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Scientists JUST Solved The Missing Piece Between Quantum Mechanics and General Relativity

Vědci právě vyřešili chybějící kousek mezi kvantovou mechanikou a obecnou teorií relativity

OSCAR NAGRI

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1,635 views 4. 2. 2025 #quantumentanglement #theoryofeverything #bigbang The universe holds many mysteries, and one of the biggest is how quantum mechanics and general relativity fit together. Scientists have spent more than a century trying to unify these two powerful theories, but they seem to describe reality in completely different ways. General relativity explains how material objects like planets and galaxies interact, while quantum mechanics deals with the strange behavior of tiny particles. The problem is that these theories break down in extreme conditions, like black holes or the early universe. A new idea suggests that spacetime itself is not fundamental, but emerges from deep quantum processes. !!! This concept, based on quantum entanglement and the holographic principle, could revolutionize physics. Black holes could store quantum information at their event horizons rather than destroying it, solving the long-standing black hole information paradox. Understanding these ideas could unlock new technologies of advanced quantum computing for space travel. As we delve deeper into the mysteries of the universe, we may discover even more groundbreaking truths about reality. #science, #physics, #quantum mechanics, #general relativity, #spacetime, #universe, #black holes, #holographic principle, #quantum theory, #einstein, #theory of everything, #cosmology, #bigbang, #quantum physics, #quantum gravity, #wormholes, #string theory, #multiverse, #astrophysics, #dark matter, #dark energy, #gravitational waves, #time travel, #parallel universe, #quantum entanglement big bang, quantum gravity, astrophysics, dark matter, dark energy, wormholes, string theory, multiverse, gravitational waves, time travel, parallel universe, quantum entanglement, space exploration.

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(01)- the unification of quantum mechanics and general relativity has been one of the most elusive challenges in physics for over a century scientists have struggled to bridge the gap between these two groundbreaking theories each explaining the universe of vastly different scales while general relativity proposed by Albert Einstein describes the behavior of massive objects like planets stars and galaxies quantum mechanics explains the unpredictable behavior of particles and atoms at the smallest scales both theories have been immensely successful yet they remain fundamentally incompatible under certain extreme conditions the main conflict lies in how each Theory treats space time general relativity envisions SpaceTime as a smooth continuous fabric warped by mass and energy in contrast quantum mechanics describes a universe composed of discrete probabilistic events that unfold at the particle level this Clash becomes particularly apparent in black holes in the early Universe where both Quantum effects and intense gravity exist simultaneous L when applied to

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am these extremes environments the mathematical equations from both theories break down resulting in contradictions and infinite values for decades physicists have searched for Theory of Everything a single framework that could seamlessly unite quantum mechanics and general relativity such a theory would provide a complete description of all physical phenomena from the tiniest particles to the largest galaxies despite multiple attempts and several promising theories no one has fully succeeded until now now a groundbreaking new approach suggests that SpaceTime itself may not be a fundamental entity but rather an emergent property that arises from underlying Quantum processes at the smallest scales of reality in this revolutionary perspective SpaceTime does not exist independently of quantum mechanics instead it emerges from the quantum entanglement of particles a phenomenon where particles become interconnected sharing information instantaneously even across vast distances this idea suggests that what we perceive is the smooth fabric of
2:00
a.m SpaceTime may actually be a byproduct of the deep connections between Quantum particles this concept aligns with the holographic principle which has gained significant attention in recent years the holographic principle proposes that all information about a region of space can be encoded on its boundary similar to how a hologram stores 3D information on a 2d surface initially proposed in black hole physics this principle suggests that information falling into a black hole is stored on its Event Horizon expanding on this idea scientists now believe the entire universe may function similarly instead of treating SpaceTime as a continuous entity they propose that it emerges from deeper Quantum processes like entanglement and maybe a projection of information encoded on a cosmic boundary this means the universe could be an interconnected web of entangled Quantum particles where SpaceTime itself arises
from their relationships as physicists explore this new framework they have discovered mathematical structures resembling the equations of general relativity indicating a deep connection between
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quantum mechanics and space-time geometry one of the most exciting applications of this discovery is its potential to transform our understanding of black holes these enigmatic objects serve as natural Laboratories for testing the intersection of quantum mechanics and general relativity Recent research suggests that black holes are not just curved regions of SpaceTime but also massive reservoirs of quantum information the famous black hole information Paradox which suggests that information is lost inside a black hole may be resolved through this new framework instead of Disappearing information might be encoded on the Event Horizon and preserved through quantum entanglement this aligns with the holographic principle where the boundary of a black hole could contain all the information about particles that fall into it as scientists further develop this Theory they are building new models of the early universe that describe the big bang and the birth of SpaceTime in Quantum terms these models propos that gravity and SpaceTime emerged from a Quantum State offering a coherent framework for understanding the origins
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of the cosmos in Quantum cosmology the universe is treated as a Quantum system that evolves over time the wave function of the universe encodes all possible configurations of SpaceTime and matter allowing scientists to explore its Quantum origins in ways that were
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(01)- The unification of quantum mechanics and general relativity has been one of the most difficult challenges in physics for over a century, with scientists attempting to bridge the gap between these two groundbreaking theories, each of which explains the universe on very different scales. While Albert Einstein's general theory of relativity OTR describes the behavior of material objects such as planets, stars, and galaxies, quantum mechanics QM explains that atoms at the smallest scales are unpredictable. Immensely successful, they remain fundamentally incompatible under certain extreme conditions, the main conflict being how each theory treats space-time. General relativity imagines spacetime as a smooth continuous fabric twisted into a parabola by matter and energy, in contrast, quantum mechanics describes a universe composed of **discrete probabilistic events**, of discrete packages made of dimensions of two quantities at the microcosm level and interacting in linear equations that unfold at the particle level, this clash is especially noticeable in black holes in the early universe, where there are intense quantum effects as well as simultaneous L effects

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in these extreme environments **mathematical equations** from both theories **collapse**, equations collapse, but the real world does not collapse, which goes from linear to nonlinear curvatures, I don't know how, but mathematicians should know. I found the principle of alternating symmetries with asymmetries for this "phenomenon". That's a good move, I think, right? https://www.hypothesis-of-universe.com/docs/aa/aa_008.pdf ; https://www.hypothesis-of-universe.com/docs/aa/aa_013.pdf ; https://www.hypothesis-of-universe.com/docs/aa/aa_041.pdf ; https://www.hypothesis-of-universe.com/docs/eng/eng_008.jpg ; leading to contradictions and infinite values. For decades, physicists have been searching for a Theory of Everything, a single framework that could seamlessly unify quantum mechanics and general relativity, such a theory would provide a complete description of all physical phenomena from the smallest particles to the largest galaxies, despite many attempts and several promising theories that are now unlikely to be entirely successful. A fundamental entity, but rather an emergent property that emerges from fundamental quantum processes at the smallest scales of reality in this revolutionary perspective. Spacetime does not exist independently of quantum mechanics, instead emerging from quantum entanglement of particles, a phenomenon where particles connect instantly and share information even over vast distances, this idea suggests that what we perceive is a smooth fabric

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SpaceTime may actually be a byproduct ?? of deep connections between quantum particles, this concept is consistent with the holographic principle, which has gained significant attention in recent years, the holographic principle proposes that all information about a region of space can be encoded at its boundary, much like a hologram stores 3D information on a 2D surface, originally proposed in black hole physics. This principle now holds that information falling within the entire universe is now stored on a similar function of a black hole. Instead of treating spacetime as a continuous entity, they propose that it emerges from deeper quantum processes, I believe that spacetime "emerges" on Planck scales, but this is the apparent effect of "unpacking" the dimensions of the cp quantities from a boiling vacuum, as happened after the Big Bang. I know that I describe the Big Bang as a change in the state of curvature of the dimensions from **k = 0** to **k = infinity**, yet it may also be true that dimensions

emerge on Planck scales from all the "singular points" of that spacetime from 10^{-40} m... such as entanglement and possibly projection of information encoded at the cosmic boundary. This means that the universe could be an interconnected web of entangled quantum particles, where spacetime itself emerges from their relationships As physicists explore this new framework, they have discovered mathematical structures reminiscent of the general relations of relativity and the equations
3:00
of quantum mechanics and the geometry of spacetime. One of the most exciting applications of this discovery is its potential to transform our understanding of black holes. These mysterious objects serve as natural laboratories for testing the intersection of quantum mechanics and general relativity. ???? Recent research suggests that black holes are not just curved regions of spacetime, but also ||massive reservoirs of quantum information||, the famous information about black holes may be lost thanks to a new black hole system, suggesting that information about the black hole is lost inside. The disappearing information may be encoded on
event horizon and preserved through quantum entanglement, ??? which is consistent with the holographic principle, where the boundary of a black hole can contain all the information about the particles that fall into it. As scientists further develop this theory, they are building new models of the early universe that describe the big bang and the birth of space-time in quantum terms, these models offer a framework for understanding gravity and coherent time. ???
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Cosmo In quantum cosmology, the universe is considered a quantum system that evolves over time, the wave function of the universe encodes all possible configurations of space-time and matter, allowing scientists to probe its quantum origins in ways that have been
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(02)- previously impossible these new models can even explain key features of the Big Bang such as Cosmic inflation the rapid expansion of the universe in its earliest moments but the implications of this discovery extend beyond the early universe it also raises profound questions about the nature of time itself if SpaceTime is emergent then time may not be a fundamental property of the universe but rather a consequence of quantum interactions this challenges the classical understanding of time's linear progression if time is emergent different regions of the universe may experience time in fundamentally different ways depending on their Quantum State this could provide new insights into time dilation where time behaves differently in strong gravitational fields as predicted by
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general relativity the unification of quantum mechanics and general relativity could revolutionize not only our understanding of the universe but also our technological capabilities by unlocking the secrets of emergence space time we could develop new methods for manipulating gravity energy and even space itself this could lead to breakthroughs in space travel energy production and advanced Quantum Technologies however with these new possibilities come important ethical questions if we gain the ability to manipulate the fabric of SpaceTime could we inadvertently disrupt the universe these are crucial questions for scientists and policy makers to consider as we push the boundaries of knowledge renowned physicist miio Kaku has called this discovery the Next Great Leap in our understanding of the universe he believes it could pave the way for an era of unprecedented scientific and

technological progress at the same time Kaku ctions that we must approach this new frontier with humility and Care the universe is deeply complex and and our
6:00
understanding remains incomplete as we explore these Realms we must remain mindful of the risks involved the discovery of emergent SpaceTime underscores the interconnectedness of everything in the universe it suggests that we are not separate from the cosmos but are deeply embedded within it governed by the same fundamental principles as we continue to unravel the mysteries of existence we may uncover even deeper layers of reality challenging our current understanding in ways we cannot yet imagine subscribe to
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our Channel and thanks for watching
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(02)- previously impossible, these new models can even explain key features of the big bang, such as cosmic inflation, the rapid expansion of the universe in its earliest moments, but the implications of this discovery go beyond the early universe, but it also raises deep questions about the nature of time itself, if SpaceTime emerges, then time may not be a fundamental property of the universe, but rather a consequence of quantum interactions, and this is nonsense, the author made it up to spice up everyday life. Time is not a property!!!, if the different understanding of time domains of this progression is questioned, it may question the classical understanding of time domains. ?? blah, blah, in fundamentally different ways depending on their quantum state, this could provide a new perspective on time dilation, where time behaves ?? time does not behave, time only has the "task" of running, ticking, unfolding, flowing, unwrapping..., not even that (!) because the flow - =the passage of time is provided by matter, a material object when it moves "through time", through the time dimension= and thus cuts off time intervals, and we then perceive this as a flow - the passage of time. We flow, not time ... *the time dimension stands still* otherwise in strong gravitational fields, as predicted
5:00
general theory of relativity the unification of quantum mechanics and general theory of relativity could cause a revolution not only in our understanding of the universe, but also in our technological capabilities by revealing the secret of the origin of space-time, time did not come into being, time is here as a stoic environment together with space. Everything else is made from spacetime by warping dimensions… we could develop new methods for manipulating gravitational energy and even the universe itself, which could lead to breakthroughs in power generation for space travel and advanced quantum technologies, what kind of fantasy is this? but with these new possibilities come important ethical questions if we were to gain the ability to manipulate the universe, if we were to gain the ability to manipulate the universe. You can't even beat fusion... Scientists and politicians to consider how we are pushing the boundaries of knowledge, renowned physicist **Michio Kaku** has called this discovery **The next great leap in our understanding of the universe** and believes, everyone believes…, it is sad that scientists neglect to think about HDV, I also believe that in HDV there is a new understanding of everything around us, that it could pave the way for an era of unprecedented scientific and technological progress and at the same time Kaku says, that we must approach this new frontier with humility and care, that the universe is deeply complex and ours,

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porozumění zůstává neúplné, když zkoumáme tyto říše, musíme si pamatovat rizika spojená s objevem vznikajícího časoprostoru. Ano, také si myslím, že časoprostor emergentně vzniká na planckovských škálách, tam se vynořují dimenze https://www.hypothesis-of-universe.com/docs/c/c_032.gif , časoprostor vzniká všude kolem nás, stále… podtrhuje propojenost všeho ve vesmíru naznačuje, že nejsme odděleni od vesmíru, ale jsme v něm hluboce zakořeněni to není novinka, to ví každý studentík… a řídíme se stejnými základními principy, jak pokračujeme v odhalování tajemství existence, tu nepochopíme nikdy… které si můžeme představit, abychom odkryli ještě hlubší vrstvy reality, které si nedokážeme představit, jak zpochybnit naše současné chápání ?? a zase jsem se nedozvěděl (viz nadpis článku) „jak“, jak právě vyřešili vědci spojení OTR s QM
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náš kanál a děkujeme za sledování
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