

Interview - Proof That the Black Hole Has No Basis in General Relativity or Newtonian Gravitation and Therefore Does Not Exist

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16th October 2012

This document is the transcript of an interview of me conducted by American scientists who requested me to explain in as simple terms as possible why the black hole does not exist. I provide five proofs, four of which each prove that General Relativity does not predict the black hole, and one which proves that the theoretical Michell-Laplace Dark Body of Newton's theory of gravitation is not a black hole. The interview is located at this URL: <http://www.youtube.com/watch?v=fsWKINfQwJU>

Proof 1. Matter is the cause of Einstein's gravitational field. His gravitational field is NOT a force but is due to a curvature in his spacetime induced by the presence of matter. Thus matter and spacetime are causally linked in General Relativity. Now astrophysicists routinely claim that Einstein's theory of Relativity "predicts" or "accounts" for or somehow "proves" the existence of black holes, by means of a solution to the mathematical expression $\text{Ric} = 0$, which Einstein asserted describes a static-vacuum field, which is a purely mathematically constructed space-time. But isn't it true that based on the principles of General Relativity this universe contains no matter whatsoever, no stars, no planets, no galaxies, let alone neutron stars, black holes, and the like? In fact, in this purely mathematical model of the physical universe, even atoms and subatomic particles are removed, so that it is consequently physically meaningless. Is this so?

Yes indeed, this is true, although it is disguised by a misleading play on words first used by Einstein and reiterated by his followers. But before I answer this question let me first say something more about the causal connexion between spacetime and matter in General Relativity.

In their book "An Introduction to Modern Astrophysics" Carroll and Ostlie say that,

"Mass acts on spacetime, telling it how to curve. Spacetime in turn acts on mass, telling it how to move."

In their book "A Short Course in General Relativity" Foster and Nightingale state that Einstein's field equations,

"... couple the gravitational field (contained in the curvature of spacetime) with its sources."

Hence, in short,

$$\textit{Spacetime geometry} = -\kappa \times \textit{causative matter (i.e. sources)}$$

where κ is a coupling constant. Mathematically this is expressed by Einstein's field equations as:

$$G_{uv} = -\kappa T_{uv}.$$

G_{uv} is called the Einstein tensor and it denotes the geometry and curvature of spacetime, i.e. Einstein's alleged "gravitational field". The Greek letter κ is merely a coupling constant. The T_{uv} is called the energy-momentum tensor and it describes the sources of the gravitational field, i.e. the matter that causes the curvature of spacetime geometry and hence the gravitational field. The subscripts u and v take the values 0, 1, 2, 3. We should also note at this point that solutions to Einstein's field equations are given in terms of what is called a metric, or line-element. These two terms are nothing but fancy names for a distance formula by which the distance between two points in the Minkowski-Einstein 4-dimensional spacetime can be allegedly calculated.

We are now in a position to answer your question and to thereby consider the first argument I present for the non-existence of the black hole via Einstein's argument for the field equations for his "static, vacuum field", from which the so-called "Schwarzschild solution" was obtained by David Hilbert (December 1916) and from which the

black hole was spawned. Hilbert's solution is a corruption of Schwarzschild's solution (December 1915, published January 1916), and of the equivalent of Schwarzschild's solution found independently by Johannes Droste (May 1916, published 1917), neither of which contains the black hole.

According to Einstein, if the energy-momentum tensor is zero then his field equations allegedly reduce to

$$Ric = R_{uv} = 0$$

for "empty space", the so-called "static vacuum field", since in this case the Einstein tensor reduces to

$$G_{uv} = R_{uv}$$

where $R_{uv} = Ric$ is the Ricci tensor. Now we note that by setting the energy-momentum tensor to zero Einstein has removed ALL matter and hence ALL sources from his field equations, by the very definition of the energy-momentum tensor. Therefore $Ric = 0$ describes a Universe that actually contains no matter and hence no sources and so there can be no black hole since the alleged mass of a black hole is a source for an associated gravitational field. Indeed, we note that according to the "Dictionary of Geophysics, Astrophysics, and Astronomy",

"Black holes were first discovered as purely mathematical solutions of Einstein's field equations. This solution, the Schwarzschild black hole, is a nonlinear solution of the Einstein equations of General Relativity. It contains no matter, and exists forever in an asymptotically flat space-time."

Now a Universe that contains no matter contains no gravitational field and does not model the actual Universe since the actual Universe contains lots of matter with gravitational fields. Thus $Ric = 0$ has **no physical meaning**, contrary to Einstein's claims, and those of his followers. You see, Einstein removes all matter and hence all sources by writing $Ric = 0$ as a result of setting the energy-momentum tensor to zero then in the next breath he says $Ric = 0$ describes the field "outside a body" such as a star, where the components of the energy-momentum tensor vanish. Since matter is still the source of Einstein's gravitational field, when one asks Einstein, then what is the **SOURCE** of this alleged gravitational field "outside a body" such as a star, he tells us that it is the body "outside" of which the gravitational field exists! Indeed, in his book "The Meaning of Relativity" Einstein says in relation to Hilbert's metric that,

"... M denotes the sun's mass centrally symmetrically placed about the origin of coordinates."

This is circular reasoning and therefore invalid, remembering that he has already removed all matter and hence all sources by the very writing of $Ric = 0$. Einstein **cannot** remove all matter and hence all sources on the one hand by writing $Ric = 0$ and then in the next breath insert the **notion** of a source being present with the misleading words "outside a body", because there is no body present for anything to be "outside" of by virtue of the energy-momentum tensor being set to zero. His argument violates elementary logic and is therefore false: nothing but a subtle play on the words "outside a body". Thus $Ric = 0$ is physically meaningless. Now since $Ric = 0$ has no physical meaning, Hilbert's solution has no physical meaning either, and so it cannot contain mass and hence a black hole. The same holds for Schwarzschild's actual solution as well and Droste's equivalent solution. Thus, there is no such thing as a black hole. The black hole is not predicted by General Relativity at all. This argument is sufficient to invalidate the concept of the black hole completely. Indeed, any of the arguments I will give stand alone as proofs that the black hole is fallacious.

Proof 2. Einstein's Theory of General Relativity includes the Principle of Equivalence. How does the Principle of Equivalence relate to the alleged existence of black holes and does this Principle require the a priori presence of multiple masses?

In his book "The Meaning of Relativity" Einstein asserted that his Principle of Equivalence and his laws of Special Relativity must hold in sufficiently small finite regions of his gravitational field, and that these regions can be located anywhere in his "gravitational field".

Now we note that both the Principle of Equivalence and Special Relativity are *defined* by Einstein in terms of the *a priori* presence of multiple arbitrarily large finite masses and photons. It is therefore **impossible** for the Principle of Equivalence and Special Relativity to manifest in a spacetime that by mathematical construction contains no matter. But $Ric = 0$ is a spacetime that by mathematical construction **contains no matter!** Indeed, in the "Dictionary of Geophysics, Astrophysics, and Astronomy" we find the following remark,

“Black holes were first discovered as purely mathematical solutions of Einstein’s field equations. This solution, the Schwarzschild black hole, is a nonlinear solution of the Einstein equations of General Relativity. It contains no matter, and exists forever in an asymptotically flat space-time.”

Thus $Ric = 0$ violates the physical principles of General Relativity and so it is inadmissible and therefore has no physical significance. Since Hilbert’s solution is for $Ric = 0$ it is also of no physical significance because it is a solution for a spacetime that by mathematical construction contains no matter! But it is from Hilbert’s metric that the black hole was first conjured. Therefore, the black hole is not consistent with General Relativity at all. General Relativity does not predict the black hole. Since the black hole is a theoretical entity first obtained from Hilbert’s solution, the black hole **does not exist!**

Proof 3. The Principle of Superposition is a well known property of linear systems in physics. Does Einstein’s General Theory of Relativity adhere to this basic principle? That is, does General Relativity or black hole theory adhere to the Principle of Superposition?

The answer is an emphatic NO! The Principle of Superposition does not apply in General Relativity since Einstein’s field equations are highly nonlinear because when we attempt to solve his field equations for some supposed configuration of matter we are confronted with a set of nonlinear partial differential equations. Mathematically this simply means that if \mathbf{X} and \mathbf{Y} are separate solutions to the field equations then the linear combination $a\mathbf{X} + b\mathbf{Y}$, where “a” and “b” are scalars is **NOT** a solution.

Physically this means that one **cannot** pile up matter into any given spacetime (i.e. into any solution to Einstein’s field equations) to obtain additional masses, charges, photons, and electromagnetic fields as desired; but that is exactly what Einstein and his followers actually do as a matter of routine. We should also note that in Section 14 of his original paper, “The Foundation of the General Theory of Relativity” published in 1916, Einstein asserted that matter consists of mass and the electromagnetic field, and all this contributes to his ‘gravitational field’, even though there is not one iota of experimental evidence to suggest that electromagnetic fields and charges contribute to gravitation. Charge is implicitly included because electromagnetic fields cannot be present without charges in motion to produce them. Hence charge is included in the so-called Reissner-Nordström metric for a charged black hole allegedly obtained from an energy-momentum tensor that contains terms for a pure electric field but no mass term to carry the charge for the electric field, bearing in mind that there can be no charge without mass.

One cannot simply pile up masses and photons and charges and electromagnetic fields in any given spacetime because each and every proposed configuration of matter must be described by a corresponding energy-momentum tensor and Einstein’s field equations solved separately for that energy-momentum tensor. Now $Ric = 0$ is a spacetime that by mathematical construction contains no matter and so Hilbert’s solution describes a Universe that contains no matter. But the actual Universe contains a lot of matter, and since the Principle of Superposition does not apply in General Relativity one cannot insert matter into the spacetime of $Ric = 0$ and hence neither into Hilbert’s associated solution, to get any number of masses as one pleases. Thus, there can be no black hole in Hilbert’s solution and so there is no black hole in the spacetime of $Ric = 0$ by the very definition of $Ric = 0$. Thus, the black hole does not exist. But it is claimed that the black hole is contained in Hilbert’s solution by Einstein’s followers. This is clearly impossible.

Now let us assume for the sake of argument that $Ric = 0$ actually contains one mass, as Einstein (falsely) claims, so that Hilbert’s solution then describes a Universe that contains only **one** mass. Thus, the relevant spacetime is infinite and totally empty save for the presence of the mass of the alleged black hole. There is no meaning to a gravitational field outside the said mass in a Universe that contains only that one mass. All experiments show that gravitation is an interaction between masses. Now neither the Principle of Equivalence nor Special Relativity can manifest in a spacetime that allegedly, by mathematical construction, contains only one mass. And since the Principle of Superposition does not apply in General Relativity one cannot simply pile up masses and photons and charges and electromagnetic fields in the spacetime of $Ric = 0$, described by Hilbert’s solution, in order to obtain multiple masses, be they other black holes or other matter for the black holes to devour, or to have charged masses or electromagnetic radiation outside the alleged Hilbert black hole. Hence $Ric = 0$ and Hilbert’s solution violate the physical principles of General Relativity and are therefore once again inadmissible. Moreover, **ALL** alleged solutions to Einstein’s field equations for a black hole pertain to an infinite Universe that contains only **ONE** isolated mass, be it a “Schwarzschild” black hole (i.e. a Hilbert black hole); be it a charged black hole (i.e. the Reissner-Nordström black hole); be it a rotating black hole (i.e. the Kerr black hole); or be it the charged

and rotating black hole (i.e. the Kerr-Newman black hole). In ALL cases the Principle of Superposition does not apply in General Relativity and since there are no known solutions to Einstein's field equations for two or more masses and no existence theorem by which it can even be asserted that his field equations contain latent solutions for two or more masses, one cannot pile up additional masses and photons and charges and electromagnetic fields into the spacetime of any of these alleged types of black hole. Hence the Principle of Equivalence and Special Relativity cannot manifest in the spacetime associated with any of the types of black hole alleged and so they ALL violate the physical principles of General Relativity. Thus none can describe the actual Universe. It is therefore also utter nonsense to assert that black holes can exist in multitudes and interact with one another, be located at the centres of galaxies, collide or merge with one another, be components of binary systems, or exist with other matter that they can swallow and digest, despite the almost daily claims for the discovery of multiple black holes in the Universe and black holes and other matter in the Universe. Indeed, NASA recently posted a report on the World Wide Web that its people have discovered 2.5 million black holes; the claim is just plain poppycock. In addition, since General Relativity has only solutions for one mass, be they solutions cosmological or otherwise, General Relativity cannot account for the well established experimental fact that two fixed suspended bodies will approach one another upon release.

Proof 4. Is it true that Newton's expression for escape velocity appears in Hilbert's metric by means of a false analogy with Newton's theory, and that division by zero is permitted therein in violation of elementary mathematics?

Yes, this is indeed true. In Hilbert's metric with the speed of light c in vacuum and Newton's gravitational constant G written explicitly instead of the usual deceptive form where both c and G are set to unity, the following two terms appear:

$$g_{00} = \left(1 - \frac{2Gm}{c^2 r}\right) \quad g_{11} = \frac{-1}{\left(1 - \frac{2Gm}{c^2 r}\right)} \quad \text{where} \quad 0 \leq r < \infty$$

The quantity r has never been properly identified by the relativists, including Einstein himself. It has been variously and vaguely called a "distance", "the radius", the "radius of a 2-sphere", the "coordinate radius", the "radial coordinate", the "Schwarzschild r -coordinate", the "radial space coordinate", the "areal radius", the "reduced circumference", "the shortest distance to the centre", and even "a gauge choice: it defines the coordinate r ". In the particular case of $r = 2Gm/c^2$ it is invariably called the "Schwarzschild radius" or the "gravitational radius" for the "radius" of the event horizon of the black hole. In his paper "On a Stationary System With Spherical Symmetry Consisting of Many Gravitating Masses", published in October 1939, Einstein uses the Hilbert metric, written in the so-called isotropic coordinates, and continually and incorrectly refers to r as "the radius". This large number of different definitions of r attests to utter confusion amongst Einstein and his followers. Clearly neither Einstein nor his followers know what the quantity r is in Hilbert's metric. Now none of the foregoing various and vague concepts of r are correct because the irrefutable fact is that r , in Hilbert's version of the Schwarzschild and the Droste solutions, is the inverse square root of the Gaussian curvature of the spherically symmetric geodesic surface in the spatial section, which is easily proved by calculation, and so it does not denote any distance at all in Hilbert's metric and so it cannot ever be treated as a radius or a distance in Hilbert's solution, contrary to the practice of Einstein and his followers. Now, by incorrectly treating r as the radius the proponents of the black hole say that when $r = 2Gm/c^2$ the term $g_{11} = -1/(1 - 2Gm/c^2 r)$ in the Hilbert solution is "singular" because this term they say is then infinite. This is false, because "singular" is a deceptive term that really means undefined by virtue of the fact that at $r = 2Gm/c^2$ the term $g_{11} = -1/0$ and so involves division by zero, which is undefined, as any high school student knows. Nonetheless the proponents of the black hole permit division by zero and in this case they call $r = 2Gm/c^2$ the "Schwarzschild radius" or "gravitational radius" of a black hole, i.e. the "radius" of the event horizon of a black hole. But as we have also seen r is neither a radius nor a distance in Hilbert's solution, so the claim is again patently false. Then they say that at $r = 0$ the term $g_{00} = (1 - 2Gm/0)$ is "singular" and that it is then infinite and negative and the term $g_{11} = -1/(1 - 2Gm/0)$ is zero. This again actually means that the solution is undefined at $r = 0$ because the term $2Gm/0$ is undefined since it involves division by zero. Thus the proponents of the black hole permit division by zero twice when $r = 0$! Thus, they violate elementary mathematics once again and so the black hole is false. Furthermore, at $r = 0$ they claim that there is an infinitely dense point-mass "singularity". But Special Relativity forbids infinite density and hence General Relativity also forbids infinite density since you will recall that according to Einstein his laws of Special Relativity must hold in sufficiently small finite regions of his gravitational field. Now the infinitely dense point-mass singularity is an

oxymoron because a point is a mathematical entity that **by definition** has no extension! But a mass is not a point since it is not a mathematical entity but a physical entity that thereby necessarily has extension. Yet the proponents of the black hole nonsensically claim that there is an infinitely dense point-mass singularity for the black hole at $r = 0$ in Hilbert’s solution. In his book “The Theory of Everything, The Origin and Fate of the Universe”, Stephen Hawking says,

“The work that Roger Penrose and I did between 1965 and 1970 showed that, according to general relativity, there must be a singularity of infinite density, within the black hole.”

In their book “Tensor Geometry – The Geometric Viewpoint and its Uses” Dodson and Poston say,

“Once a body of matter, of any mass m , lies inside its Schwarzschild radius $2m$ it undergoes gravitational collapse ... and the singularity becomes physical, not a limiting fiction.”

In their book “An Introduction to Modern Astrophysics”, Carroll and Ostlie say,

“A nonrotating black hole has a particularly simple structure. At the center is the singularity, a point of zero volume and infinite density where all of the black hole’s mass is located. Spacetime is infinitely curved at the singularity. ... The black hole’s singularity is a real physical entity. It is not a mathematical artifact ...”

These claims are patently false because there can be no infinite density anywhere in Einstein’s gravitational field no matter howsoever it is alleged to occur because infinite density cannot be reconciled with the Special Relativity. Hence, the black hole is again false.

It is also important to note that infinitely dense point-mass singularities occur in Newtonian mechanics, where they are called “**centres of masses**” which are merely logical fictions or mathematical artifices, not real objects, as any engineer knows. Yet the proponents of the black hole, as we have seen, claim that they are **real physical entities**. Now one can go to the shop and buy a bag full of marbles. But if one went to the shop and asked to buy a bag full of centres of masses the shopkeeper would rightly think that his customer was rather odd to say the least. So we might well ask; where does that leave the proponents of the black hole?

In addition, solving the so-called “Schwarzschild radius” term $r = 2Gm/c^2$ for c we get

$$c = \sqrt{\frac{2Gm}{r}}$$

which we immediately recognise as Newton’s expression for escape velocity. Thus at the so-called “Schwarzschild radius” the proponents of the black hole claim that the escape velocity of a black hole is the speed c of light in vacuum. But Newton’s expression for escape velocity is an implicit two-body relation: one body escapes from another body: and so it **cannot** rightly appear in an expression that allegedly describes a Universe that contains only one body, but which is in actual fact an expression that describes a Universe that contains no matter at all by virtue of $Ric = 0$. Newton’s expression for escape velocity appears in Hilbert’s metric by means of an invalid analogy with Newton’s theory. Note also that in Newton’s expression for escape velocity the quantity r is an actual radius, but this is NOT the case in Hilbert’s metric. Indeed, it is NOT the case in any type of alleged black hole solution to Einstein’s field equations. Yet despite this irrefutable fact, the relativists always treat r as the radius in all alleged black hole metrics, and so their conclusions are all totally false.

The proponents of the black hole claim on the one hand that the escape velocity of a black hole is the speed of light c , in vacuum by virtue of the Newtonian expression for escape velocity, $c = \sqrt{2Gm/r}$ in Hilbert’s metric. But if that is so, then by the very definition of escape velocity, light can escape from the black hole. However, the very same scientists also claim on the other hand that nothing, including light, can even leave a black hole. This is a contradiction and so their arguments are patently false; nothing but a subtle play on the words “escape velocity”. Indeed, according to Chandrasekhar in his paper “The increasing rôle of general relativity in astronomy”,

“Let me be more precise as to what one means by a black hole. One says that a black hole is formed when the gravitational forces on the surface become so strong that light cannot escape from it. ... A trapped surface is one from which light cannot escape to infinity.”

“The problem we now consider is that of the gravitational collapse of a body to a volume so small that a trapped surface forms around it; as we have stated, from such a surface no light can emerge.”

In his book “The Theory of Everything, The Origin and Fate of the Universe”, Hawking says,

“I had already discussed with Roger Penrose the idea of defining a black hole as a set of events from which it is not possible to escape to a large distance. It means that the boundary of the black hole, the event horizon, is formed by rays of light that just fail to get away from the black hole. Instead, they stay forever hovering on the edge of the black hole.”

Taylor and Wheeler in their book “Exploring Black Holes - Introduction to General Relativity” assert that,

“... Einstein predicts that nothing, not even light, can be successfully launched outward from the horizon ... and that light launched outward EXACTLY at the horizon will never increase its radial position by so much as a millimeter.”

Thus, the notion of black hole “escape velocity” is meaningless, and owing to the contradiction in relation thereto the black hole again does not exist.

Notice also that Einstein’s followers say that there are two “singularities” in Hilbert’s solution, one at $r = 2Gm/c^2$ and one at $r = 0$. They say that $r = 2Gm/c^2$ denotes a “coordinate singularity” or “removable singularity”, which they “remove” by means of the complicated “Kruskal-Szekeres coordinates” since they incorrectly treat r in Hilbert’s solution as the “radius”, but they nevertheless retain it as the alleged “radius” of the event horizon of a “black hole”, thereby committing another contradiction by which the black hole is invalidated yet again.

Proof 5. Is the theoretical Michell-Laplace Dark Body associated with Newton’s theory a black hole?

Absolutely not, although it is also routinely asserted that the theoretical Michell-Laplace Dark Body of Newton’s theory, which has an escape velocity $\geq c$, is a kind of black hole or that Newton’s theory somehow predicts, according for example to Taylor and Wheeler in their book “Exploring Black Holes - Introduction to General Relativity”, “the radius of a black hole”. Hawking remarks in his book “The Theory of Everything, The Origin and Fate of the Universe”,

“On this assumption a Cambridge don, John Michell, wrote a paper in 1783 in the Philosophical Transactions of the Royal Society of London. In it, he pointed out that a star that was sufficiently massive and compact would have such a strong gravitational field that light could not escape. Any light emitted from the surface of the star would be dragged back by the star’s gravitational attraction before it could get very far. Michell suggested that there might be a large number of stars like this. Although we would not be able to see them because light from them would not reach us, we could still feel their gravitational attraction. Such objects are what we now call black holes, because that is what they are - black voids in space.”

In the “Cambridge Illustrated History of Astronomy” it is asserted that,

“Eighteenth-century speculators had discussed the characteristics of stars so dense that light would be prevented from leaving them by the strength of their gravitational attraction; and according to Einstein’s General Relativity, such bizarre objects (today’s ‘black holes’) were theoretically possible as end-products of stellar evolution, provided the stars were massive enough for their inward gravitational attraction to overwhelm the repulsive forces at work.”

In their paper “Astrophysical evidence for the existence of black holes”, Celotti, Miller and Sciamia say,

“In his famous article of 1784, which is seen as being the beginning of the story of black holes, John Michell wrote:”

“If there should really exist in nature any [such] bodies, . . . we could have no information from sight; yet, if any other luminous bodies should happen to revolve about them we might still perhaps from the motions of these revolving bodies infer the existence of the central ones with some degree of probability, as this might afford a clue to some of the apparent irregularities of the revolving bodies, which would not be easily explicable on any other hypothesis.”

“There at the very beginning, the theoretically-predicted properties of (Newtonian) black holes were discussed together with a carefully-worded statement about how it might be determined observationally whether such objects do in fact exist.”

In the “Dictionary of Geophysics, Astrophysics and Astronomy” one finds the following assertions,

“black hole *A region of spacetime from which the escape velocity exceeds the velocity of light. In Newtonian gravity the escape velocity from the gravitational pull of a spherical star of mass M and radius R is*

$$v_{esc} = \sqrt{\frac{2GM}{R}}$$

where G is Newton’s constant. Adding mass to the star (increasing M), or compressing the star (reducing R) increases v_{esc} . When the escape velocity exceeds the speed of light c , even light cannot escape, and the star becomes a black hole. The required radius R_{BH} follows from setting v_{esc} equal to c :

$$R_{BH} = \frac{2GM}{c^2}.$$

... In General Relativity for spherical black holes (Schwarzschild black holes), exactly the same expression R_{BH} holds for the surface of a black hole. The surface of a black hole at R_{BH} is a null surface, consisting of those photon trajectories (null rays) which just do not escape to infinity. This surface is also called the black hole horizon.”

According to Chandrasekhar in his paper “The increasing rôle of general relativity in astronomy”,

“That such a contingency can arise was surmised already by Laplace in 1798. Laplace argued as follows. For a particle to escape from the surface of a spherical body of mass M and radius R , it must be projected with a velocity v such that $\frac{1}{2}v^2 > GM/R$; and it cannot escape if $v^2 < 2GM/R$. On the basis of this last inequality, Laplace concluded that if $R < 2GM/c^2 = R_s$ (say) where c denotes the velocity of light, then light will not be able to escape from such a body and we will not be able to see it!

“By a curious coincidence, the limit R_s discovered by Laplace is exactly the same that general relativity gives for the occurrence of the trapped surface around a spherical mass.”

But it is not surprising that General Relativity gives the same R_s “discovered by Laplace” because the Newtonian expression for escape velocity is deliberately and inadmissibly inserted *post hoc* by the relativists into Hilbert’s metric in order to make it so. Newton’s escape velocity does not drop out of any of the calculations to Hilbert’s metric. Furthermore, although $Ric = 0$ is claimed to describe spacetime “outside a body”, Hilbert’s metric is nonetheless used to describe the interior of a black hole as well, since the black hole begins at the alleged “event horizon”, not at its infinitely dense point-mass singularity, said to be at $r = 0$ in Hilbert’s solution. We therefore see that the expression

$$r = \frac{2GM}{c^2}$$

is the radius at which light can escape from the theoretical Michell-Laplace Body associated with Newton’s theory, **not** the “Schwarzschild radius” of a black hole, and has nothing to do with the alleged black hole whatsoever. If

$$r < \frac{2GM}{c^2}$$

then the escape velocity of the Michell-Laplace Dark Body is greater than c for a fixed mass M and so light cannot escape from it, but that does not mean that light cannot leave it. Now the Michell-Laplace Dark Body is **not** a black hole. The Michell-Laplace Dark Body possesses an escape velocity, whereas the black hole has no escape velocity. Objects can leave the Michell-Laplace Dark Body, but **nothing** can leave the black hole; there is no upper limit of the speed of a body in Newton’s theory, so masses can always escape from the Michell-Laplace Dark Body, provided they leave at or greater than the escape velocity; the Michell-Laplace Dark Body does not require irresistible gravitational collapse, whereas the black hole does; it has no infinitely dense point-mass singularity,

whereas the black hole does; it has no event horizon, whereas the black hole does; there is always a class of observers that can see the Michell-Laplace Dark Body but there is no class of observers that can see the black hole; the Michell-Laplace Dark Body can persist in a space which contains other matter, including Michell-Laplace Dark Bodies, and interact with that matter, but the spacetime of the alleged black hole is devoid of other masses by mathematical construction and consequently cannot interact with anything. Thus, the Michell-Laplace Dark Body does not possess the signatures of the alleged black hole and so it is **not a black hole!**

Conclusion. From the foregoing analysis we can conclude without any doubt that the black hole is not predicted by General Relativity (or by Newton's theory) in any form whatsoever and since the black hole is allegedly a theoretical entity predicted by General Relativity we can conclude that the black hole does not exist. It is therefore no wonder that nobody has ever found a black hole anywhere despite the almost daily claims for black holes being found all over the place. The search for black holes has always been destined to detect nothing. Finally, it can be easily proven that General Relativity violates the usual conservation of energy and momentum and is therefore in conflict with experiment on a very deep level. Thus the black hole is again invalidated, as is the Big Bang Cosmology with its expansion of the Universe, and Einstein's gravitational waves. I will not present this proof now as it involves some mathematical calculations involving tensor quantities and Einstein's demonstrably invalid pseudo-tensor.

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