzikou? Nejprve si promluvme o tom, proč to chcete udělat. O.K. Penrose se snaží vyřešit velkou hádanku já také v našich současných teoriích vesmíru. HDV nebyla za 20 let presentace na internetu ještě ani přečtena …natož nastudována…a natož diskutována argumenty, protiargumenty. Je to druhý zákon termodynamiky : entropie se zvyšuje. Teorie entropie je krásná věc…ale také tu je „něco“ co je opakem entropie ! ! a to je „výroba hmoty – elementů a hmoty“ složitější a složitější entity až skončíme v biologii bílkovin u DNA. Vidíme, že se zvyšuje. Ale to, že se entropie zvyšuje, znamená, že musela být v minulosti menší. A nejmenší musela být v té „chaotické pěně vřících dimenzí“, v níž se začne organizovat geneze stále složitější a složitější hmoty,.. a geneze fyzikálních polí,..a geneze velkovesmírných galaktických struktur,…a geneze interakcí v mikrosvětě,…a paralelní geneze zákonů a pravidel a principů… Vesmír musel skutečně začínat s velmi malou entropií, jinak prostě nedokážeme vysvětlit, co vidíme. O.K. „pěna = plazma“ = zmačkaný časoprostor a ten se začne **r o z b a l o v á v a t** do sítí – pavučiny v makroměřítku http://www.hypothesis-of-universe.com/docs/c/c_362.jpg = http://www.hypothesis-of-universe.com/docs/c/c_241.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_344.jpg (13,8 miliard let po Třesku) a souběžně s tím i **s b a l o v á v a t** do těch geonů = elementárních částic, http://www.hypothesis-of-universe.com/docs/c/c_283.jpg ;
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http://www.hypothesis-of-universe.com/docs/c/c_266.jpg pak do atomů, molekul, sloučenin → to vše je organizovaně sbalený časoprostor. http://www.hypothesis-of-universe.com/docs/eb/eb_002.pdf Že raný vesmír musel mít malou entropii, se často nazývá minulá hypotéza, termín vytvořený filozofem **Davidem Albertem**. Naše současné teorie dokonale fungují s minulou hypotézou. Ale samozřejmě by bylo lepší, kdyby to člověk nepotřeboval. Kdyby člověk místo toho měl teorii, ze které by ji mohl odvodit. Penrose na tento problém zaútočil tím, že nejprve našel způsob, jak kvantifikovat entropii v gravitačním poli. Již v 70. letech tvrdil, že je zakódována ve Weylově tenzoru křivosti. Křivosti čeho ? Vesmíru ? nebo časoprostoru ? ..?
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Before the Big Bang 9: A Multiverse from "Nothing"
Před Velkým třeskem : Multivesmír z "Ničeho"
That sentence doesn't have a question mark at the end...and that's a mistake.

((*-*)) My version in brief : Before the Big Bang, the Universe was-existed, but it was in a different state than the Universe after the Big Bang. Before the Bang, there is a "simple" two-dimensional 3+3 dimensional space-time, Euclidean flat-non-curved, smooth-continuous, infinite, without passage of time, without expansion, without matter, without fields and ... and maybe even without laws-rules. The Big Bang-Bang **is only a change of state !!, a jump extreme change, from the state** of 3+3 flat-straight dimensions to the "opposite" state, i.e. extremely curved space-time dimensions. The new state will be "our Universe" as a "locality-singularity" that "floats" in that pre-Bang grid of 3+3 flat dimensions, a locality that manifests as a spatio-temporal chaotic dense foam (non-isotropic ??), boiling vacuum, http://www.hypothesis-of-universe.com/docs/c/c_415.gif, in which genesis begins
a) "unpacking" the curvature of dimensions and...and concurrently as well
b) the "packing" of dimensions into packages-balls, the geometric configuration of which "freezes" by curvature "in the package", will remain "forever" unchanged (an electron is an electron forever), and...and these packages will behave and manifest as elementary particles = mass (we know 25 packages-elements of the standard model). When "unwrapping" the foam of dimensions to globally large-scale dimensions (* at each point time and space will begin to unwrap, which is not clear in the "theory" of inflation by A. Guth*) the four semi-unwrapped states, partially unwrapped into a certain geometric configuration of curvatures, will behave like a "physical field". The initial plasma gradually unfolds into states of fields but also into states of packages - elements of matter. So: parallel to this sequence - the genesis of transformations of "unpacking and unpacking" by the curvature of dimensions, everywhere in "our" time-space, a second sequence will also develop in parallel: a sequence of laws-rules-principles that did not exist before the Bang. (And even after the Big Bang, all the laws we know today did not exist. Even those laws were gradually recruited, implemented with the transformation of matter and space-time).
Whether this "our" Universe will "expand = unwrap "infinitely and forever", I do not want to speculate...; and if he were to expand "forever", all dimensions, both time and length, would be straightened to the same state as they were before the Bang. The time dimensions would also straighten out, meaning that the "flow of time" would stop.
You can find further explanation about my HDV vision in dozens of other web-documents. Without dialogue, it's sad, slow, and grating.

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Eventually the universe will fall apart. But if you ask why it fell apart at that particular moment? There is no reason. There is no cause. Or we don't know it yet. So quantum mechanical processes like these are innocent and spontaneous creation of the universe is of the same nature. That is still your "first" vision-version of the Universe. The "second" vision has not yet been explored, my HDV : **jump change in curvatures of dimensions 3+3** Euclideanly flat before the Bang to extremely curved curvatures - plasma, foam of dimensions, boiling vacuum, after the Bang - our Universe It does not require any cause. That I can't judge. Nevertheless, I think that your "first" vision: ****the creation of the Universe from Nothing,** i.e. the creation of both space and time and matter with "finite mass"** is a less beautiful vision than the "second" vision, when flat 3+3D space-time is infinite in its dimensions of time and length..., and in which a "shear-bang" (without cause) becomes a "finite location" (singularity?) of extremely curved dimensions and this "foamy location", a foamy plasma environment of chaotically curved dimensions, will become a developmental incubator of transformations, i.e. the production of packages = elementary pures by packing dimensions into balls, which then become the building blocks of other products - atoms, molecules, compounds, chemistry, biology, even DNA..., then the genes of changes in the curvature of space-time, physical fields and so on reciprocity of matter and space-time, as everyone already knows. It is only a small SUBSTANTIAL difference between **the "first" vision of yours** :

- the emergence of everything from Nothing
- and my "second" vision: the creation of matter and fields in the environment of spatio-temporal foam = plasma from the dimensions of two basic quantities, where each configuration of the applied curvature of each dimension from 3+3 carries-supplies "properties" and "laws" to the configurations. I believe that when there are people who understand HDV, that they will refine the vision of HDV into a bushy beautiful meaningful description than this simple, skeletal description of mine. Once nuclei form in a small universe, they are assumed to undergo inflation. It will be created, yes, sure, but from the dimensions of the Length and Time quantities in a packaging style...etc. see HDV. But as Vilenkin pointed out in the early 1980s, this had staggering implications for the large-scale structure of reality. It all depends on how inflation ends. This is done through bubble nucleation. What are "bubbles" made of and what is "nucleation"? I think that the bubbles will be from the dimensions of space-time, and nucleation is the wave packing of those dimensions into balls...So it's like boiling water. In this expanding, inflating universe, a small bubble of our vacuum pops, and out of the "alien" vacuum emerges what ? like the one we live in, and it starts to grow..., what is "growth" ? When I say "the curved-coiled dimension, that it expands and thereby stretches and thereby "increases the length" (of the interval), it makes sense, but for you it "grows" from what? And this bubble nucleation is also a random quantum process. It happens in different places randomly, and so─ After a while, you'll have this inflatable ((expanding)) space, littered with these different bubbles. Bubbles that have formed before are large, bubbles that are still forming are small. And as I said, the bubbles grow, they only grow as the curvature of the dimension expands but they very rarely collapse because the space between them expands even faster. Space expands and bubbles (with different dimensional curvature) "float" in it http://www.hypothesis-of-universe.com/docs/c/c_241.jpg this is an imperfect visualization of "expanding" and "centers in The universe is not just one, but millions of such centers, that is, each area of galactic clusters and half-empty spaces between them, unfolds differently... http://www.hypothesis-of-universe.com/docs/c/c_240.jpg different curvatures of curved dimensions into they fit together

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Entropy a new view 05/2022 (from the article http://www.hypothesis-of-universe.com/docs/aa/aa_202.pdf page.18 – D.Zoul.)

Again, we can explain this at the elementary level of describing the world on the Planck scale, where the thermodynamic arrow of time cannot be introduced, O.K. not in foam.. as we showed in the fourth chapter. A parton oscillating chaotically between the cells of the ticker world can be understood as a particle jumping between connected containers. In the fourth chapter, we showed that all configurations of such a system are equally probable ((O.K. In boiling foam. But in this foam, miracles begin to happen according to the rule of alternating symmetries with asymmetries, without which genesis, development to the present form could not occur: complexification states, the conglomeration of simple packages into more and more complex ones. First the "production" of 25 elementary particles, the standard model, then atoms, then molecules, then compounds, then chemistry, then biology up to DNA...; The universe first "unpacks" itself into global sizes and secondly even its localities pack up into more and more complex structures .., dimensions pack up, of course. Otherwise (without the packing and unpacking of dimensions) we wouldn't even notice the existence of entropy in the Universe.)) and therefore cannot establish a thermodynamic arrow of time for it, ((physicists like it introduces "something" to the universe, instead of observing, "what" the universe itself already has...; and what physicists do not observe, they introduce to it - the Universe – themselves)), which would be d by the growth of entropy in the direction from more ordered and therefore less probable states to those with greater probability and entropy. ((Zoul's interpretation is imperfect, = unscientific. It's a little different: It's been happening simultaneously since the Big Bang
A) global unwrapping of plasma = "boiling" state of 3+3 dimensions and
B) in the microworld, the packing of 3+3 dimensions into ever more complex and complex systems, so that the more complex and even more complex ones are "born" less and less http://www.hypothesis-of-universe.com/docs/aa/aa_037.pdf ; http://www.hypothesis-of-universe.com/docs/g/g_041.pdf ,.. that is, there is the least amount of the most complex matter in the Universe (and that is precisely on Earth - see the pyramid). I want to say that *first* there must be "the production of those arrangements = higher complexity of the system", so that *then* the **entropic phenomenon** can occur, i.e. the thermodynamic arrow in one direction "unpacking = disintegration" of the system, highly complex = ordered, to the complexity of curvatures of dimensions to less complex-more ordered states with smaller sets of curvatures, i.e. the (most) ordered state to less ordered systems. The transformation-transformation of the "most ordered" state = Euclidean flat 3+3D space-time, to the extremely chaotic state = crooked disordered, happens in the universe by a "leap". And then involuntarily the entropy happens - the unfolding of dimensions, i.e. states with higher order change to less ordered ones, entropy increases. So in the universe like this: there is always a "jump" change from "smoothness" to "curvature" and then slowly (over time) the curvature changes to smaller and smaller curvatures. Why ? I don't know that yet. The first "jump" happened in Bang...; and more and more and more jumps followed. That is, entropy is similar to the big-bang in the sense that **"first" there must be a jump to high order and from this "stop-state" the process of entropy will begin, i.e. increasing disorder and...and the same thing over and over again: first a jump to order (the complexity of matter is higher) and gradual disorder follows = complexity decay.**))
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JWSTs could help settle one of the biggest controversies in modern astronomy: the dispute over the expansion rate of the universe. And the error that the physicists will have to "discover" is not in the wrong measurement, but in the substituting of the measured values into... into the wrong mathematics,... is that the Universe is **not expanding axially**-Hubble-wise **v = H.d** , but is **unpackt, unfolds** - http://www.hypothesis-of-universe.com/docs/c/c_239.jpg , i.e. the 3+3 dimensions of space-time, which after the big bang was "foamy" (boiling vacuum), i.e. very strongly "crumpled" = curved, are unfolding non-linearly space-time, which physics calls the quark-gluon plasma. In this environment, "packages = elementary particles" of packed coiled dimensions (25 basic mass particles - Standard Model) are born, which are further packed-compacted into "clusters", first as atoms, then molecules, then compounds up to biology and up to DNA. In this "chaotic plasma" of curved dimensions, a two-fold development takes place:
a) the packing of dimensions into fixed immutable packages-balls-geons (particles of matter) and
b) the unpacking of the "surrounding" chaotic space-time into less crooked states such as physical fields..., and further unpacked čp is that global intergalactic space-time, such a "mixture" of various non-geometric curvatures half-expanded. Etc. as they describe in more words elsewhere in HDV. It is not out of place to also mention "other expansion-unpacking: time. No one yet knows whether the pace of the passage of time is still the same since the Big Bang as it is today, and whether the stages of history have also changed to today 13.8 billion years since the Big Bang, i.e. **whether the pace of passage has not changed,** because we already know 100 years from STR, that the pace of the passage of time changes today = in a stop-state = stop-time with respect to a chosen observer, e.g. an Earthling, who has passed into rest and who observes the movement of bodies into the Universe not only their speed of departure, but also the "movement" into the past... where STR claims that the pace dilates, i.e. that time is already moving terribly slowly on a quasar near the visibility horizon... because the observer, according to Hubble, sees that the quasar is moving away from us almost véé = céé (but the observer "on the quasar" does not think so either we fly in ŕ c). Etc.

Although seemingly small, the difference between these numbers **of 67 versus 73** is huge compared to the high-precision agreement that exists in other cosmological measurements. The measurements are correct, the models they fit into are incorrect. Simply put, something that cannot be added up. The researchers aren't sure how to explain this discrepancy, which they call the Hubble tension. This may just be an error resulting from the different ways the Hubble constant is measured. Otherwise, the tension could mean problems for our current understanding of physics, --> The universe does not expand Hubble-wise - axially according to **v = H.d** ..., or the Hubble equation is linear up to a certain distance (to a certain past towards the Big Bang) and then the linearity changes (!)--> http://www.hypothesis-of-universe.com/docs/c/c_239.jpg , forces theorists to reconsider (and perhaps shelve) some of their most prized models. According to **Treu**, this would mean the HST voltage is a real discrepancy and not just the result of a bug error. If so, **Treu** adds, that would probably point to something fundamentally absent from our understanding of physics. Which is my observation that **the Universe is unfolding (not expanding)** from its highly curved 3+3D spacetime beginning to the less curved global 3+3D spacetime today… Since early space studies rely on physical models to extrapolate their initial data to the present, missing physics could be why these studies produce 67°C. What kind of missing physics? "It could be another neutrino," says **Riess**. "It could be an early episode of dark energy. It could be decaying dark matter. It could be a primordial magnetic field. Professor Riess, you are still missing the 'last relay peg' to the model of the Universe ie HDV : Every Dimensional Warp of space-time

(3+3D) leads to the realization of matter (energy) and fields. All "curved states" of the dimensions of space-time "float" in less curved spaces-time and finally in the basic lattice-yarn of Euclidean flat infinite space-time, which no longer expands, i.e. does not unfold - there's the big-crach.. All of these were proposed as things to help mitigate or explain it. How can JWST explain the expansion and even the accelerated one when its results are going to fit into the wrong model ???! " But **Trese** points out that none of them have a "strong second line of evidence" beyond the fact that they could help explain the Hubble's tension. Likewise, **Freedman** notes that most of these ideas wind up "destroying" others, agreed upon parts of physics somewhere along the line. "This is going to turn out to be really difficult to solve - which is not to say that someone doesn't come up with a brilliant idea at some point, HDV → space-time unwrapping, unpacking http://www.hypothesis-of-universe.com/docs/c/c_357.jpg "says **Freedman**. Could be a hole in the physics
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The quantum world rules on the scales of the microworld because this state is "crumpled-packed space-time itself, it is a "foam" of dimensions, an interaction of crooked states of dimensions. The quantum field (it is no longer "chaotic plasma"), by its very nature, a certain vibration - "image - projection" onto the plane of the observer, who sees "some kind of" discontinuous state of "points and gaps"; "zero and one" ; "of nothing and of something"; "clusters and non-clusters". I can't express it with my poor eloquence. The quantum world from the micro world passes into the gravitational macro world, so-and-so, that the curvatures of space-time are "unwrapped" into certain precisely determined curves of "gravitational fields", i.e., a less curved dimension. It is therefore a "transition" from very crooked states of space-time to less and less crooked states of cp..., the universe is expanding, its curvature is loosening, which is supposed to disappear sometime in the "big-crunch". So: Big-bang is the act of such a "quick-jump transition" from the state of flat space-time (before the big bang) to the opposite state = very curved = "foam of space-time dimensions" and..and then there is a smooth transition to the big-crash, i.e. now the genesis of changes-transformations (alternating symmetries with asymmetries) of these curvatures will occur in the direction "from the "foam of the Bang" to the flat empty vacuum in the big-crash". It is still interesting, however, that between these two end states of the dynamic Universe, i.e. "initial state = big-bang" and "end state = big-crunch" something happens, according to the principle of alternating symmetries with asymmetries, not only the "unwrapping" of the "foam" dimensions " into the global-space-time (between galaxies), but in that "initial foam" there is also the packing of 3+3 dimensions of space-time into those "packages-geons-balls" = elementary particles of matter, where, in addition, those elements are transformed in a pyramidal way - conglomerationally they cluster into more complex structures, i.e. into atoms, molecules, compounds. At the same time, the pyramidal sequence of assembly also "runs" into a series - clusters of dust + stars + galaxies. And even in the middle of the genesis of the universe from the big-bang to the big-crash, the initial foam is not only "consumed" by the "unwrapping" of space-time, but another new "foam" is even "born" in a vacuum, that is, on smaller and smaller time scales. space, the foam in this vacuum is even finer than the "initial post-Bang foam"...as if another new space-time is being born "from the depths of the Planckian vacuum" all around us.
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Roger Penrose first said that we should be looking for rings. These rights come from collisions of supermassive black holes in the eon before ours. This is basically the most violent event imaginable and therefore should produce a lot of gravitational waves. , the search for these signals remained inconclusive. Penrose then found a better

observational signature from an earlier **eon**, which he called Hawking points. Supermassive black holes in an earlier eon evaporate, leaving behind a plume of Hawking radiation that spreads throughout the universe. But at the end of an eon, you rescale and compress all that Hawking radiation together. And there is no simpler HDV interpretation that: at the end of the eon, which is the unfolding of all the curvatures of the space-time dimensions "outside" matter and "inside" matter, that a totally Euclidean flat 3+3D space-time will appear, which """"anytime and anywhere"""" will explode with a big-bang again, I say in HDV there will be a change from the "pre-Bang" state to the "post-Bang" state, i.e. flatness with a jump (phase?) will change to extreme curvature of all dimensions - boiling, chaotic, dense foam of dimensions = plasma. And now genesis in that foam: packaging into frozen geons-packages = elementary particles and... and unpacking those dimensions into the global environment of clusters of galaxies.

This will carry over into the next eon says Penrose ! Who will carry it "there" ? and form a localized point with several rings around it in the CMB. And these Hawking points are indeed there. It's not just Penrose and his people who found them in the CMB. The thing is, some cosmologists have argued that they should be there even in the most popular model of the early universe, which is inflation. So this prediction may not be wrong, but it may not be a good way to distinguish the Penrose model from others. Penrose also says that this conformal rescaling requires the introduction of a new field, which gives rise to a new particle. I repeat: the physicists are misleading the universe !!!, but the Universe should mislead the physicists !! Am I also allowed to mislead the Universe? ? ? He called this particle "**erebon**", named after Erebos, the god of darkness. Erebons can form dark matter. And fairies, fireflies, and watermen can "make" a nice fairy tale. They are heavy particles with a mass of about the Planck mass, so they are much heavier than the particles that astrophysicists usually think of as dark matter. However, it is not out of the question that dark matter particles could be that heavy, and indeed other astrophysicists have considered similar particles as candidates for dark matter. Penrose erebons are ultimately unstable. Said God. Remember, you have to get rid of all mass-matter at the end of the **eon** to get to conformal invariance. Physicists say that the accelerated expansion will "tear apart" the matter, well, they don't say what's left of the torn matter (?) So Penrose predicts that dark matter should slowly decompose. Ehm..everyone calls it differently, the Nobelist "**decomposes matter**". (god knows what and how), and **I decompress matter**, because it is constructed by packing dimensions, that is, at the end of the aeon, there will again be a clean flat 3+3D dimensional space-time. Penrose will be left with "what"? of that matter? (he is said to be left with "conformal invariance" ...ahem .However, this decay is so slow that it is difficult to test. Sure...Hell with devils is also hard to test. He also predicted that there should be rings around the Hawking points in the CMB B modes, which is the thing the BICEP experiment was looking for. http://www.hypothesis-of-universe.com/docs/c/c_423.gif

But even these have not been seen – yet. Okay, that's my brief summary of conformal cyclic cosmology, what I think about it now. And Mrs. Sabina, what do you personally think? because what you say is what Penrose et al. thinks.. I mostly have questions. It is clear that the universe is not really conformationally invariant and that postulating all Higgs bosons disappear or something like that is rather ad hoc. Well, that's the thing...it's realistic in my HDV. But this isn't really my main problem. Maybe I've spent too much time among particle physicists, but I've seen a lot worse. ☺ Unparticles, anyone? One thing that gives me a headache is that it's one thing to do a conformal rescaling mathematically. What do you mean

by that? The mathematical scale is interesting... : in an "almost-infinite" 3+3D space-time, we make an "almost-zero" locality = singularity $\infty \cdot 0 = 1 \cdot 1$ □ http://www.hypothesis-of-universe.com/docs/c/c_027.jpg so that we "pack" into the extreme curvature of the dimension and have an extremely dense foam "floating" in an infinite flat 3+3D space-time - what about you, Mrs. Sabina? I can't do math, so I help with logic → How does the inequality $1 \neq 2$ become an equality $10^{5500} + 1 = 10^{5500} + 2$. Understanding what that means physically is another matter entirely. You see, just because you can create an infinite sequence of aeons doesn't mean that the duration of any aeon is now finite. If you really want to, you can glue together infinitely many infinitely large space-times. Saying that time loses meaning doesn't really explain to me what this rescaling does physically.Okay, but maybe that's more of a philosophical concern. Here it is more specific.

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Cause and effect can only be debated in a situation where "time is running". And that only happened after the Big Bang. Before the Big Bang, time did not run. (!) Nevertheless, "there" must be the "cause", namely: why the Big Bang happened. (? !!) The Big Bang is a "jump change of state" of the previous flat infinite Euclidean space-time 3+3D without matter, without fields, without the flow of time, without expansion... to the state "after the Big Bang", when the opposite extreme occurred: spacetime is maximally curved in jumps (plasma = boiling vacuum of those dimensions, only those dimensions). And here 3+3D begins to unfold, i.e. the unfolding of time dimensions begins and we perceive this as the flow of time (we, material objects, then travel "through time = along the time dimension". Time does not run for us, but we run along it) . Creation occurs = genesis of material elements, unfolding of length dimensions. Simultaneously with the unpacking of the 3+3D plasma – the soup of crooked dimensions, local formations-elements are packed (!) into packages-balls made of those dimensions, and these are elementary particles of matter, produced by packing dimensions. So the global unwrapping and mini-unpacking of dimensions "runs" simultaneously, which is the production of matter and physical fields and... and also new and new laws are created that did not come into existence all at once with a big bang. The genesis of everything. The Big Bang was just a change in the state of curvature: from flat to curved. JN 25.11.2021
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These are two questions for you, the expert.
The question of dark matter.
why the stars in the arms of galaxies run slower than they should after inserting observation numbers into the law of gravity..., not least because you use the "correct" observation numbers and insert them into the "wrong Newton's law." **Fg = G.M.m /** x^2, where after "**x**" you substitute the distance between two bodies "as a straight line **x**", but in the reality of the universe according to OTR it is different: for Observers from a great distance the space-time inside the galaxy is already curved and it is necessary to substitute this line "**x**" in arc "**x**". Then the results are different and no dark matter is missing in the galaxy http://www.hypothesis-of-universe.com/docs/f/f_056.jpg ; http://www.hypothesis-of-universe.com/docs/aa/aa_031.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_439.jpg

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Telling HDV again and again. (23/03/2021).

Contemporary cosmologists write that our universe (followed at this time after the Big Bang) is **expanding**, even at an accelerated rate, and that only the space between galaxies is expanding, and that the future of this Universe will 'probably' be such that in the end the galaxies will be so far apart, that on the "scale of the whole", the entire universe, it will look like the universe is completely empty and ..and it still has some tiny "dots = galaxies" scattered terribly far from each other..., i.e. the scenario: we are left with The universe is just space-time, flat, non-curved, without matter, without fields ("without" OTR). And...and where there is no matter, there is no time either, (claims Kulhánek) and there is no expansion "anymore" because there is "nothing" to expand..... (*this was an excerpt from some of cosmologist Penrose's big crunch article*)

And...and now, Mr. Luboš, if you are still reading this, the state of the Universe that contemporary cosmologists describe, I hope you can understand (?) in the sense of non-phantasmagoria ??? Yes? (Nephantasmagoria are written by educated people who were not forcibly transported to a psychiatric hospital, as they tried to do with me). If so, then remember that I wrote you such a description of the "state of the Universe" (already empty, flat, matter "disappeared") that it was like this before the Big Bang: a flat 3+3 dimensional grid (or n+nD) infinite time-space, without matter, without fields, without the flow of time, without the expansion of length dimensions; exactly the kind that Penrose describes as being "at the end of the universe"; I wrote before Penrose that this is how the universe was before the big bang. (well, what would also expand, right, on that already infinite smoothed dimension grid, right ???). And...and...and suddenly this two-dimensional state of the Universe 3+3 D of space-time "**before the Bang**" (time does not flow here, infinite in space, i.e. the length-dimension does not expand (neither "normally", nor inflationally according to the cosmologist Gutha, who invented the "jump opening of space)) and...and in such a symmetrical state of the 3+3D Universe, which before the Bang "is-exists, infinitely" long, with infinite space, suddenly arises, or does not arise, but **occurs** the Big Bang,, which is a **jump change from the symmetrical pre-Bang state to the asymmetric post-Bang state**, i.e. to a state of extremely crooked dimensions. Space-time has crumpled, collapsed, tangled, coiled n-fold. It is the "opposite of the explosion", it is the "singularization" of the infinite 3+3D. From this chaotic distorted "primordial state" the principle of alternating symmetric with asymmetric states will apply to future changes of states, which is a *change* of the previous state ("inert" - neither fish nor crayfish) to the subsequent "post-Cod" state, in the first "second" " incredibly crooked "boiling" space-time = plasma.

So what happened? I repeat again: the previous state of space-time dimensions was infinite and flat,..., the subsequent state was-will be "singular point" "of infinitely curved" dimensions". That is: "Part" (*) before Třeskov's state is compacted in leaps and bounds to "after Bang´s" state ..., a singularity created "inside" the previous flat 3+3d state as a "locality": it is a "plasma" with "infinitely" curved dimensions, in which the "third quantity" matter, matter elements and fields, thus forces.... ; *time "suddenly" begins to run-flow, the singular space begins to expand*, the most elementary matter (quarks, gluons, leptons) begin to connect - assemble (the packed dimensions of the elements of "frozen" formations, connect, " they crawl" and creates baryons, then atoms, compounds, etc.. - - And here HDV begins: the singularity-plasma is bizarrely incredibly curved = crumpled space-time, i.e. it appears as n-dimensional "for" the quantities Time and Length. http://www.hypothesis-of-universe.com/docs/c/c_300.jpg The pre-bang state is flat, infinite...; the post-bang

plasma-foam location of boiling n-dimensions is then P L A V E in that pre-bang state np, which is just space-time without matter and without fields, and without the flow of the flow of that "time" that is "there", but only is and stands-exists,..only as a Quantity, not "as" the flow of time. In case b) the original grid did not disappear, but appeared change only "in the locality", in the singularity (our future Universe), which is geometrically distorted or recruits in it is "matter". After B.Bang (change of state of two-dimensional number one to another two-dimensional state) to non-flat state = opposite = terribly curved = plasma. "Boiling" vacuum, boiling space-time = initial state plasma in the singularity is nothing but "crumpled-twisted" - boiling foaming space-time and...and in it matter is "BIRTH"...; how ?, from what ???? but from two quantities and their dimensions as "balls-wave packets" of entangled-wrapped dimensions".., MATTER ARISES FROM SPACE-TIME, from two basic quantities "**x**" and "**t**"..., then the elements are compacted into more complex mass

I myself am fed up with the constant repetition of HDV: ideas about the creation - the construction of matter from space-time by "packing" dimensions. And also the fact that nobody reads it, for 20 years none of the qualified scientists have read it... or they don't understand it and they don't understand it. I don't understand why they don't. http://www.hypothesis-of-universe.com/docs/c/c_428.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_426.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_421.gif ; http://www.hypothesis-of-universe.com/docs/c/c_416.jpg
So again: The Pre-Bang Universe is a 3+3D flat infinite ...; guess how long an infinite straight line is. And how big the line segment is finite on this infinite straight line, guess. You probably guess by now that the "singularity" is arbitrarily large in that "infinity 3+3D"... it is no longer a "point" as physicists initially said, it is no longer even a tiny volume with a time of 10^{-35} s as initially Kulhánek also said, now even Kulhánek says that the Bang lasted 380,000 years and was quite a large location...; But let's go back again: After the Bang there was a jump curvature of dimensions 3+3 into the form of plasma = foam of dimensions, time could start by the fact that its "almost-infinite" curvature starts to unravel, unpack..., dtto space can start to expand when the curvature of dimensions starts to unpack, both spatio-temporal quantities *unpack* after the Bang, unpacking but... but it is and will be interesting that the initial "foam of dimensions" - plasma will simultaneously expand dimensions into the large-scale universe (intergalactic space, in which the galaxy "floats"), but also simultaneously collapse into those balls-wave bundles, geons, which in that foam "freeze" in their configuration position - they are already immutable "clones" (a proton is forever a proton, and so is every particle, unless it collides, which breaks it into quarks, etc.); then the more complex particles of the nucleus of atoms, etc., can "unfold into two balls, into more balls, up to the basic 25 elementary ones, which no longer change. (quarks, leptons, gluons). If we "break" them, then only the jets = shards.
Resume : the elements in which the dimensions are packed are compactified. It is matter. In that plasma of "boiling dimensions" = transforming curvatures, "stop-states" = geons = wavepackets are formed that have "frozen" in some crooked state of "their dimensions". (and be aware that there weren't that many of those initial wavepackets in that plasma.. The standard model of physics claims that only 6 quarks, 6 leptons, 4 intermediate particles, 8 gluons. higgs and...and...and that's it = the whole plasma = "boiling - curving dimensions in a singular simplicity-time." I think that the Universe did not have to work so hard to produce the elements of matter: it packed 26 wave packets and it was done. But: it was said that time passes after the Bang, time "unfolds" (that is, it flows, ticks, unfolds in one direction) (even the crumpled length

unwraps, expands in one direction from the singularity to the expanding space) "into a larger line" ..; only ... only matter, on the contrary, "shrinks" , conglomerates into atoms, molecules..dtto into stars and galaxies. Let me explain : geon = wavepacket is a formation in which even time "runs backwards"... what is that ? i.e. that it curves even more "inside geon" geon that "was born as a "stop-state" of some position of curvature, all particles, 26 pcs or how many "there were" in the beginning are "stop - states" (I don't know according to which choice or law or rule, that will be found out later) and these states are "clones" = they don't change!!!!! the electron is the same from the very beginning, its wave packet does not change (today's universe-space-time changes in locations, supernovae, the sun undergoes fusion storms, photosynthesis takes place on earth blah-blah, the terrible development of Everything, but the electron does not change even if the Universe shrinks rolled or expanded, or deformed around it using STR, or Heisenberg, tokamaks, etc., even in a vacuum the electron does not change in virtual pairs, not even on the "Planck scales" simply: it is a Clone, it has its "set" curved state of dimensions that wavepacket. So: After the Big Bang, the cp is unpacked, but it is packed into matter = elements, the "first genesis" is packed and thus protons, neutrons, then atoms, then molecules, etc. are produced, conglomeration occurs ... but not only at the level approx. 10^{-27} m (atom, molecule) but the conglomeration is also on the "Global level" of the star-galaxy versus global space-time...

JN 23.03.2021 (I will gradually improve and refine the text)
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I have been thinking for a long time (at least 30 years) about how to physically understand "multidimensional" time and space-time. This is simply not taken by natural experience, nor by a relaxed imagination. Only recently has it begun to dawn on me: The universe in three dimensions of length is trivially comprehensible. The universe into three dimensions of length (space) and one dimension of time (space-time) is already somehow comprehensible... even if our brain does not understand how the fourth dimension can be "perpendicular" to the longitudinal ones, which are also perpendicular to each other... but in the end even this "mathematical representation" was "managed" by mathematicians into "four vectors". We are (of course) still (still) moving "in geometry", and with the fourth dimension still somehow in "rotten" geometry...but we are still in the "intentions" of geometry.
Physics enters "the scenery of the Universe" 3+1 by "into the geometry, i.e. into *the "four-geometry"* ***x,y,z,t*** by inserting "extra" **matter** (matter with its connected "techtle-mechtles" with that space-time - as there are fields, and some other "states", plasma, etc. Nevertheless, it is still like this: "time-geometry-mass-dynamics" (a wonderful word, isn't it?, for the Guinness book); even so, it is visible and understandable , but..., *but, but: how to logically and abstractly pronounce and manage the multidimensional (many-multidimensional) Universe ???*.. I couldn't sleep for 30 years, I pondered,.. and I'm already getting a picture that such a vision I have "my fragmentary knowledge" :
= The first progressive step **01)** is that the space-time continuum is not 3+1D, but must be realistically 3+3D..., against which the Ignorants spit, but against which the experts are silent ... they are silent because they are not sure, and they would not like to they scolded if they said their "suspects" out loud... !
= It follows another logical progressive step **02)** (to the 3+3D space-time) that those higher dimensions "do not live" in a "geometric" state, state, but in a "mathematical" state (!)...;Dimensions above 3+3 do not "fit" into geometry (mathematical geometry), which of course does not mean that they do not exist. **(!)**And therein lies the **logical-abstract nut** : how
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to imagine such extra-dimensions around us "in our 3+1 (thus 3+3) dimensional space-time"?, with some "necessarily" used needing (scooped) **four-vectors** ???? The universe doesn't need them, physicists do …; So how to "revive" multidimensional reality (the real REALITY of the universe)? This is an insurmountable wall of thought for the "human" brain, ..."There is *no problem* in n-dimensional mathematics", but how to """"connect"""" geometric reality with mathematical reality ???, right? That's a problem!!
It only recently dawned on me in makovica-in kebula, when I noticed the concept of "nesting diagrams" among Opava physicists - step **03)** and...and it clicked to me that there is a way that...that : multidimensional hybrid state (y) curved (and non-curved) dimensions of time → (*timeor*) and dimensions of space → *spaceor* (in the form of conglomerated wave packets), **describable** by *relatively simple **mathematics***, that they co-exist, that...that in each other " they float" - that these "higher numbers of dimensions" are enclosed in multidimensional conglomerates in matter, that they are "nested" **in a geometric 3+3D space-time**, simply crooked, more crooked states are multi-dimensional and "realize" on a spatio-temporal Euclidean flat scene, grid, grid, 3+3D platform. Multidimensional states "float" in lower dimensional states, they are "nested" in them. E.g. : even the "boiling vacuum" (which is a dynamic chaos of crooked dimensions) **s i m p l y** floats in the "underlying Euclidean 3+3D stage" ...; all states of matter realized **from multidimensional, i.e. "more curved dimensions**" (mathematically simply describable) "float in a non-curved geometric 3+3 system of non-curved dimensions, or a less curved grid, which will be a "physical field"..., how simple, Sherlock, ..., only this is how one can "understand" the "world of physics" (matter in curved space-time) and the physical one inserted = nested "into mathematics", which "takes on" for its processing of non-Euclidean reality "curved length and curved time dimensions to describe the elements of matter - Standard model.; etc. http://www.hypothesis-of-universe.com/docs/aa/aa_078.pdf ; http://www.hypothesis-of-universe.com/index.php?nav=e ; I can't say it better, I'll leave the interpretation better to the smarter ones.
Here could be step **04)** revolution of thinking "into a new vision of the Universe"...ie. , that **:**
The universe up to three dimensions of two quantities is geometric and... and above three dimensions it is mathematical.

November 3, 2018 18:17:18 + modified 07/15/2022

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In "this" Universe, genesis takes place from "many crooked states of np dimensions to little crooked states of np dimensions" in the style of unwrapping - not the Huble expansion of the universe. But...but !!!, the universe, i.e. space-time, is not only being unwrapped into large-scale structures, but """"simultaneously"""" with it, it is also wrapped up - coiled up, i.e. wrapped into "conglomerates", i.e. at every historical stage will create "new types of conglomerates"... I'll explain it like this: after the Big Bang, elementary particles (mainly quarks and leptons, etc.) are created in the plasma of "small dimensions" and as geons = wave packets, this is the "first type of conglomeration". Another type of conglomeration will be "packing geons" into baryons, mesons, etc.; the next type of conglomeration will be compactification into atoms..., the next, in parallel with the production of heavy elements, will be conglomeration into stars,.., we already have two branches of simultaneous conglomerations, and during this "clustering = shrinking of dimensions" in "free gravitational curved space-time this one unpacks itself. In other words, the unfolding of space-time dimensions and the unfolding of space-time are running simultaneously... that's why today we humans observe both, happenings on the Planck scales and happenings in the macrocosm
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and... and even we humans are sort of "in the middle" of that size scale http://www.hypothesis-of-universe.com/docs/c/c_017.jpg ; and...and it's not even a coincidence! Mr. Vl. once told me. Wagner in the correspondence that the Universe expands from those Planck scales upwards...well, I wouldn't bet much on it: maybe from our "human sizes" the microworld is getting smaller and the macroworld is getting bigger, which is/will only be a "sitting" effect Observer. Reply 2019-10-03 12:01:01
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PT Newspaper Editor : What inspired you to write a book about time?

Carlo ROVELLI answers : To work in quantum gravity, one must face questions about **the nature of time.**

Me in purple : So..., above all, TIME is the least researched "thing" of all the "things" in the world, it is the least researched physical quantity. ((Professors like Kulhánek only know about her that she ***runs***...nothing more)).
First: "what is time"? Time is a physical **phenomenon** of this world, the Universe, which is even more than a physical **quantity** - see: http://www.hypothesis-of-universe.com/docs/c/c_300.jpg . Time - phenomenon/quantity also has three basic dimensions like space, (!) so we will say: "time"- 3D and "space"- 3D.
The universe would have no meaning without space-time..., which is exactly the opposite of what Prof. Kulhánek : without matter there is no space-time, matter produces the so-called space-time.
Using the phenomenon of "**Time**" and "**Length**", the Universe builds a basic 3+3 grid-yarn-net --> , that is, a 3+3D space-time in which our Universe will "swim". (To this day, no one has investigated whether the Time-quantity also has dimensions, or why it must not have them !!). This **basic** state of space-time "stands still" (like the state before the Bang), there is no matter in it, it is inert in everything, infinite, time does not flow here, the length dimensions do not expand here. Time flows until after the Bang, after *there is* a change from the pre-Bang state to the post-Bang space-time state.
The 3+3D flat state (before the Bang) changes (according to the principle of alternating symmetries with asymmetries) to the state after the Bang, i.e. there **will** be a change in the infinite flat state of space-time "in a finite location" (it was recently called a singularity) and in this l o c a t i o n to "maximum warping of dimensions" 3+3D space-time ; we will perceive this locality (in the middle of the infinite flatness of the pre-Fang) as "our Universe" and the first state will be dimensional foam, the state of boiling vacuum = plasma.
Only from this moment-position **time begins to pass, because the "time dimension" "unfolds", the curvature of all three time dimensions unfolds! ! !,** each differently**, exceptionally each just like on Earth in the stop-state "today". (dtto the space expands ... which is **supposed** to be expanded first by "inflation" - rapid "inflating"...; er, what? "what is being inflated and where? *Supposedly* new points=intervals of space in the "spatial grid" by "blowing it up. (but no new intervals were created on the time dimensions...?!)
The curved location 3+3D finite (our Universe) "floats" in the non-curved grid-grid 3+3D infinite, then the unfolding of time dimensions begins here and we perceive this as the flow of time. In stop-states from Třesk, the ratio of the unfolded dimensions of length to time is not the same everywhere. This means that the "point" in the unfolding space-time moves **v < c** ; i.e. $\mathbf{v^3 < c^3 = 1^3\ m^3 / 1^3 s^3}$ .A point from the curved space-time moves in the non-curvature of the space-time grid.
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So it can also be said that time does not flow to us, but we - the material object - flow to it, we flow = we move through time - along the time dimension and... and thus we cut off time intervals on the "standing" time dimension... No one has yet proven, that the rate of the passage of time is still the same from the Big Bang to today, that it is therefore universal for every place in the universe....No one has yet proven that the pace of flow time is still the same from the Big Bang to today, so it is universal for every place in the universe. No one has proven that **$t_1 = t_2 = t_3$** applies on Earth and that **$t_1 = t_2 < t_3$** can also apply on Earth, ... which is commonly shown in STR when time dilates only in the direction of movement of the body away from us. (by the way: the curvature of time dimensions **$x / (t_1 . t_2)$** then manifests itself as gravity).
The 3+3D space-time grid (before the Bang and after the Bang) is flat and infinite. Then, after the Bang, the crooked states of 3+3D --> fields and arbitrary assemblies of matter float in it and interact as "intertwined" packages from the tangled dimensions of space-time. In my opinion, "the dimension of time stands still" (flat in that basic grid) and we run "along it", along the time dimension, along the length dimension... (time also "stands still" on the photon, i.e. the photon "flies" at the same speed as expands space-time, i.e. both time and space "stand" in relation to the photon as it stands in relation to space-time, ..etc. etc.) Other descriptions are elsewhere.

Answered by Carlo ROVELLI : General relativity tells us that the time between two events is determined by gravity, here on Earth. I am not sure if also in interstellar space or intergalactic space the time-interval between two events is determined by gravity ???! In every historical period since the Big Bang, global gravity has been different, so that the statement *that time = rate of passage of time is determined by gravity would also apply?? ?* I slightly doubt this and therefore time is affected by the quantum behavior of gravity. There can be quantum superpositions of different temporal states. ?? what-what "time states" are something independent of matter and gravity and others?..shouldn't we have been talking about the "pace of time"? in different states of space-time curvature and different mass-field distribution density ?? A clock can be in a quantum superposition of two different times. A clock is not - a clock is not "time", a clock is a mechanism that MUST tick off some equal chosen time intervals. So all my scientific life I have been thinking (me too, Mr. Rovelli) about the nature of time (me too, Mr. Rovelli) and the many problems it brings. I thought it was time to try and connect the dots and write what I think we do and don't understand about time.
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Answer: Could there be extra time dimensions?

David Gross gross@kitp.ucsb.edu ;

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16. 7. 2010
Time is one of the most mysterious aspects of our theoretical framework, and you know the first person I know of who wrote an interesting paper about the possibility of extra dimensions
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of time was **Andrei Sakharov**. This was before string theory, but the other dimensions of time go back to **Kaluza** and **Klein** in the 1920s and everyone thought about it, including **Zec**, it has problems, ((The Universe doesn't have problems, but human-physicists have problems understanding "why " there should be extra dimensions of time. 3+1D space-time is enough for people... but until they understand the idea of HDV, i.e. that we need extra dimensions to understand the "genesis of matter", not "from strings from Nothing", but just from those packed three dimensions of time and lengths 3+3D.)) http://www.hypothesis-of-universe.com/docs/c/c_426.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_421.gif ; http://www.hypothesis-of-universe.com/docs/c/c_416.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_415.gif ; http://www.hypothesis-of-universe.com/docs/c/c_411.jpg ; http://www.hypothesis-of-universe.com/docs/c/c_358.jpg . 3+1 D space-time is still enough for physicists today, because they are still captive to the idea of "scalar omnidirectional time". **Why ?** Because here on Earth we do not observe that time runs **at different rates** in three axes... We observe "practically" the same time $\mathbf{t = t_1 = t_2 = t_3}$, e.g. one hour → $\mathbf{t_1}$ = 3600.0000000**32** seconds ; $\mathbf{t_2}$ = 3600.000000**30** sec. ; $\mathbf{t_3}$ = 3600.000000**30** sec. (I made up the number **32** or **30** for interpretation), although we know that in many physical situations of "uniform and uneven motion, energy changes", etc., the passage of time is different, e.g. t_1 = 3600.000000**36** seconds ; t_2 = 3600.000000**30** sec. ; t_3 = 3600.000000**30** sec. And we also hardly mind the fact that the pace is slightly different in each direction, because the difference is only in eighth place.

Therefore, the "scalar" "t" is enough for us. And also the globe is "placed in space-time so skillfully" that the pace of the passage of time is **almost the same** in all three components - dimensions, or the differences are in order of magnitude up to the eighth place after the decimal point. $\mathbf{c = 10^8/10^0}$; A human being is eight orders of magnitude more sensitive to the perception ***of length intervals*** than ***time intervals***. If a ferrari car drives around the autodrome, we will perceive its movement (along the "x" line), i.e. speed $\mathbf{v_1 = x_1/t_1 = 250}$ **km/h. = 250,000m / 3600 sec.** And the ferrari movement rewritten into the components of the 3+3 dimensional grid, the measurement of the size of the dimensions will be written --> **x** = 250,000m ; **y** = 0 m ; **z** = 0m (but beware, the globe is round, so it will be more precisely **x** = **250000**,0m; **y** = 0.0000000**2**m; **z** = 0.0000000**3**m...) (but beware, the globe is round, so it will be more precisely x = 250000.0m; y = 0.00000002m; z = 0.00000003m..., we practically neglect these small values for **y** and **z**); dtto with time t_1 ; t_2 ; t_3 ; after measurement are: t1 = 3600.000000**36** seconds; t_2 = 3600.000000**30** sec. ; t_3 = 3600.0000000**30** sec. (I made up the number 36 or 30 for interpretation) . That is, in the $\mathbf{x, y, z, t_1, t_2, t_3}$ coordinate system, we measure changes only in the **x** and $\mathbf{t_1}$ axes.

If a ferrari turned into a space rocket that increases speed up to...up to **v = 0.8c** .., that would be a different situation ((examples are here http://www.ktf.upol.cz/joch/priklady/dilatacep.html ; https://www.walter-fendt.de/html5/phcz/timedilation_cz.htm and there are also elsewhere)) ..., then according to STR, time would dilate on the rocket, of course !!!! it would dilate in the 3+3D system **only in the direction of movement !!!!**, i.e. $\mathbf{t_1}$ **= 9.0 sec.** $\mathbf{t_2}$ **= 500.0 sec. ;** $\mathbf{t_3}$ **= 500.0 sec**. This is not perceived by the missile commander, but is perceived by the Observer from the basic system, and only for the reason that the signal-information arrived "rotated", that is, it flew through a distorted space-time. That's why we sense that STR dilation here on Earth as "dilation", but there is no dilation on the rocket, there is still $\mathbf{t = t_1 = t_2 = t_3}$.
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Our Universe, which is the only one, is a location in a Euclidean flat infinite 3+3D space-time, a finite location that begins with that Bang, (which is not an explosion but a change from the previous state to the subsequent one) into the state of plasma, which is ultra high
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curvature, it is boiling the vacuum is a foam of dimensions; **it is a finite location in an infinite flat time-space that "floats" in that basic Euclidean net - grid, a yarn of non-curved dimensions.** We still have this basic "net-yarn-grid" in the state before the big-bang, not only before the big-bang but also after it, it is around us, and... and we and the whole complex universe with galaxies and CDs and gravitational fields, swim in that flat network of 3+3D space-time. The beautiful thing is that even a mathematician will be amazed if he does not have to investigate "how big is the "Location-our Universe" and will have to admit that in an infinite non-curved space-time the finite location is arbitrarily large, it is almost infinite and almost-zero …and yet it is “our Universe”…only one. The Big Bang was not the creation of the Universe from nothing, but it was a "leap-leap = change of state" of the previous to the subsequent .., the pre-Bang state of flat dimensions changed-jumped suddenly to a location with extremely crooked dimensions, which 13.8 billion years they unfold in the global "real structure" and collapse in the microstructure into conglomerates of chemical-biological compounds and on sub-Planckian scales up to the foaming state No. Etc. Etc... Etc. as I have described elsewhere for many years.

According to Di Valentino's team, this anomaly could be explained if the universe had a spherical shape. Which is the same, if not better, if the expansion is explained by the "unpacking" of the "starting" curvature in Třesk; this state of space-time of ultra-high curvature of time and length dimensions is plasma, a state of post-Flash plasma foam. In this foam, mini-localities = "frozen states" are recruited - wave balls-wave packets, which in our human concept become elementary particles. (each particle has a different number of dimensions and different curvatures of these; this determines their properties). Then such an initial state of the Universe after the Big Bang further expands and simultaneously collapses, unfolds "out" and collapses "inward-still", i.e. a clustering of elements (mass particles such as quarks, leptons, then into baryons, resonances, then into atoms, etc.) to molecules to compounds - that's it, the "packing" of crooked packages into more complex conglomerates, and that's happening not only after the Big Bang, but packing is happening even today, (even today we have a Planck vacuum around us) continuously throughout the entire history of this Universe.. , all around us in the seething vacuum of the Planck and sub-Planck scales, the same processes are happening as they were a million years ago, a billion years ago, and 14.24 billion years ago right after the Big Bang. This whole "Local Universe is embedded in a 3+3D grid, a network of dimensions flat Euclidean ones, the universe "swims" in an infinite flat number. And at the same time, since the Bang, the unpacking...and the unpacking has been going on. I don't know what type, type of curve/curves, the unpacking into a global version is, and I thought it was already 35 years ago ety, that this unfolding is parabolic..., it means that the Universe is expanding, sorry, unfolding not only after the Big Bang and the era of relic radiation, but still, to this day, all around us (gravitational curvature is still around, unexpanded, other curvatures čp electromagnetic, etc. are still common here..., only the "most global space-time field 3+3D is the most expanded and it is immeasurable how much-little the curvature approaches absolute flatness-straightness. - - So, if the various anomalies and oddities from the universe explain to the scientists from the British Manchester University their idea "with a sphere-universe", **then why couldn't** another shape of the Universe, i.e. **my descriptions of the unfolding of the initial curvatures of the np dimensions to today's curvatures, also be an "explanatory possibility" ?** It even seems to me that these scientists have learned about my HDV thoughts, .. I have been presenting them for a long time.

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Dear reader, if you have read this far, then I have no doubt that you already understand my vision of HDV. It was a tireless, terribly tireless fight against the inattention of scientists... it was a great suffering to repeat the same idea over and over again in variations just so that I would hit it by chance that someone would look at HDV with one eye. After there are people who understand HDV and put their heads together, then the improvement of the HDV vision will go like clockwork.

31.07.2022