https://www.youtube.com/watch?v=eOvqJwgY8ow

Is string theory a failing model? | Eric Weinstein and Brian Greene go head to head again

Je teorie strun selhávajícím modelem? | Eric Weinstein a Brian Greene jdou znovu proti sobě

Is string theory a failing model? | Eric Weinstein and Brian Greene go
to head again

0:00

(01)- Foreign in fact if you run through the inventory of the most successful ideas of the last 50 years in physics almost all of them have a natural home within String Theory what Brian talks about is a string theory sort of self-invalidated in the early 2000s people will continue to work on any given subject so long as it continues to bear fruit and give interesting results that Inspire yet other avenues of research and that's what's happened in string theory and that's why people have continued to work on it and when the theory and the ideas begin to dry up and they're no longer bearing fruit then individuals will move on and certainly some string theorists of the past have moved on to other ideas because they lost interest in this or that Avenue of research the fact is is that string theorists will always tell you that if the better Theory came along that they would immediately move to it but when you ask them about whether they've looked at their colleagues theories if I ask Brian for example how in depth have you looked at Peter White's assertion that you should start from the Oddity of su3 go back to su4 and look at a twister Theory which includes Wick rotation at a fundamental level I don't think Peter White's theory is correct but at least I've looked at it very often the string theorists will tell you that they have no time so what you start to understand is is that there is a very easy set of behaviors in in an Equanimity that the string theorists appear to have that is not realized except in the breach so the problem that we usually confront is is that this Theory plays by sociological and and economically different rules um if you say for example that there's no experimental test of string theory yet many string theorists told us exactly where we would find relatively low energy supersymmetry at the LHC which failed to materialize and so you can play infinitely the the energy the energy dog ate my energy homework the particles are never found if you push string theorists hard enough they will say well it's

actually not a theory but a framework when I pushed Joe polczynski of blessed memory on this point he said Eric you treat String Theory as it's a as if it was a theory when I think we're just running subroutines for Ed being Edwinton it's a very strange game and not at all how science is played so I believe that Brian is making a better Point than Roger no offense but I believe that the point is actually that you're playing keep away according to rules that always favor String Theory it's like why you don't win in Vegas it's because the house is always taking it's it's Vig and you can't possibly win and so the problem here is that what sounds reasonable is reasonable at the first level but then you know I would ask Brian um you know what do you think about my explanation for why there are three generations of flavor chiroparticles I doubt you probably even know that I have an explanation and it might be wrong I'm not afraid of being wrong but my feeling is I've studied your work I've studied your books your PBS specials and there is no reciprocal interest because this community secretly thinks that it is smarter than the other communities and in general this is in fact true I'm not arguing it what I am claiming is that that level of intelligence has been misspent and it has been directed by a tiny number of individuals string theory is not in some sense dominant at the moment but the the pig went through the pythons in the 80s there were a huge uh number of jobs many of us were critical at the time I moved into mathematics to avoid this thing and in fact what happened is that that Pig is working its way through the python as an affirmative action program for Boomers and Silent generation academicians who are exceedingly good at mathematics but seemingly not so good at physics and I do of course remember the period you're referring to Eric back in the 80s and I do feel bad that some wonderful mathematicians and physicists who were not working on string theory found it difficult to get jobs and to get post-docs I remember talking to Peter white back in the 80s I gave a talk at Stony Brook and he was working on some very interesting stuff but the jobs weren't materializing in a way that perhaps he deserved and it wasn't happening and the problem is it's a finite resource I wish we would just take half of the budget from the defense departments around the world and turn those into academic jobs for physicists mathematicians poets literature specialist language but I mean that's really where the culprit is a main brain but the problem is is that the the invective that was leveled from your community towards the other communities is the part that's ignored so that's the part Eric that that I'm I was there and again I wasn't in every room
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(01)- Ve skutečnosti je cizí, když si projdete soupisem nejúspěšnějších myšlenek ve fyzice za posledních 50 let, téměř všechny mají přirozený domov v teorii strun, o čem Brian mluví, je teorie strun, která je svým způsobem zneplatněna v lidé z počátku 21. století budou pokračovat v práci na jakémkoli daném tématu, pokud bude nadále přinášet ovoce a poskytovat zajímavé výsledky, teoretické, tedy hypotetické které inspirují další směry výzkumu, a to se stalo v teorii strun, a proto na tom lidé nadále pracovali a kdy teorie a myšlenky začnou vysychat a již nepřinášejí ovoce, pak se jednotlivci přesunou dál a někteří teoretici strun z minulosti určitě přešli k jiným myšlenkám, škoda, že si nepřečetli HDV protože ztratili zájem o tu či onu třídu výzkumu, je, že teoretici strun vám vždy **řeknou, že kdyby se objevila lepší teorie, okamžitě by na ni přešli,** a přitom já jí ukazuji už 22 let na internetu. Nikdo nemá uši, oči a mozek…ale když se jich zeptáte, zda se podívali na teorie svých kolegů, když se zeptám například Briana, jak do hloubky jste se na to podívali Tvrzení **Petera Whitea**, že byste měli začít od Oddity of su3,**?** vraťte se k su4 **?** a podívejte se na teorii twisterů, která na základní úrovni zahrnuje rotaci **Wicka**, nemyslím si, že teorie Petera Whitea je správná, ale alespoň jsem se na ni velmi podíval teoretici strun vám často řeknou,

že nemají čas, takže to, co začnete chápat, je, že v Rovnoměrnosti ? existuje velmi snadná sada chování, které, jak se zdá, teoretici strun mají a které si neuvědomují, s výjimkou porušení, takže problém, se kterým se obvykle setkáváme, je ten, že tato teorie hraje podle sociologických a ekonomicky odlišných pravidel um, pokud například řeknete, že neexistuje žádný experimentální test teorie strun, přesto nám mnoho teoretiků strun kontruje a přesně řekne, kde bychom našli relativně nízkou energetickou supersymetrii na LHC které se nepodařilo zhmotnit, a tak můžete hrát donekonečna na energii, kterou energetický pes sežral můj domácí úkol, částice se nikdy nenajdou, když na teoretiky strun dostatečně zatlačíte, řeknou dobře, že to vlastně není teorie, ale rámec, když jsem tlačil **Joe Polczynski** z blahé paměti v tomto bodě řekl **Eric**, že s Teorií strun zacházíš jako s teorií, když si myslím, že jen spouštíme podprogramy, protože Ed je Edwinton, je to velmi zvláštní hra a vůbec ne, jak se hraje věda, takže věřím že Brian dělá lepší Point než Roger, ?? bez urážky, Penrose sedí mezi diskutujícími ale věřím, že ve skutečnosti jde o to, že hrajete, držte se stranou podle pravidel, která vždy upřednostňují teorii strun, je to jako důvod, proč ve Vegas nevyhrajete, protože dům je vždy když to vezmeš, je to Vig a nemůžeš vyhrát, takže problém je v tom, že to, co zní rozumně, je na první úrovni rozumné, ale pak víš, zeptal bych se Briana um, víš, co si myslíš o mém vysvětlení, proč jsou tři generace chuťových chiročástic Pochybuji, že pravděpodobně vůbec víte, že mám vysvětlení a mohlo by být špatné. Nebojím se, že se mýlím, ale mám pocit, že jsem studoval vaši práci, studoval jsem vaše knihy, vaše speciály PBS a existuje žádný vzájemný zájem, protože tato komunita si tajně myslí, že je chytřejší než ostatní komunity, a obecně je to ve skutečnosti pravda. Netvrdím, že tato úroveň inteligence byla zneužita a byla řízena malý počet jednotlivců. Teorie strun není v současné době v jistém smyslu dominantní, ale prase prošlo krajtami v 80. letech tam bylo obrovské množství pracovních míst, mnoho z nás bylo kritických v době, kdy jsem přešel na matematiku, abychom se této věci vyhnuli a ve skutečnosti to, co se stalo, je, že to Prase se propracovává pythonem jako program pozitivní akce pro akademiky Boomers a Silent generation, kteří jsou mimořádně dobří v matematice, ale zdánlivě ne tak dobří ve fyzice, a samozřejmě si pamatuji dobu, kterou jste' zmiňuji se o Ericovi v 80. letech a cítím se špatně, že někteří báječní matematici a fyzici, kteří nepracovali na teorii strun, měli problém získat práci a získat post-doktorandy. Pamatuji si, jak jsem v 80. letech mluvil s **Peterem Whitem**. přednášku ve **Stony Brooku** a pracoval na několika velmi zajímavých věcech, ale práce se nerealizovaly způsobem, který by si možná zasloužil, a nedělo se to a problém je v tom, že je to omezený zdroj. Přál bych si, abychom vzali jen polovinu rozpočet z ministerstev obrany po celém světě a přeměnit je na akademické práce pro fyziky matematiky básníky specialisty na literaturu jazyk, ale myslím tím, že viník je skutečně hlavním mozkem, ale problém je v tom, že invektiva, která byla směřována z vaší komunity směrem ostatní komunity jsou ta část, která je ignorována, takže to je ta část, Eric, že to jsem byl, jsem tam a zase jsem nebyl v každé místnosti

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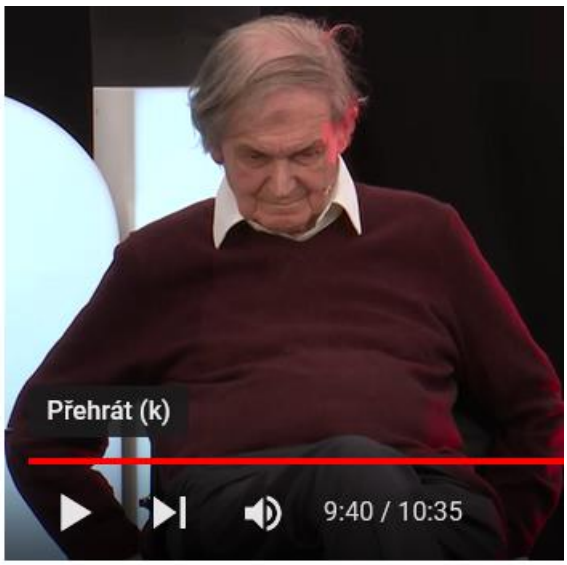
(02)- so I I certainly and can't claim to say that that didn't happen if you were the recipient of that kind of invective I will apologize on on the part of the community because that's never anything always been you've always been the most decent of string theorists but no as you can see I have no problem agreeing with Brian when he's right and he's often right the problem is is that Brian is not representative of a community that refers to others as morons as idiots as wasting their time as uh not really physicists etc etc ask any postdoc who passed through Stanford during its period of Maximum Euphoria for string theory people come out very

broken and angry I remember David Kaplan giving an interview David E Kaplan because there are two of them where he said it took him a long time to realize that he wasn't an idiot because he couldn't understand what was being done and was being told that he was somehow mentally deficient there was a real problem there continues to be a real problem Michio Kaku just said put up or shut up I'm not aware of Michio kako putting up much of anything I've put something up and the guy will not be quiet I mean it's some level this is an extremely aggressive belligerent community and unfortunately we have the most kind and decent exponent of it so I'm I welcome any discussion with Brian Greene because it's fantastic obviously a large community of thousand researchers is going to have a big bell curve of those who are able to play well with others and those who don't uh I've been called by some people in the field at various times it's an unpleasant thing to have happen and it isn't the way people should talk to each other so I'm glad that we totally agree on that getting back to sort of the um the physics side of things um I wish and and you know I'm gonna Echo have already made reference to but I'm saying it in a sincere way I truly wish I had enough time to investigate the various ideas and theories that are mailed to me sent to me put in front of me and the problem is very hard to carve out the time to investigate Theory after Theory after Theory especially when I don't even have time to keep up with the rapid pace of development within String Theory proper itself so it's not it's not let me just let me just finish one point it's really not that I have no interest in other ideas and other approaches and I would say that that's pretty much true of many of my colleagues as well the the problem is it takes so much effort and time to even understand the language sometimes in which other theories are described or to go through manuscripts of dozens 50 60 pages of calculations it could take weeks and months to really get to the bottom of it and that's really what the problem is so what I would say is by no means am I going to Echo Michio kako's put up or shut up because that's as you said that's not sort of my frame but if another theory came along and did say what String Theory did for understanding of general relativity and quantum mechanics which is where the interest came from it solved a problem that that nobody had any idea how to solve before and it did it in a in an understandable and manifest way that you didn't have to work very hard to understand the progress and you could jump in at the ground floor and run with it if there's a way even of your theory being put forward in a way that says here's the problem that I've solved here's the way it's consistent with everything that's come before here's the advance it's going to give and all you need to do is understand these three ideas yeah I would be open to learning about it so absolutely okay so first of all appreciate it uh I appreciate the sentiment uh what you're saying is that string theory solves a problem interior to quantum gravity which really originates around 1952-53 with Bryce DeWitt my feeling about this is if space-time is in fact doomed as is fashionable to say it's not clear that the way of harmonizing gravity and the standard model is to force gravity into submission into a Quantum regime it may be that in a not in a post space-time construct harmonizing gravity rather than quantizing it is important and what happens with the string theorists is that they very frequently say we've come closer to a quantum theory of gravity when you get to that point please give us a ring and some of us are saying you actually haven't made the case for quantum gravity which has been 70 years trying to ship a product and failing to continue watching this video click
10:21
the link in the top left or in the
……..

(02)- takže já rozhodně a nemohu tvrdit, že bych mohl říci, že se to nestalo, pokud jste byli příjemcem takového druhu invektivy, omluvím se ze strany komunity, protože to nikdy nebylo nic, vždy jste byli vždy byl nejslušnější ze strunových teoretiků, ale ne, jak vidíte, nemám problém souhlasit s Brianem, když má pravdu a často má pravdu, problém je v tom, že Brian není představitelem komunity, která o ostatních mluví jako o hlupácích a idiotech jako o plýtvání času, protože ve skutečnosti nejsou fyzici atd. atd. Zeptejte se kteréhokoli postdoktora, který prošel Stanfordem během období maximální euforie, na teorii strun, lidé vycházejí velmi zlomení a naštvaní. Vzpomínám si, že **David Kaplan** poskytl rozhovor David E Kaplan, dkaplan@pha.jhu.edu ,protože jsou dva z nich, kde řekl trvalo mu dlouho, než si uvědomil, že není idiot, protože nerozuměl tomu, co se děje, a bylo mu řečeno, že je nějak duševně nedostatečný, existuje skutečný problém, stále existuje skutečný problém, **Michio Kaku** řekl drž nebo drž hubu Nejsem si vědom toho, že by Michio Kako vystavoval moc čehokoli. Něco jsem dal a ten chlap nebude zticha. Myslím, že je to na určité úrovni, je to extrémně agresivní agresivní komunita a bohužel máme nejvíce laskavý a slušný představitel, takže vítám jakoukoli diskusi s Brianem Greenem, protože je to fantastické, zjevně velká komunita tisíců výzkumníků bude mít velkou zvonovou křivku těch, kteří jsou schopni hrát dobře s ostatními, a těch, kteří to neumí. V různých dobách mi volali někteří lidé z oboru, je to nepříjemná věc, která se stala a není to způsob, jakým by spolu lidé měli mluvit, takže jsem rád, že se naprosto shodneme na tom, tak trochu fyzikální stránka věcí, přeji si a a víte, že budu Echo, na kterou se již zmínil, ale říkám to upřímně, **opravdu si přeji**, abych měl dost času na prozkoumání různých nápadů a teorií které jsou mi zaslány poštou, položí se přede mě a problém je velmi těžké vybojovat si čas na prozkoumání teorie za teorií za teorií, zvláště když ani nemám čas držet krok s rychlým tempem vývoje uvnitř. Teorie strun sama o sobě, takže ne, nenech mě dokončit jeden bod, opravdu ne, že bych se nezajímal o jiné nápady a jiné přístupy, a řekl bych, že to do značné míry platí i pro mnoho mých kolegů. problém je v tom, že to vyžaduje tolik úsilí a času, než vůbec někdy porozumět jazyku, ve kterém jsou popisovány jiné teorie, nebo projít rukopisy o desítkách 50 60 stranách výpočtů, může to trvat týdny a měsíce, než se tomu skutečně podaří přijít na kloub, a to je opravdu v čem je problém, takže to, co bych řekl, v žádném případě nechodím do **Echo Michio Kako's** zticha nebo zticha, protože jak jste řekl, není to tak trochu můj rámec, ale kdyby se objevila další teorie a řekla, co pro to udělala teorie strun pochopení obecné teorie relativity a kvantové mechaniky, z čehož vycházel zájem, vyřešilo problém, který nikdo předtím neměl tušení, jak vyřešit, a udělalo to srozumitelným a zjevným způsobem, že jste nemuseli tvrdě pracovat abyste pochopili pokrok a mohli byste skočit do přízemí a běžet s ním, pokud existuje způsob, jak dokonce vaši teorii předložit způsobem, který říká, že tady je problém, který jsem vyřešil zde, je způsob, jak je v souladu se vším, co přišlo než tady bude záloha, kterou to dá, a vše, co musíte udělat, je porozumět těmto třem myšlenkám ano, byl bych otevřený tomu, abych se o tom dozvěděl teorie strun řeší problém uvnitř kvantové gravitace, ? který skutečně vznikl kolem roku 1952-53 s **Brycem DeWittem**, můj pocit z toho je, **že časoprostor je ve skutečnosti odsouzen k záhubě,** jak je módní říkat, že není jasné, že způsob harmonizace gravitace a standardního modelu je vynutit gravitaci, aby se podřídila kvantovému režimu, může se stát, že v konstrukci, která není v postčasoprostorovém konstruktu, je důležité gravitaci spíše harmonizovat než ji kvantovat, a teoretikům strun je to, že velmi často říkají, že jsme se přiblížili ke kvantové teorii gravitace, fuj, jsem proti
Is Quantum Mechanics or General Relativity More Fundamental? ??

Both QM and OTR live side by side and cannot be merged. QM is linear, OTR is non-linear. QM as a circle **x^2 + y^2 = r^2** ...; STR as a parabola **x^2 + 2py = 0**. How does mathematics do it to change a circle into a parabola?

Až se dostanete do tohoto bodu, zavolejte nám, prosím, a někteří z nás říkají, že jste ve skutečnosti neobhajovali kvantovou gravitaci, která se 70 let snažila dodávat produkt a nesledovala to kliknutí na video
10:21
odkaz v levém horním rohu nebo v



Is string theory a failing model? | to head again

Roger Penrose je smutný a zamyšlený nad rozpadem astrofyzikální vědy, nad nárůstem rozporů a nezdarů. →
← Roger Penrose is sad and pensive over the disintegration of astrophysical science, over the increase of contradictions and failures

Please think of a new idea

"Our universe", after the big bang, is a "local place" in Euclidean flat infinite 3+3D spacetime, (ie the state before the big bang, flat, infinite, no matter, no chow flow, no expansion, how else when infinite.). It's the final location that begins—it occurs at the big bang, which is not an explosion, but a change from the previous state to the next, to the plasma state, and that's an ultra-high curvature of 3+3 dimensions of two quantities. It's a boiling vacuum, it's a foam dimensions, i.e. an extremely curved environment; that is, it is a "finite" Universe in an "infinite" flat space-time that "floats" in it. The basic Euclidean network - a grid, 3+3 uncurved dimensions, in the state before the big bang, it is still around us, it exists not only before the big bang, but also after it, it is around us and we and the whole complex universe with matter and galaxies and black holes and gravitational fields, (which are warped dimensions), we "float" in that flat basic 3+3D network of space-time. The beautiful thing is that even a mathematician will wonder if he doesn't have to explore "how" big is the singularity = "locality-our universe" and will have to recognize the possibility of proposing

the reality that in an infinite 3+3D non-curved space-time there are finite localities, arbitrarily large, that is near-infinite and near-zero... Not even mathematicians can determine how large a "unit" is—a unit interval of length or time in an infinite grid grid. That place is "our universe", just one. No nonsense like “multiverses. And the Big Bang was not the creation of the universe "out of thin air" (as string theorists claim), but it was a "jump = jump change of state" from the previous to the next, a "jump" from a completely flat spacetime to a completely curved spacetime, with extremely curved dimensions that have been unfolding for 13.8 billion years!!!!,

A) They don't expand, but unfold into the global curvature of the "real structure" (The sky full of galaxies and everything we see "floats" the differently curved dimensions of every place we see).

B) And simultaneously with the global unpacking, the "local locations" are packed (in the microstructure = in the microworld.) They are packed into matter !!!! They are packed (those dimensions) after the big bang into balls = elementary particles, and these are further packed into conglomerates, i.e. into atoms, molecules, into chemical-biological compounds. Etc, etc...etc, as I have described elsewhere over the years. According to physicists from Di Valentino's team, this anomaly could be explained if the expanding universe had a spherical shape. Which is even the same if the expansion is explained by the "unfolding" of this "initial" curvature of the space-time dimension in the Bang = in a state of arrest in which time begins to pass and expand = the space and time dimensions begin to unfold; this state of space-time of ultra-high curvature of the dimensions of time and length, is a plasma, is a state of foam. In this foam "vacuum boils", on Planck scales it acquires by deformation packing mini-localities = "frozen states" - wave spheres-wave packets that become elementary particles, our human concept, packets that manifest themselves with properties such as mass, spin, charge, etc., etc. (Each particle has a different number of packed dimensions with a different curvature of these; this determines their properties). Then such an initial state of the Universe, the space-time after the Big Bang, unfolds, expands "out" "from the singularity" and still, simultaneously further, collapses, "into itself", into matter. This means that there is a clustering, "combining" of matter elements, such as quarks, leptons, bosons, etc. into even more complex units, into baryons, resonances, then into atoms, then into molecules, into compounds - this is the "packing" of curved dimensions into packages, into more complex conglomerates, and this happens not only after the big bang, but that packaging continues to this day; proteins, DNA... We still have the Planck vacuum around us, "yesterday and today", continuously throughout the history of this ! The Universe...,, all around us in the boiling vacuum of planetary and subplanetary scales, the same processes are taking place as they were a million years ago, as they were a billion years ago, and 14.24 billion years ago right after the Big Bang. This entire "local universe" with curved dimensions is nested in a 3+3D grid, a grid of flat Euclidean dimensions. The universe "floats" in an infinite flat space-time. And at the same time, from big-bang there is also unpacking... and packaging... What type of curve do we have for global unpacking, I don't know, probably a parabola, I thought about it 35 years ago...; ⇓ This text was translated twice: from Czech to English and back again to Czech; so it's a "crooked" translation, but perhaps the most understandable

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The genesis of the folding of material structures

Geneze skládání hmotných struktur

http://www.hypothesis-of-universe.com/docs/eng/eng_009.pdf ;
http://www.hypothesis-of-universe.com/docs/eng/eng_096.pdf ;
http://www.hypothesis-of-universe.com/docs/aa/aa_078.pdf ;
http://www.hypothesis-of-universe.com/docs/aa/aa_112.pdf ;
http://www.hypothesis-of-universe.com/docs/g/g_041.pdf pyramidální geneze
http://www.hypothesis-of-universe.com/docs/g/g_049.pdf the genesis of folding
http://www.hypothesis-of-universe.com/docs/g/g_080.pdf
http://www.hypothesis-of-universe.com/docs/h/h_082.jpg

← The principle of alternating symmetries with asymmetries, a photon is a non-local object, it is not a ball, photon A is identical to photon B, it is the same photon (in the microworld) one measurement can determine the properties of the other object, each twin object will be in the superposition of a boy and a girl, a cat she can be dead or alive, you undress the twin and only at that moment you will find out that it is either a boy or a girl, at that moment you will find out that it is a boy and therefore without measuring in Australia the other twin will be a girl, and at that moment the collapse of the wave function occurs. In the first situation, we know who is a girl and who is a boy, who is a dead cat and where, who is a live cat, who is a girl and who is a boy (the hot potato is on the left side of the equation and there is nothing on the right side). Then we oscillate and the potato is on both sides of the equation at the same time = quantum world...our large-scale world is different, causality applies here, not in the micro world. In the micro world, both photons ie A and B are on both sides and when you measure photon A, photon B collapses and there is only one photon A. The reason here is that AB is not equal to BA. If we accept that the microworld does not commute, then everything follows from this... https://www.youtube.com/watch?v=ljhpa6Zoigk&t=648s

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Čas neběží pro nás, neběží nad námi, ani neběží kolem nás, ale naopak (!) : my běžíme v čase, my se pohybujeme na dimenzi, na časové dimenzi, po časové dimenzi a tím krájíme intervaly, např. jednotkové intervaly v jedné časové dimenzi (možná ve druhé časové dimenzi a i třetí dimenzi), a tím tedy „čas běží“. Pochopte, že v Existenci časoprostoru je "Čas" veličina a "Délka" je také veličina a mají 3+3 dimenze a předměty se po těchto dimenzích pohybují = posouvají se (i pole je objekt) a krájí intervaly na dimenzích. Dalším úhlem pohledu na Bytí, na časoprostor, je to, že se rozvíjí; http://www.hypothesis-of-universe.com/docs/c/c_032.gif , nerozpíná se z nějaké singularity. Z obrázku = animace by se mohlo zdát, že vesmír se rozpíná z jednoho bodu, ale není to tak, rozbaluje se z tisíců milionů bodů z mikrosvěta. Tyto body jsou téměř nekonečné všude kolem nás, všude, kam se podíváte, jsou takové "pseudosingularity" , body ve vakuu, ze kterého se z vakua vynořuje časoprostor. Takže rozpínáním časoprostoru všude, tedy tady na Zemi, dokonce i v každé galaxii, se „jednotkový“ interval časový „protahuje, prodlužuje“ ; a my to pak vnímáme jako plynutí – plynutí času, jako tempo plynutí času. A ta dilatace, to je pozorované pootočení systémů, soustavy „pozorovaného objektu“ když jeho soustavu x', y', z', t_1', t_2', t_3' spustíte do soustavy „Pozorovatele“ x, y, z, t_1, t_2, t_3 A tady máte zase „jiné tempo plynutí času“, což není pravda, protože pravdou je, že systém zkušebního objektu rakety s velitelem Pavlem se otočil a my tady, doma, dostáváme na naší hvězdárně rozšířené intervaly. Atd., atd. Vysvětlení by mohlo pokračovat, být dlouhé, ale dost. → dtto angl.. →

Time does not run for us, it does not run over us, nor does it run around us, but on the contrary (!) : we run in time, we move on a dimension, on a time dimension, along a time dimension and thus cut intervals, e.g. unit intervals in one time dimension (perhaps in the second time dimension and even the third dimension), and therefore "time runs". Understand that in the Existence of Space-Time "Time" is a quantity and "Length" is also a quantity and they have 3+3 dimensions and objects move along these dimensions = shift (even a field is an object) and cut intervals on dimensions. Another view of Being, of space-time, is that it is evolving; http://www.hypothesis-of-universe.com/docs/c/c_032.gif , it doesn't expand from some singularity. From the image = animation, it might seem like the universe expands from a single point, but it doesn't, it expands from thousands of millions of points from the micro world. These points are almost endless all around us, everywhere you look there are such "pseudosingularities", points in the vacuum from which space-time emerges from the vacuum. So, by expanding space-time everywhere, that is, here on Earth, even in every galaxy, the "unit" time interval is "stretched, lengthened"; and we then perceive it as passing - the passing of time, as the pace of passing time. And that dilation, that is the observed rotation of the systems, the system of the "observed object" when you lower its system x', y', z', t_1', t_2', t_3' into the system of the "Observer" x, y, z, t_1, t_2 , t_3 .And here again you have "a different pace of the passage of time", which is not true, because the truth is that the system of the test object of the rocket with the commander Pavel turned around, and here, at home, we receive extended intervals at our observatory. Etc., etc. The explanation could go on, be long, but enough.

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