# How to create an absolute vacuum and a perfectly isolated system

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According to modern scientific knowledge, an absolute vacuum is not obtainable. Quantum theory sets limits for the best possible quality of vacuum, predicting that no volume of space can be perfectly empty. In spite of the fact that the technology of creation of “perfect vacuum” is fundamentally forbidden, I can prove it may ultimately be allowed, by physics. Paper shows how to create and detect the absolute vacuum (it is void of particles, radiation, neutrino, virtual particles, zero point fluctuations, and void of space-time!). Intuitively, a vacuum is what is left when all matter is removed from a region. It is shown that depending on the speed we remove the matter, we can obtain a Torricelli's vacuum or a Descartes' absolute vacuum. Since gravitation and neutrino cannot be shielded, there is no way to make a perfectly isolated system. The absolute vacuum allows us to shield even gravitation and neutrinos and teleport matter at distance 13 billions light years. There are testable consequences for the absolute vacuum theory.

## 1 Introduction

A new method of hole teleportation was published in 1999 [1], but without precise technical description for the vacuum holes, and how they are to be produced and manipulated. Therefore, the present paper demonstrates what is a vacuum hole, and how to detect and create the holes. The purpose of this paper is to introduce the *nonmaterial objects* in physics – so called vacuum holes. A hole in physical vacuum is a *non-material object* because it does not contain any material things inside, including space-time. The primal void has been named with many names: vacuum holes, holes in space-time, absolute vacuum, zero-space, perfect vacuum. The experimental demonstration of absolute vacuum may ultimately allow the following “forbidden” today technologies:

1. Creation of the perfectly isolated systems by enveloping an object with closed hole surface (consisting of vacuum holes). Such hole sphere able to shield even gravitation and neutrinos.
2. The absolute vacuum allows teleportation of matter [1] at distance 13 billions light years and, probably, time travel;
3. The absolute vacuum allows creating the artificial gravitation.
4. The absolute vacuum may be used for destruction of the very durable materials.

## 2 What is a vacuum?

Let us begin with a definition of vacuum. According to the Wikipedia article on the topic, a vacuum is a volume of space that is essentially empty of matter, such that its gaseous pressure is much less than atmospheric pressure. The word comes from the Latin term for "empty," but in reality, no volume of space can ever be perfectly empty. A perfect vacuum with a gaseous pressure of absolute zero is a philosophical concept that is never observed in practice.

Consider a vacuum chamber that has been completely evacuated, so that the (classical) particle concentration is zero. The walls of the chamber will emit light in the form of black body radiation. Even if a region of space contains no particles, the empty space may be continually creating pairs of virtual particles, for example a positron and electron, which rapidly annihilate each other. Therefore, quantum theory sets limits for the best possible quality of vacuum,

predicting that no volume of space can be perfectly empty. Vacuum energy is an underlying and nonremovable background energy that exists in space even when devoid of matter. The virtual particles can never be evicted! Thus, we cannot evacuate all matter from chamber. Another problem is that there are weakly interacting particles and fields that could enter the vacuum chamber. No matter how thick the walls of the chamber are, the gravitation and a neutrino would enter the region. Since gravitation and neutrino cannot be shielded, there is no way to make a perfectly isolated system. Consequently, there is no way to make the absolute vacuum too, according to modern knowledge, because external particles and fields continuously enter a region. However, just because we don't know how to do something today, doesn't mean that it is impossible.

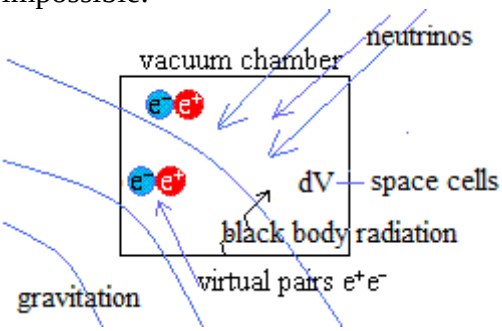


Fig. 1 The absolute vacuum is not obtainable because external particles and fields continuously enter a region. The virtual particle-antiparticle pairs continuously appear and disappear in the chamber. There is spacetime in the chamber (space cells dV). The walls of chamber emit black body radiation, so the vacuum does have a radiation pressure.

Thus, our purpose is creation of absolute vacuum that is essentially empty of matter: void of classical and virtual particles, void of radiation, void of gravitation, void of neutrinos. There are two fundamental obstacles to creating absolute vacuum. Quantum mechanics is the primary obstacle: the quantum theory predicts the existence of vacuum energy and virtual particles in empty space. Neutrino and gravity shielding is another obstacle, because external particles and fields continuously enter a region.

To overcome the quantum mechanical prohibitions and gravity-shielding problems, I propose the following solution: in order to create the absolute vacuum, first we must *remove the space-time* from the vacuum chamber. It is a solution for all problems. First of all, because the virtual particles (and vacuum energy) can appear *in space-time only*. Therefore, if we could remove the space-time from the chamber, the virtual particles cannot appear already. Thus, if we remove the space-time from region, the quantum mechanical prohibitions disappear. What about neutrino and gravity shielding? Pay attention, that the radiation, neutrino and gravitation are able to propagate through the *space-time only*. Therefore, if we could remove the space-time from a chamber, the neutrino and gravitation cannot enter the chamber, because, there is not space-time to traverse. Thus, by removing space-time from the chamber, we solve all problems and obtain an absolute vacuum and a perfectly isolated system at the same time. I can prove experimentally, that inside of the vacuum chamber is *just an absolute vacuum* by help of two atomic clocks because the absolute vacuum changes the properties of surrounding spacetime. The Torricelli's vacuum cannot slow down time!

## 3 How to obtain the absolute vacuum and perfect isolation using Descartes theory

Descartes maintained that there could be no vacuum, and all matter was constantly swirling to prevent a void as corpuscles moved through other matter. Nevertheless, Descartes first describes the new type of absolute void.

Let's analyze the main ideas in Descartes theory [2]: "if it be asked what would happen were God to remove from a vessel all the body contained in it, without permitting another body to occupy its place, the answer must be that the sides of the vessel would thus come into proximity with each other. For two bodies must touch each other when there is nothing between them, and it is manifestly contradictory for two bodies to be apart, in other words, that there should be a distance between them, and this distance yet be nothing; for all distance is a mode of extension, and cannot therefore exist without an extended substance". Thus the main positions of Descartes theory are:

1. If to remove from a vessel all the body contained in it, without permitting another body to occupy its place, the sides of the vessel would thus come into proximity with each other;

2. "it being absolutely contradictory that nothing should possess extension". It means that the absolute Descartes vacuum do not have the property of extension. It is important to notice that in modern physics the concept of space-time combines space and time within a single coordinate system. In the Theory of Relativity, time is no more an independent physical quantity – it is linked with space in four-dimensional space-time. Consequently, inside of Descartes vessel is no extension and no time too, it is a hole in space-time. In such a way a hole in metal, for example, do not have the properties of metal. Probable, Descartes does not mention about time in his vessel because in past physical time was an independent quantity (absolute time), running uniformly throughout the entire cosmic.

Let we repeat the Descartes' experiment with vacuum. If you take a chamber and remove everything from inside it - every particle, every photon – there will be nothing left?

There is a vessel contained a gas (body). Consider a gas has been completely evacuated by pumps and other devises, so that the (classical) particle concentration is zero. According to Descartes, the sides of the vessel would thus come into proximity with each other. Nevertheless, we see the vessel intact, in spite of the fact that a vessel contains a vacuum. According to Descartes, "nothing" cannot possess extension; consequently, our vessel is not empty and contains invisible particles. It means another "body" (or particles) occupied the vessel's space during a time we evacuate a gas. It explains why the walls of the vessel do not come into proximity with each other.

What particles fill our "empty" vessel? These particles are able to penetrate through any material walls, and can't be removed by the pumps or by other similar devices. Particles are invisible, but possessing the property of extension. Probably it is neutrino, fundamental fields, radiation or virtual particle-antiparticle pairs, which are present in the vacuum. Besides some theories affirm that space is quantized and consist of elementary volumes dV or space cells. The space cells have just the property of extension, are invisible and could not be removed from vessel by pumps or by other similar devises.

Thus, the conclusion is that during time we evacuate a gas from vessel, the free space occupies another particles. But even so, the main question remains unresolved about if there could be the Descartes void in our chamber. How can we create a Descartes vacuum? We must remove from a vessel all the body contained in it, without permitting another body to occupy its place.

There is a solution to use Einstein's relativity to produce the absolute vacuum; no signal can be transmitted faster than **c** (through space). Since the speed of motion is limited by the speed of light **c**, if we remove the body from vessel very quickly (instantly), a Descartes absolute vacuum must appear for short time, because environment cannot occupy the vessel's space instantly. Because the walls of vessel are *material* and cannot move faster than light in order to come into proximity instantly. Therefore the lifetime of a Descartes' void is nonzero.

**There are two kinds of the physical vacuum: a Torricelli' vacuum and a Descartes' absolute vacuum.** First we obtain if the body is removed slowly from the vessel due to the space

of vessel occupies quickly other particles; Second absolute void we obtain if we remove the body instantly. In this case the Descartes void exist during a short time while walls of the vessel come into proximity with each other at near-light speeds. In other words, a Torricelli' vacuum is a *volume of space* that is essentially empty of matter, such that its gaseous pressure is much less than atmospheric pressure. In contrast, a Descartes' vacuum is a total absence of matter and space-time (in vessel) due to the walls of vessel come into proximity with each other.

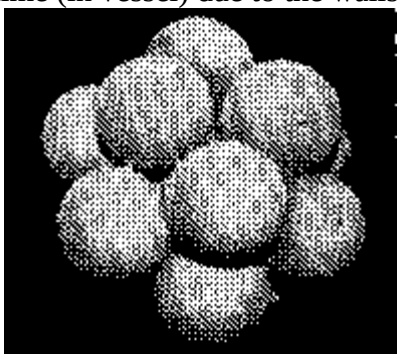

Fig. 2 It is a Descartes' vessel with an absolute vacuum (hole) inside.

We cannot see the naked hole (Descartes' vacuum) because "it is nothing", but we can see the Descartes' vessel consisting of real particles. A hole in space-time is always "dressed" by surrounding particles (environment). Therefore, if we speak about the "sizes" of the vacuum hole, we mean the sizes of a real Descartes vessel consisting of real particles.

The Descartes vacuum can be directly deduced also from the theory of quantized vacuum. Let's analyze the implications of quantized space-time — space being granular, not continuous, at its smallest scales. Suppose that space-time is composed of a fluctuating space cells dV. Such particles are invisible and Lorenz invariant because they are virtual particles that appear and disappear continuously. If the space cell disappears (instantly), in the same "place" appears a vacant place or a hole in space-time. Then particles of surrounding medium (space cells and elementary particles) fill a hole as a Descartes vessel. If the space-time has quantum structure, the virtual holes and "Descartes vessels" should fill the entire Universe.

## 4 How to produce holes in space-time artificially

The theory suggests two methods of creation of absolute vacuum:

1. Holes in space-time appear if we quickly remove from a vessel all the body contained in it, without permitting another body to occupy its place;

2. We can obtain large holes by expanding small holes.

There are physical processes able to produce a Descartes' vacuum, where material particles disappear instantaneously, for example annihilation of particle-antiparticle, decays, inelastic scattering. Imagine a particle moving at near-light speed strikes another particle. In that case, a particle is thrown out instantaneously at nearly light speed from the occupied volume due to a Descartes vacuum appears for short time. The Descartes' vacuum appears also at the annihilation of particle-antiparticle pairs and decays because there initial particles disappear, probably instantly. We can verify this hypothesis experimentally by help of two atomic clocks: Descartes' vacuum is always accompanied by time retardation effects.

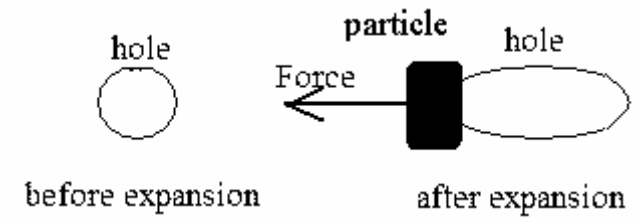


Fig. 3 The size of hole increases at acceleration of particle.

According to the theory, the vacuum holes appear continuously in every point of space. The holes interact with particles with formation of a Descartes vessel. Thus, if we accelerate the particle, one expands the size of hole due to appear a force opposite to acceleration – inertia. Therefore, large holes appear at acceleration (especially at inelastic scattering) of particles. Vacuum holes appear in the following processes:
1. Annihilation of particle-antiparticle pairs;
2. Inelastic scattering of particles;
3. Decays of particles;
4. According to the theory [3], gravitating bodies emit holes;
5. Holes appear at motion of body with acceleration.
6. Small vacuum holes continuously appear spontaneously in every point of space.

## 5 The properties of absolute vacuum (vacuum holes)

1. The main property of absolute vacuum is described by Descartes: after appearance, the hole collapses as a Descartes vessel. If to remove from a vessel “all the body contained in it, without permitting another body to occupy its place, the sides of the vessel would thus come into proximity with each other”.
2. The force of attraction of absolute vacuum is so great that it destroys any material chamber. No matter how thick and durable the walls of the vacuum chamber are, after creation of absolute vacuum the sides of the chamber would thus come into proximity with each other at near-light speeds. The destruction force is so great because *the extension property disappears* inside of chamber. The sides of the chamber come into proximity with each other at near-light speeds because the extension property disappears between them, and walls fill the “nothing” together with surrounding space-time. Therefore, the absolute vacuum can be used for destruction of the most durable materials with chemical bounding between atoms.
3. The vacuum holes are *non-material objects* because holes don’t contain any material things inside, where the property of extension tends to zero and time dilation is infinite. Descartes theory affirms that a hole in space-time cannot have the property of extension because “it being absolutely contradictory that nothing should possess extension”. In addition, it is logically evident that a hole in space-time cannot have also the properties of time, because it is *a hole in space-time*. Therefore, if we increase the concentration of holes in space, it would result in contraction of all distances between any two points and time retardation, because in the limiting case, when space consists of holes only, the distance between every two points are equal to zero and time runs infinitely slow. The given effect of length contraction and time retardation near massive bodies was called a curved space-time. Very close to a hole, time virtually stands still for the outside observer.
4. The lifetime of the hole is nonzero because surrounding particles (the walls of a vessel) cannot come into proximity with each other instantly (because the speed of motion is limited by the speed of light **c**). Therefore the lifetime of hole cannot be less than R/c. (R is the radius of hole, c – the speed of light).

5. The main difference between holes in space-time and material particles is that we cannot accelerate a hole mechanically, or by help of electric or magnetic fields because it is a rupture of space-time. Therefore, the holes are immobile concerning the inertial frame of birth. Nevertheless, holes fall in the gravitational field as a body, but the gravitation is not able to penetrate inside of hole.
6. The minimal size $D_h$ of elementary holes which continuously appear in space do not follow directly from the theory, it is the "free parameter". Probably, $D_h$ can be ~ $10^{-15}$ m because in that case the hole theory is the most simple. In this case, the natural vacuum holes have lifetimes of order $10^{-24}$ s.
7. The vacuum holes have the property of being Lorentz-invariant.
8. The speed of motion of vacuum holes should be equal to the speed of light.
9. Vacuum holes possess energy. We must spend energy to produce a hole in space-time, in fact we "expand" the borders of the Universe; that requires energy and work. On the contrary, a vacuum hole collapses as a Descartes vessel and accelerates the surrounding particles. Thus, a vacuum hole is an energetic phenomenon. Hence, there is need to attribute some energy to each hole, and in general, it is possible to measure the sizes of holes in energy units, for example in MeV. For example, at annihilation of electron-positron pair appears a hole with energy 1.02 MeV and vice-versa, a vacuum hole with energy $E \geq 1.02$ MeV collapses with creation of $e+e^-$ pairs, photons or other secondary particles. It has been shown that the energy of hole is quantized [4].
10. The closed surface consisting of vacuum holes is a perfectly isolated system because the fundamental fields cannot propagate outside of space-time metric. Do not exist radiation or particles able to penetrate through absolute vacuum where the distance between every two points is equal to zero and time dilation is infinite. Therefore, the closed hole surface can shield even gravitation and neutrinos. Another explanation – the hole surface is impenetrable because it is a border of Universe. The matter cannot move outside of Universe.
11. A suspicion that the appearance of vacuum holes increases de Broglie wavelength of adjacent objects comes, for example, from the similarity between hole teleportation and macroscopic quantum tunneling (particle-wave-particle kind of teleportation [4].

## 6 Vacuum holes are able to describe gravitation

We must show that holes are able to describe the real phenomena, for example gravitation, to prove *theoretically* the existence of holes. Consider space-time is quantized and consists of fluctuating space cells dV, which appear and disappear continuously. When space cell disappears, instead appears a hole in space-time. Therefore, the holes in space-time appear continuously in random points. We analyze interaction of a material particle P with the vacuum holes.

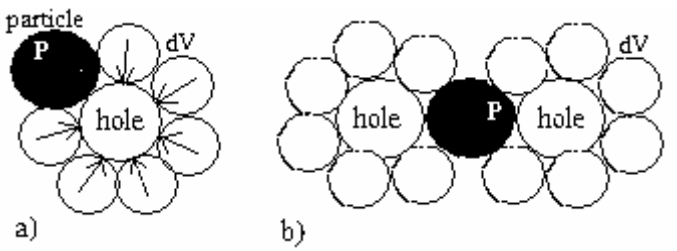


Fig. 4 The interaction of particle P with one (a) and two holes (b). It is a Descartes vessel with a hole in the centre, walls composed of material particle P (black sphere) and space cells.

Around particle P continuously appear and disappear holes in space-time. Consider the interaction between a particle P and a vacuum hole (Figure 3a). The appearance of the vacuum hole near P means that a Descartes void has appeared which must be filled by all surrounding particles (by particle P and surrounding space cells dV). In fact, it is a Descartes vessel, where white spheres are the vacuum holes and grey spheres are the walls of vessel. Therefore a particle P and space cells dV will move to the centre of hole. Let's consider now a case when two vacuum holes appear simultaneously on opposite sides of particle, as show Figure 3b. The particle cannot fill simultaneously two holes and cannot move to the opposite sides; therefore particle will stand fixed while both vacuum holes will be filled by surrounding space cells (dV) only. Since the dV moves to particle, it means that the holes move to the opposite side. There is analogue with an electric current where electrons move in one direction and holes move in the opposite. As vacuum holes continuously appear around particle, it means that particle will emit continuously a flux of "their own" holes. It is necessary to notice, that dV moves to particle in both cases *a* and *b* (Fig. 1). Therefore, particle radiates holes in both cases *a* and *b*. Thus, a massive material body must emit a flux of holes by each component particle. The speed of motion of vacuum hole in space should be equal to the "collapse" speed of hole that is supposed to be equal to the speed of light **c**.

**The definition of mass**: The mass of a particle is a parameter describing the ability of a particle to interact with vacuum holes and emit "its own" holes; the more holes a particle radiates, the more the mass.

If to collect all holes emitted by a material point during a time unit (one second), we shall receive a sphere with volume V and radius r. If the two bodies emits during a second a volume of holes $V_1$ and $V_2$, with radiuses $r_1$ and $r_2$, and the distance between them is *R*, the magnitude of the force is:

$F = G_m \frac{r_1^3 * r_2^3}{R^2}$, Where $G_m$ = 1,665 * $10^9$ N /$m^4$ (or kg / $m^3s^2$); R is the distance between two points that emits holes. $G_m$ is a force of attraction between two points that emits during a second a stream of holes with summarized volume $V_0$, which is a sphere with radius one meter, and the distance between points are R = 1 m. Also the formula 1 works only if a hole field is weak and bodies move slowly in comparison with the speed of light.

The vacuum hole is the only "particle" in physics, which is able to explain the curvature of spacetime only with the help of its properties. A material body radiates holes by each component particle, thus creating some kind of holes distribution in space (the curvature of space-time). The properties of space, as well as properties of any other body, should depend on its component particles. If the concentration of holes in space increases, the properties of space should change in favor of the properties of holes. Therefore, if we increase the concentration of holes in space, it would result the contraction of all distances between any two points and time retardation, because in the limiting case, when space consists of holes only, the distance between any two points is equal to zero and time runs infinitely slow (the curvature of space-time).

The hole theory explains why no graviton has ever been detected; because a vacuum hole is "nothing" and cannot be observed or detected by definition.

If we create the absolute vacuum artificially, in this way we create the *artificial gravitation*. Let we create the N holes per second with a total volume V = N*$V_0$ and radius r. In this case the acceleration of free fall at distance R from the centre of hole will be:

$g = k \frac{r^3}{3R^2}$; where k = 1/$s^2$; $r^3 = 3G_vM$ ; Gv = 6.672 * $10^{-11}$ $m^3$/kg, Gv is the coefficient of transformation of mass in volume, that numerically is equal to gravitational constant, but with other units – $m^3$/kg; M – equivalent mass.

For example, if the hole generator creates every second holes with total volume V= 4.187 $m^3$ and radius r = 1m, the acceleration of free fall at distance 1 m from the centre of hole generator will

be g = 0.333 m/s$^2$. It is equivalent to the appearance of additional (virtual) mass M = 4.996 *10$^9$ kg. The control over gravitational forces could also be used to create the levitating devises.

## 7 How to prove experimentally the existence of absolute vacuum

1. Let's start by assuming that the absolute vacuum has created. How to prove we have just the absolute vacuum in the chamber? We can use the fact that a Torricelli vacuum and a Descartes absolute vacuum has the different properties. To create an absolute vacuum, we must remove the space-time from chamber, and it must change the properties of surrounding space-time. If we increase the concentration of holes in space-time it would results in length contraction and time dilation, because in the limiting case, when space consists of holes only, the distance between every two points always are equal to zero and time runs infinitely slow. In other words, near the source of holes in space-time must be effects time dilation and length contraction. Therefore, we can detect the source of holes using two atomic (cesium) clocks: the clocks placed near the source of holes should tick slower than the same clock placed far outside. Generally, there are following methods of detection of vacuum holes:
1. We can detect the source of holes using atomic clocks.
2. We can detect the large separate holes by help of ordinary particle detectors.
3. We can prove the existence of holes using gravitational-wave interferometers by measuring the foaminess of space-time.
4. We can prove the existence of holes by experimental demonstration of its properties.

### 7.1 Detection of holes using atomic clocks

Detection of absolute vacuum using its property number 3. We can detect the source of holes by help of two synchronized atomic clocks that can be arbitrarily far apart: the clocks placed near the source of holes should tick slower than the same clock placed far away.

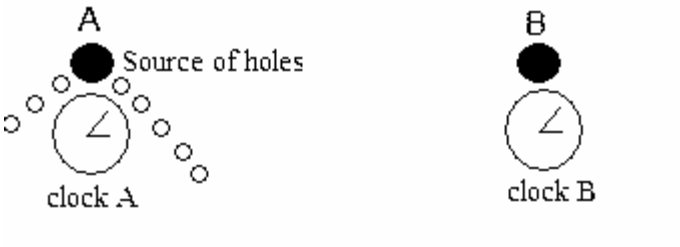


Fig.5 The detection of the source of holes using two atomic clocks.

I propose to place the first clock near the atomic reactor, or near the centre of particle collisions in the collider, and another clock outside of the hole source. For experimental demonstration of absolute vacuum, we must prove the existence of time retardation effect at inelastic scattering, annihilation of particle-antiparticle pairs and at decays. If these processes are dangerous, we can keep the clocks safe with the help of metallic shield, or any other shield, because they are transparent for vacuum holes. Both clocks must be in the same conditions concerning the Earth spinning and gravitation. Clocks should be placed symmetrically relative to Earth's surface and gravitating masses.

The Torricelli's vacuum cannot slow down the time! Therefore, the appearance of time retardation effect near our vacuum chamber is the true proof that we have obtained a new kind of vacuum – the *absolute Descartes vacuum*.

Another criterion for the absolute vacuum: it must destroy all material chambers with chemical bounding between atoms.

### 7.2 Detection of large separate holes by help of ordinary particle detectors

Vacuum holes possess energy, because we must spend energy to produce a hole in space-time by “expanding” the borders of the Universe; that requires energy and work. Therefore, a vacuum hole is able to accelerate the surrounding particles or/and create new particles. The sufficiently large holes are able to create the particle-antiparticle pairs or other particles, depending on external conditions. For example, the virtual holes, which appear spontaneously in vacuum, create the virtual electron-positron pairs. Therefore, the existence of virtual pairs in vacuum is the proof for the vacuum holes. However, the artificial holes are able to create the real particles. Therefore, we can detect large holes by registering its decay products. For example, a hole with energy 1.02 MeV creates an electron-positron pair or products of its annihilation.

### 7.3 Is the space-time foam consisting of holes?

If the holes appear in space-time, the distance between two objects should always have some random fluctuations as the holes constantly form and collapse. The fluctuations will show up when we measure a distance (or a time duration), in the form of uncertainties in the measurement. There is a limit of the accuracy, which one can measure a distance or a time interval with, and interferometers are the best tools for monitoring the distance between test masses. Moreover, by measuring some properties of fluctuation, we might be able to prove the reality of holes in space-time.

Since the experiments with detection of quantum foam are described well in references, I will give only some predictions. We can verify experimentally, if the space-time foam consists of holes by creating artificially these fluctuations. Let us measure the distance between point A and point B. Then we create holes between point A and point B artificially by methods described above (by inelastic scattering, annihilation or decays of particles). If the amount of fluctuations increases, consequently it means that quantum foam consists of holes (bubbles of absolute vacuum) and space cells. Since holes continuously appear and collapse, the space-time as we know it "boils" and becomes a froth of quantum foam.

### 7.4 Search for evidence of vacuum holes by detecting its properties

1. To prove the existence of vacuum holes, I propose to use the described above property of holes Number 5: The main difference between holes in space-time and material particles is that we cannot accelerate a hole mechanically, or with help of electric or magnetic fields because it is a rupture of space-time. Therefore, holes are immobile concerning the inertial frame of birth. Imagine that a positronium or short-lived unstable particle annihilate/decays in a bubble chamber or photographic emulsion. There is a strong magnetic field in the chamber; due to this, the track of the charged particle represents a curve. If short-lived unstable particle decays by creation of vacuum hole, then we must find a very short segment of trajectory where particle moves uniformly and rectilinearly despite the presence of force magnetic field. Thus, the presence of the short straight line at the end of trajectory of unstable particle will be the proof for the vacuum holes. Also, note that the length of straight line is very short because the holes have lifetimes of order $10^{-24}$ s.
2. Search for evidence of vacuum holes using the property Number 11. According to the theory [4], the appearance of vacuum holes increases the de Broglie wavelength of adjacent objects. Let we have a quantum tunneling experiment where the particles continually tunnel through the barrier. Then you shoot the positronium or unstable short-lived particles simultaneously into the

region. If the tunneling probability or distance increases, it will be the proof for the vacuum holes.

The old definition affirms that an absolute (pure) vacuum is *a space void of any matter (energy)*. A new definition states: “an absolute vacuum is a vacant place that is *empty of matter and space-time*, such that a hole in space-time is a *non-material object*, it is a *border of universe*, which exist in every point in the form of virtual holes in space-time. Quantum foam consists of bubbles of absolute vacuum and space cells dV (hole vacuum).

I ask the researchers to test the described above experiments in order to prove the existence of absolute vacuum. It may start the experimental investigation of hole teleportation and levitation.

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