

Dialogue

Why Is There Gravity?

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Abstract: For thousands of years, humankind has pondered the questions: how did life begin on earth and where exactly did it come from? What happens after a person dies? Is there a “soul” that continues on? What truly gives humans the capacity for rational thought and free will? The answers may not be as difficult to ascertain as people believe. The question as to how life began on earth may require thinking in terms of high and low density. There is low-density material inside of us, which many of us refer to as sentient material, and through research I’ve discovered that sentient material is very likely near to a quintillionth the density of water on earth (i.e., 1×10^{-18} - 1×10^{-17} g/cm³). The sentient material inside of us has the capability of **using electrons** to operate our brain and nervous system. And this is how life has been trundling along on earth for billions of years!

Keywords: **Energy bits:** the very first “charged” material that formed from empty space condensing into multi-layered spatial matter with varying densities. **Energy particles:** the first particles of energy that formed from spatial matter of varying densities condensing into “complex” energy. **FEO:** First existing organism. The FEO is the first existing organism, what people commonly refer to as “God”. For *scientific reasons*, it’s better to consider “God” as the **PLF**—primitive life form—which is why the name will appear as well. **Matrix Particle:** The energy particle wherein “God” evolved from basic energy into “life” understood as sentient material. **LDEL:** Low-density environmental layer The LDEL is the upper (of two parts) region of the universe, commonly referred to as “Heaven”. **HDEL:** High-density environmental layer The HDEL is the lower (of two parts) region of the universe, where organisms can temporarily live in a high-density form.

INTERNAL BODY:

The internal body is made of low-density atoms. It has a density of near to .000001 to .000000001 g per cubic cm. Or, 1×10^{-6} to 10^{-9} g per cubic cm (*it’s most likely one-millionth the density of the external body. It’s also what sentient material uses to operate the far more dense external body*). Allow me to clarify here that there isn’t really “two” bodies inside of us, rather that all matter has different layers of density. The internal body is actually the “layer” of matter that’s just the right density for the sentient material to “latch onto/repel/interact with” in order to operate our far denser physical bodies. It’s also very possible that sentient material only interacts with material around the same density, meaning the internal body — continuing with the same concept — would truly be around 100 quadrillionth of a gram per cubic centimeter (1×10^{-17} g/cm³). However, it’s also possible that sentient material can influence with its energetic charge material of a higher density. Still, interacting directly with high-

density material would be a bridge too far. So, I’ve estimated the internal body to be around 1×10^{-6} to 10^{-9} g/cm³. It’s another way of stating the sentient material is interacting with low-density material, which then permits the interaction of higher density material. This is how the really low density sentient material is capable of operating a far denser/heavier bodily structure.

External body:

The external body is made of high-density atoms. It has an average density of around 1.048 g per cubic cm.

Autonomous Living Energy (ALE):

Autonomous Living Energy is my scientific term for what is commonly known as “sentient material.” ALE has one of the lowest densities in existence. It very likely has a density of near to a quintillionth of a gram per cubic cm. Or, 1×10^{-18} to 10^{-17} g/cm³ (*it’s most likely around one hundred quadrillionth the density of water*

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on earth at 1g/cm^3). The PLF is entirely composed of ALE, as all living beings, except the PLF is too large to inhabit an anatomic bodily structure.

ALE ID:

A special note on building the "ALE ID" or "Autonomous Living Energy Interfacing Device."

Please Read:

We can build an electronic device and connect to "god" in our atmosphere, the low-density organism (10^{-18} to 10^{-17} g/cm^3) being comprised of "sentient material" or what I refer to in books as "autonomous living energy" that is also within us, operating our nervous systems and brains. This ALE is who we really are and it can interact with electrons, moving them fractions of a meter (perhaps as little distance as a picometer). This is why building a ten millivolt device with a microscopic light would work to interact with "god" in our atmosphere. It's a viable solution. Help spread the word!

Spatial Matter (SPM):

Spatial matter is the **colorless** and virtually **invisible** substance that brings about the phenomenon of gravity, the orbits/rotations, and the suspension of all planets and other cosmological objects in the vacuum of space. It condensed to form all the energy in the universe, which was then condensed to make the matter in the universe. Its "highest" density is likely around .00001 to .000001 g per cubic cm. However, because there is so much spatial matter, it is actually very densely-packed together and pretty dang heavy/forceful as a bulk substance. It has different layers of density, which is why it condensed to make subatomic energy particles of different density.

One of those energy particles, of a density likely around 100 quadrillionth of a g/cm^3 , evolved into the first organism: God.

To read more about spatial matter, see:

Spatial matter is worth discussing in-depth to understand where everything in the universe originally derives. Modern science uses terms like "gravity" and "dark energy/matter" to express what I refer to as spatial matter (SPM), which is all around us. It originally came from condensed space (i.e. empty space or *nothingness*), which over a very, very long time became denser and denser charged material. Because of the way spatial matter formed, empty space condensing gradually over a long period of time, there are different levels of density for SPM. Its highest density is likely around .00001 g per cubic cm (approx. 1/100,000 the density of water) to .000001 g/cm^3 (approx. 1/1,000,000 the density of water). Planets and cosmological objects are more solid than spatial matter, so when they form planets, moons, and stars end up displacing the lighter spatial matter. Since spatial matter is densely-packed together in the vacuum of space, the planets and stars that form displace the spatial matter

because there isn't enough room to fit any of these massive objects. However, because planets and stars are far more solid, they easily displace spatial matter. Spatial matter trying to return to where it was and pushing toward the center of mass of objects (from these cosmological objects like planets and stars taking up room in the vacuum of space) effectuates gravitational fields, which are due to the densely-packed together SPM being directly and indirectly displaced by cosmological objects. Spatial matter will get displaced by these objects, then fight to return to its previously-held position in the vacuum of space, even squeezing through the atomic/subatomic interstices of these cosmological objects in order to get back toward the center of objects (the core). This effect also explains why the densest material is always at the core of cosmological objects, a result of the spatial matter driving dense materials (e.g. nickel and iron) toward the core along with it. That's also why the displacement of spatial matter causes *gravity* on cosmological objects, an effect of the spatial matter trying to reach the core of the object (getting back to where it was in space before the displacement occurred). Basically, we can just call that large mass of charged material in the universe that suspends all cosmological objects, effectuates rotations on axes, creates planetary orbits around larger cosmological objects like stars, and which also thankfully keeps people tethered to the surface of planet earth (and, sometimes, the moon): *spatial matter*.

Spatial Matter Precursor (SPMP):

Before spatial matter, there was only empty space in the vacuum of space. This empty space wasn't charged material. It's a precursor, and, by the empty space condensing, it will become a mixture of empty space and charged spatial matter comprised of energy bits. The chief distinction between spatial matter (SPM) and spatial matter precursor (SPMP) is the size of the particles. Once a spatial matter energy bit reaches the size of a zeptometer, it then becomes a "full-sized" energy bit of spatial matter, including holding a measurable charge. Spatial matter precursor is *not* charged material in part, as it includes bits of spatial matter that are smaller than a full size (1 zeptometer). These would include minibits, microbits, nanobits, etc. Spatial matter precursor includes empty space, which condensed, and, in doing so, became charged material, which I refer to as spatial matter. Spatial matter is responsible for gravity, orbits, rotations, and support (suspension) of all cosmological objects.

So,

what is spatial matter?

Spatial matter is all around us. It was here before anything else (except, of course, spatial matter precursor). Spatial matter is the **colorless** and virtually **invisible** substance that brings about the phenomenon of gravity, not only that but also a wide range of other phenomena later to be discussed. It has many layers of density, but its highest density is likely around .00001

to .00001 g per cubic cm. However, because there is so much spatial matter, it's actually very densely-packed together in the vacuum of space, and therefore pretty dang heavy as a bulk substance. We pretend we don't see it, and further that pretension by ignoring its forceful press on our bodies (keeping us tethered to the surface of planet earth). Still, it is everywhere around us. Spatial matter is extremely bulky, which makes it very heavy and forceful. Through different forces it can apply, spatial matter can hold up all objects in outer space, fasten all objects onto the surface of a large cosmological object, turn all cosmological objects so they rotate (i.e. spin on an axis), and can even carry smaller cosmological objects so they "orbit" larger cosmological objects. That's a lot of stuff for one substance to handle, yet spatial matter is certainly up to the task! On the other hand, spatial matter is one of the least solid substances in existence, which is good because if spatial matter were more solid or dense than the planets, moons, and stars, there'd be no room for anything of them. They wouldn't "fit" in the vacuum of space. Life wouldn't ever have been possible.

What are the four essential forces applied by spatial matter?

There are four *essential forces* that spatial matter can apply to objects in the vacuum of space. The first essential force can be called the *foundational force*. Because of light-years of spatial matter underneath the cosmological objects, there is enough material to outweigh the planets, moons, and stars, which allows spatial matter to support every cosmological object. This is what I refer to as the foundational force, which is truthfully what prevents cosmological objects from dropping directly downward in the vacuum of space. The second essential force is the *actual gravitational force*. When objects form in the vacuum of space, since they are more solid than spatial matter, a battle of displacement instantly begins to occur. The more solid stars, planets, and moons, invariably, push away spatial matter and displace it. However, spatial matter fights to return to where it originally was in the vacuum of space, which is what causes it to push toward the center of cosmological objects (i.e. toward the center of whatever object is causing the displacement). This pushing force is the actual gravitational force, which causes objects to fall within a larger cosmological object's "field of gravitation". The densest material will be pushed by spatial matter, attempting to return to where it was in the vacuum of space, toward the core of the planet, moon, or star, which is why the core is always the densest part of these objects. The actual gravitational force is the reason why the densest gases, just like the dense metal at earth's core, end up at the surface of the earth (the ecosphere/troposphere). Spatial matter, attempting to return to where it was, pushes the densest gases as far as it can, which is pretty much earth's surface. That's why the densest part of the atmosphere is the lowest layer. The third essential force

is the *rotational force*. The rotational force causes cosmological objects like the earth, the moon, and the sun, to spin on an axis. Spatial matter, unable to directly return to where it was in the vacuum of space -- after being displaced by these more solid objects -- is compelled by a great deal of spatial matter pushing back from every side, applying pressure essentially, to spin around the cosmological objects. The spatial matter even spins around within the cosmological object, in part aiding in the object's rotation but also partly slipping and squeezing through the subatomic interstices. Compelled by spatial matter that's tightly suffusing the entirety of the vacuum of space and applying a massive amount of pressure by just refusing to become displaced, and having no way to get directly back to where it was originally, spatial matter begins to twirl or spin around the object which has displaced it. This rotational force is what causes these objects to spin on their respective axes.

The fourth essential force is the *revolutionary force*. This is practically the same force as the rotational force, except that it's not spinning objects on an axis. Instead, the revolutionary force is carrying objects around other, bigger-sized cosmological objects. The other main distinction between the two forces is that the rotational force is effectuated by the same cosmological object that is being rotated. The earth is rotating because it (i.e. the planet itself) displaces spatial matter, which fights to return to its original position and in doing so spins around earth and causes the planet to rotate. The revolutionary force, contrarily, is never caused by the object that is revolving in the vacuum of space. The revolutionary force carrying a cosmological object is always effectuated by a *different and more massive* cosmological object, one that is a distance away. For instance, the sun has a revolutionary force, which carries the earth and all the other planets in our solar system around the sun. The revolutionary force is caused by the displacement of spatial matter, which will now, compelled by other spatial matter tightly filling the vacuum of space and applying force to it from every direction by refusing to move anywhere, have nowhere else to go and is forced to spin around the massive cosmological object known as our sun. Less massive cosmological objects get "carried" in one of many *divisions* of twirling spatial matter. There are many divisions, each traveling at different speeds, which is because spatial matter which is closer to the cosmological object has moved a farther distance (from being displaced) and consequently struggles harder to return to the original position it once held in the vacuum of space. It is analogous to pulling on a rubber band: the farther you move the ends apart, invariably, the faster it will attempt to return to its unstretched position, once you let go. Spatial matter is exactly the same way, so the further it is displaced from where it wants to be, invariably, the faster it will attempt to return to its former position. Unable to directly return because of the larger and more solid cosmological object, it now spins

around in the vacuum of space in revolution around the object, and the divisions of twirling spatial matter which are closer to the cosmological object (aside from spatial matter within the cosmological object that is slowed by the solid material of the object) will be compelled to orbit the fastest. These divisions of twirling spatial matter will carry planets, moons, and even stars, which orbit at the same speed as whatever division of twirling spatial matter they happen to find themselves inside of due to being caught like logs in a river current, perpetually carried around in circles. These are the **four essential forces** applied by spatial matter, and they are responsible for most of the phenomena which occur in the vacuum of space.

Which of the essential forces can the cosmological objects effectuate by displacing spatial matter?

The singular essential force cosmological objects can't effectuate (i.e. they have no control over) is very simply the foundational force. The foundational force is due to the fact spatial matter is the biggest substance in existence, outweighing all else, and, therefore, capable of supporting (preventing them from dropping downward) any cosmological object that forms in the vacuum of space. That aside, the other three essential forces are effectuated by every relatively massive cosmological object in space.

For example, the earth effectuates an **actual gravitational force**, a **rotational force**, and a **revolutionary force**. The actual gravitational force on planet earth is caused -- as I explain later on in more detail -- by the density and volume of the cosmological object. Based on these two factors spatial matter is displaced by the earth and must fight to return to where it was and in doing so pushes everything toward the center of displacement, which is the core of the earth. The effects caused by spatial matter pushing toward the center of earth is what I refer to as the "actual gravitational force". The earth also effectuates a rotational force. When the spatial matter can't get directly back to where it originally was in space, it doesn't have the option of staying backed up. There's too much pressure from a great deal of spatial matter suffusing the vacuum of space, and that massive volume of spatial matter will refuse to budge any further and push back. As it does, it pushes the displaced spatial matter around planet earth. This will cause the earth to rotate. Therefore the earth also effectuates a rotational force. Lastly, the earth not only directly displaces spatial matter, but also indirectly, as previously unaffected spatial matter is pushed away from where it originally was by spatial matter that was directly displaced by planet earth. This indirectly displaced spatial matter, in the same fashion, is now going to spin around the planet because of the great volume of spatial matter refusing to go anywhere. The indirectly displaced spatial matter that is spinning around planet earth has several divisions with varying speeds. Collectively, these divisions of twirling spatial

matter are what make up earth's revolutionary force. The divisions that are closer to planet earth, comprised of spatial matter which has been displaced a farther distance than that of farther away divisions, will orbit the earth the fastest. Due to the sun's revolutionary force, Mercury orbits the sun the fastest and -- due to spatial matter being less and less affected and displaced by the sun -- all the other planets orbit at a slower speed, based on distance from the sun. Even though spatial matter is of a relatively low density, there's no room for any cosmological objects, which is why a fearsome battle of displacement takes place and these universal phenomena occur.

What else can spatial matter do aside from affecting cosmological objects by applying the four essential forces?

1) Energy formation

Spatial matter forms into energy (**energy formation**) by condensing itself into denser and more complex charged material. It's likely the reason there are different types of energy (i.e. different charges: negative - "electrons" and positive - "protons") is due to the fact spatial matter is condensed in two different ways. One way spatial matter is condensed derives from it trying to push downward, yet due to resistance the "downward-pressing" SPM gets "backed up" and forms into denser and more complex energy (either positive or negatively charged energy). The other way spatial matter is condensed comes from when it resists against itself from below. The spatial matter resisting against the forceful weight of itself attempting to fall downward from above gets condensed, while putting up that resistance, which transforms it into denser and more complex energy (either positive or negatively charged energy). These bits of energy were used by the FEO to create the two environmental layers (HDEL and LDEL).

2) It can support its own weight

Due to light-years of spatial matter below any point in the vacuum of space, there will always be enough weight as a foundation of spatial matter (**foundational force**) by which to support itself (i.e. in higher places).

3) It can protect cosmological objects from being crushed by none other than itself

Spatial matter can prevent itself from crushing every cosmological object that forms in the vacuum of space by constantly providing an equivalent amount of force from below (**foundational force**), as a means of canceling out what would be a tremendous weight. That is to say, the weight of 10 billion light-years of spatial matter won't crush the moons, planets, or stars. The reason is because 10 billion light-years of spatial matter below is constantly providing an equivalent amount of force in resistance. For that reason, the moons, planets, and stars are safe from being destroyed by spatial matter, at least when it comes to being immediately crushed.

Why does light travel with different wavelengths?

The reason light particles have different wavelengths is due to how photons are interacting with the **charged spatial matter** found everywhere. Higher frequency photon particles more actively interact with spatial matter, disallowing a smooth ride through the SPM material, which is why higher frequency light particles have a “choppier” transmission through the medium of charged spatial matter. Higher frequency wavelengths are shorter, which indicates that the faster-oscillating particles of light (photons) are more actively interacting with spatial matter, resulting in shorter and choppier wavelengths. Contrastingly, the lower frequency photon particles won’t interact as much with spatial matter, allowing for a smoother transmission across the medium of charged SPM, which explains why lower-frequency wavelengths are longer and “smoother”. This process, understandably, can be termed—**photonic interaction**. Due to photonic interaction, we see colors and the same will be true of sound particles, which are affected in the same way by spatial matter, which is why the process is called **sound particle interaction**.

What are some of the densities of spatial matter?

SPM (.000001 – .00001 g/cm³)

(This spatial matter accounts for gravity, the rotation & orbits, and the suspension of all cosmological objects like earth, the sun, etc., throughout the HDEL.)

For more on the HDEL: <https://rytops1.wordpress.com/SPM> (1 trillionth – 1 billionth g/cm³)

(This spatial matter accounts for gravity, the rotation & orbits, and the suspension of all cosmological objects in the LDEL.)

For more on the LDEL: <https://rytops1.wordpress.com/SPM> (1 sextillionth – 1 quadrillionth g/cm³)

(This density of SPM condensed to make an extremely low density energy particle, which evolved over time into sentient material. Sentient material very likely uses this density of spatial matter to grow as an organism by converting spatial matter into sentient material. Though the spatial matter isn’t condensed, sentient material may be using the spatial matter to grow into a larger organism. This is analogous to life forms that are using high-density (HDEL)/low-density (LDEL) bodies eating food for the chemicals (e.g. ascorbic acid, fiber, protein, lipids, etc.) assisting with body development.

What role does spatial matter play in the way planets form?

Spatial matter is responsible for the way stars, planets, and moons form: all the densest atoms and molecules are pushed by spatial matter toward the center of a developing object, which forms the core. Every layer after the core is comprised of less dense material. The inner core is the most dense, then the outer core, inner mantle, outer mantle, crust, and then the layers of the atmosphere. Due to the magnificent forcefulness of spatial matter, planets and cosmological objects form with the densest material being forcefully pushed toward the center, and every layer after the inner core

being less dense, including the atmosphere. This process is called **cosmological object formation**.

Spatial matter presses fairly hard against the surface of any “massive” or “dense” object that is lodged in the vast, boundless expanse of outer space. It suspends planets, stars, asteroids, comets, hydrogen gases, free-roaming atoms & molecules, and all else in outer space. Otherwise, nothing would “float” or “travel” in the vacuum of space. Everything would simply fall directly downward and life wouldn’t be possible. Spatial matter is always crushing gases (O₂, N₂, Ar, H, He, etc.) toward the surface of planets with atmospheres, as well as ensuring all living organisms remain connected to a planet’s surface. This actually is conducive to life, as gravity (spatial matter) smooshes O₂ toward the surface of the planet, where most living organisms exist and can breathe in the oxygen-rich air. The higher a person goes on planet earth, the less air pressure there is because there is less of the heavy gases. According to Wikipedia, “Three quarters of the atmospheric mass resides within the troposphere (the lowest part of the atmosphere).” This is because spatial matter presses all the heavy gases toward the surface, so there are less atoms and molecules at higher elevations.

The reason spatial matter doesn’t press all molecules and gas toward the surface is due to the fact that atoms & molecules are more **solid** than spatial matter. Therefore, being less heavy and yet more solid, these molecules can float in the upper atmosphere rather freely. This is the same effect as birds flying through air: they are light and solid, so they glide through the sky. Think of floatation devices floating on top of the ocean. Floatation devices are more solid than water, but are far less heavy. In the same way, solid atoms and molecules, which are lighter than spatial matter below, will float in the upper atmosphere or outer space. However, most of the dense, heavy gases will be pressed against the surface of the earth. So most of the “atmospheric mass” is found in the lowest part of the atmosphere (troposphere). This pushing effect by spatial matter explains why the center of the earth is made of extremely dense and heavy iron, and every layer above the core is less and less dense. The same is true for the atmosphere; heavier gases are pressed by gravity (spatial matter) toward the surface. The layers of atmosphere get less and less pressurized and dense (because less gases are found in each higher-up layer) the higher the atmosphere goes toward outer space. If you wish to do the research, there are the following layers of atmosphere: troposphere, stratosphere, mesosphere, thermosphere, and exosphere.

Why doesn’t the moon have an atmosphere?

If you read below, I’ve made a term for spatial matter that relates to this question. The term is “**strength of gravity**,” and it can be defined as: a certain amount of spatial matter that is generating a general effect of gravity. The moon’s strength of gravity isn’t enough to force the gases toward the moon’s center of mass,

though there is definitely some spatial matter pushing toward the moon's core from every side in accordance with pressure. This observation automatically indicates that a certain amount of spatial matter (i.e., a specific "strength of gravity") is required for a cosmological object to maintain an atmosphere.

What is the significance of spatial matter?

Spatial matter is **colorless** and virtually **invisible**. At all times spatial matter is around us, and we feel its effect in the form of gravity. We can only "faintly" see spatial matter, but we can observe its effect of gravity on material through earth's gravitational field, which is caused by spatial matter smashing against the earth (heading toward the center of mass). Spatial matter is extremely bulky, heavy, and forceful, so it can suspend heavy objects like planets, stars, moons, asteroids, comets, and lighter material like hydrogen and helium gases. But it is one of the least solid substances in existence. It is very easily displaced, and yet will desperately attempt to return to its former position in outer space. This struggle of spatial matter trying to return to a previous "spot" held in space is what allows for gravity, and is also responsible for the spinning of cosmological objects on an axis. The indirectly displaced spatial matter, on the other hand, is responsible for the orbiting of moons around planets and also planets around stars. The difference is that some spatial matter is displaced, because two things cannot occupy the same place (basic science). However, "directly" displaced spatial matter then pushes against and displaces other spatial matter that becomes "indirectly" displaced by the cosmological object. For instance, the sun's massiveness has directly and indirectly affected spatial matter for billions of kilometers. The "indirectly" displaced spatial matter stretches to cosmological bodies on the other side of the solar system. The Sun can displace up to 1.412 quintillion cubic kilometers (volume of sun) of spatial matter, but the "directly" displaced spatial matter will only fill up a space equal to the sun's radius (696,000 km) on every side. There are still well over 100 million kilometers of distance required just for that spatial matter to affect the earth. And yet the earth orbits around the sun, which proves that the "directly" displaced spatial matter isn't causing the orbiting of earth around the sun. Therefore, the "indirectly" displaced spatial matter is causing the orbit of earth. Further, the spatial matter displaced indirectly by the sun stretches farther than earth, at least to Pluto. Neptune is 4.5 billion kilometers away, which indicates that the indirectly displaced spatial matter (what I refer to as Zone 3 of a gravitational field) can stretch far beyond the cosmological object. Later on, I explain why the "indirectly" displaced spatial matter causes the earth to orbit the sun. I'll also explain why Mercury orbits the sun the fastest, and the rest of the planets are orbiting at a slower rate of speed. At any rate, this is a general overview of spatial matter and how it is affecting things in the universe!

Why do planets, moons, and stars spin on their axes?

Spatial matter is extremely heavy and forceful. It can suspend entire planets and other cosmological objects in the vacuum of space, using its **foundational force**. However, all material that is tangible to humans is more solid than spatial matter (in fact, everything is more solid than spatial matter except empty space, and the FEO/PLF to a certain extent, since it condensed to make all forms of energy/matter, including "God"). Therefore, spatial matter is constantly being displaced by more solid objects, such as planets, stars, moons, gases, etc. Spatial matter will attempt to return to its "previously-held" position, though, which effectuates many effects in the universe. One of these effects is gravity, another is the spinning of planets/stars on axes, another is the orbiting of planets/moons around stars (as well as all orbits), all of these occurring when spatial matter is displaced by cosmological objects. As an analogy of solidness, the human body and standard ocean water are about the same density (near 1 g/cm³). The human body, however, is more **solid** than water, which is why our bodies displace water. Planets, moons, and stars displace spatial matter in the vacuum of space because they are **more solid**. However, spatial matter (all around the vacuum of space) is heavier and vigorously attempts to return to its originally-held position, and, in doing so, spins planets, moons, and stars. Spinning on an axis is due to spatial matter turning in the vacuum of space, attempting to restore itself, but since it can't ever accomplish such a feat with more solid objects getting in the way, it perpetually spins around planets, moons, and stars, and even spins the cosmological objects themselves, which is why the effect is called the **rotational force**. This might explain why the earth rotates from west to east, or counter-clockwise, and the moon, as well, orbits the earth in a counter-clockwise fashion. It's definitely due to the charged material (i.e. spatial matter) revolving in a counter-clockwise fashion in the vacuum of space. Since a great amount of spatial matter has been displaced, it will desperately attempt to return to its original position in the vacuum of space. In doing so, gaining help from other spatial matter above or below, as well as all around, applying pressure, the displaced spatial matter attempting to regain its originally-held position, heavier than these objects when considered as a bulk unit of spatial matter, effectuates the spinning of these objects on axes.

Why do neutron stars spin 642 times per second?

Because neutron stars are so dense, they push out a considerably greater amount of spatial matter from Zone 1 (see my diagram below). The spatial matter would otherwise squeeze through the atomic/subatomic interstices of a less dense object and reach the core. Since neutron stars are so dense (hundreds of trillions of grams/cm³), they will displace a greater amount of spatial matter by taking up room in the vacuum of space, more so than a less dense object like earth. The

density of a neutron star, disallowing spatial matter to get back to where it was in the vacuum of space, causes an extreme amount of spatial matter to become displaced. The force from all of that displaced spatial matter trying to return to its previously held position in the vacuum of space causes the neutron stars to spin extremely fast. Since the speed of revolving spatial matter also concerns orbits, any object found in Zone 3 of the gravitational field of a neutron star will also revolve extremely fast around the relatively small, yet dense star.

I've set up a diagram and marked the different areas where SPM is displaced by any cosmological objects. In the diagram, the areas are split up into three different zones, including Zone 1, Zone 2, and Zone 3.

The diagram can be seen here (picture 2):

In my diagram, I consider the area where spatial matter is squeezing through the atomic/subatomic interstices of the cosmological object to reach the core as Zone 1. The spatial matter that is directly at the surface of the cosmological object and cannot get any further is considered Zone 2. The spatial matter that is indirectly displaced by the spatial matter originally displaced by the object is labeled as Zone 3. Again, since the Zone 1 of a neutron star is so densely packed with neutrons, a great amount of the spatial matter is pushed outward into the vacuum of space, creating a massive force seeking to return the displaced spatial matter back to its original position (where the neutron star is). The result is that neutron stars are spun by spatial matter at speeds of up to 642 revolutions per second.

Why do neutron stars potentially have atmospheres only micrometers thick?

Since so much spatial matter is pushed out of a neutron star's Zone 1 (in reference to the 3 Zones of each gravitational field), it will urgently seek to return to where it was in the vacuum of space. In fact, neutron stars are trillions of times denser than earth. That means, the spatial matter that is around the neutron star (attempting to reach the core/center of mass) is exponentially more voluminous and for that reason exceptionally driven to return to where it was before being displaced by the orbiting neutron star, which is orbiting around its respective galaxy. That massive amount of spatial matter that was both directly and indirectly displaced by the dense orbiting neutron star, will push so hard at the surface of the neutron star, squeezing through the atomic/subatomic interstices, and whatever can't get through the surface will crush everything against the neutron star's crust. So, the atmosphere of a neutron star might only be micrometers thick. On earth, the spatial matter smooshes the O₂ to the surface of the planet (toward the ecosphere), and the atmosphere is kilometers high. The earth displaces a great deal of spatial matter directly and indirectly, but due to an average density of 5.5 g/cm³, the earth doesn't push out nearly as much spatial matter from

Zone 1 of earth's gravitational field. There isn't such a great amount of spatial matter crammed into a very tiny space, as there is with a relatively small neutron star (which pushes out a tremendous amount of spatial matter for being just 520 km³), and so the conditions are amenable on earth. Attempting to inhabit a neutron star would be impossible, because not only would the gravity be trillions of m/s² (as opposed to an agreeable 9.8 m/s²), but there would also be no air to breathe since all the gases become flattened to a micrometer high atomically cattywampus mess. To put it lightly, the surface of a neutron star isn't exactly a place suitable for raising a family. That notwithstanding, their extremely high densities automatically make them fascinating and intriguing cosmological objects.

Why don't all the planets/stars drop to the southern region of space?

In order for objects to be suspended in space, there needs to be enough material beneath them to support their weight. That "heavy" material is actually many light years of spatial matter supporting everything you see in our universe.

In other words, Earth and all cosmological objects are prevented by spatial matter from suddenly falling out of orbit toward the southern region of space. It will always be that way unless there's a great amount of momentum or additionally applied force attributed to these objects. Objects in outer space are really like buoys residing at the bottom of a lake. Too much water above the buoy holds it down and therefore it won't float in the water, which is analogous to why the planets and stars won't ever float upwards in the vacuum of space, at least not beyond what their orbital momentum allows, because spatial matter (though not solid enough to stop them completely) above them weighs down and prevents anything from going beyond a certain point. Meanwhile, the spatial matter that is below each cosmological object would be analogous to the solid ground of the lake, which will prevent that said buoy from falling any further. Except, again, the "low" solidness of spatial matter is what makes for a very strange "floor" holding up objects in the vacuum of space. That's why it's easier for objects to fall through spatial matter than through the ocean floor. Spatial matter is anywhere from a thousand to a million times less dense than water on earth, and yet is bulky enough to support all objects in space.

In other words, the weight of spatial matter must be incredibly heavy when considered as a bulk unit. Space stretches on indefinitely in all directions, and it's filled with spatial matter. Perhaps the exact weight of different amounts of spatial matter can even be decided on through studying its effect of gravity, and, as we know, gravity in black holes can crush objects. Gravity on a planet, moon, or star is spatial matter that's pressing against an object in the vacuum of space from all sides. Therefore, spatial matter is heavy and forceful

enough to ensure that any object remains on the surface of a planet or moon. Spatial matter must then be extremely bulky, heavy, and forceful, which is why I've stated its peak density is between .00001 to .000001 grams per cubic centimeter. Otherwise, objects in the vacuum of space wouldn't float, spin, orbit, or do anything else, except drop like cannonballs because of being heavier than spatial matter below. By that reasoning, spatial matter considered as a bulk unit is perhaps one of the most heavy substances in existence. So, the reason objects appear to "float" in outer space is due to the great amount of spatial matter existing below all cosmological objects. Spatial matter supports everything in existence and is the primary reason anything actually exists at all (but that's a different discussion).

What is gravity?

The two factors of gravity:

According to scientists, the more "massive" and "dense" an object is in the vacuum of space, the more gravity it will have in its gravitational field. But what are the factors that play into that gravity? Why do objects fall faster on certain planets than others? There could actually be two different factors that ultimately determine why things fall and how fast they fall in a gravitational field.

Strength of gravity:

The *strength of gravity* is an expression of the "amount of spatial matter" that is generating an effect of gravity. An object's **mass** will determine the amount of spatial matter affected by the object and therefore creating a gravitational field. The volume will generally tell us how much spatial matter was displaced based on the volume of the cosmological object, but since spatial matter has such a low level of solidness ("0 to 100 millionths" on my scale) it will squeeze through the atomic/subatomic interstices and reach the core in that fashion. Therefore, the density of the cosmological object will tell us how much of the spatial matter is being displaced in Zone 1 (see my diagram). Altogether, since both the volume and density of the cosmological object tell us how much spatial matter was displaced by the cosmological object (directly and indirectly), the strength of gravity is really a factor of **mass**.

The more massive an object is, it will create a more profound effect in spatial matter, meaning more spatial matter has been displaced directly, but also indirectly by the solid object. The more "directly" displaced spatial matter, the greater the amount of spatial matter there'll be "indirectly" displaced by any given cosmological object. Since the sun has an enormous mass, the length of the indirectly displaced spatial matter stretches beyond Neptune (4.5 billion km). That's a lot of displaced spatial matter! The "strength of gravity" for each cosmological object can therefore be determined by considering the gravitational field created by any given object and studying that object's

mass. The strength of gravity ensures that objects on a planet's surface will stay connected to that planet. If objects lift and leave a moon's or planet's surface, but are still inside of the gravitational field of the cosmological object, they will be promptly returned to the object's surface. Anything on a given planet or other cosmological object will constantly feel the strength of gravity, the forceful weight of a great amount of spatial matter pressing down on them at all times. We're all well aware from living on earth that such an effect is forgotten over time and ignored because it becomes a normal part of existence. However, when astronauts leave and then return to planet earth, they definitely feel earth's strength of gravity again. In free-fall, they're constantly falling (just like being inside of a fast-moving elevator and experiencing weightlessness), and so they don't feel the direct application of earth's strength of gravity. At least not while they're inside the space shuttle or space station. On the earth's surface, the astronauts will feel the direct application of force from spatial matter again. All of these factors are collectively what I ultimately refer to here as the "strength of gravity", which again is produced by a great amount of spatial matter being applied forcefully to a large and heavy object. The strength of gravity can aptly be defined as: a certain amount of spatial matter that is generating a general effect of gravity.

Power of gravity:

The *power of gravity* is the "urgency" of the spatial matter that has been displaced by a cosmological object to return to its former position. Spatial matter will more urgently seek to return to its former position, if a greater amount of spatial matter within a smaller area is displaced. The acceleration of gravity can be greatly increased, as well as the rate of speed that a cosmological object (e.g. a neutron star) rotates, if a greater amount of spatial matter within a smaller area is displaced. **Density** determines the amount of spatial matter that has been displaced by a cosmological object in Zone 1 of the gravitational field. The "power of gravity" for each cosmological object can therefore be determined by considering the gravity created by any given object and studying that object's density. A fairly dense cosmological object like planet earth will force a good deal of spatial matter out of Zone 1 of the gravitational field (see my diagram), which will now urgently push back toward the center of mass from every side of the planet. The amount of spatial matter that's pushed out of Zone 1 will greatly affect the cosmological object's acceleration of gravity. Less dense cosmological objects, such as earth's moon, force out less spatial matter from Zone 1 of the gravitational field, and that's one of the reasons objects fall more slowly toward the moon's surface. There is less spatial matter "directly" displaced by the moon's density than earth's, which lowers the moon's acceleration of gravity. There will obviously also be less spatial matter "directly" displaced by the volume of the moon, since the moon is 1/50th the volume of earth. The lower

density and volume are why the moon is less *massive* than earth. Therefore, the moon also has a lower “strength of gravity”, meaning less spatial matter is generating a general effect of gravity. In fact, because the moon’s strength of gravity is so low, there isn’t enough spatial matter to force molecular gases toward the moon’s surface, which is why it doesn’t have an atmosphere. Returning to the point, the “power of gravity” is an expression of the urgency of spatial matter to be restored to its former position in space.

Why does gravity have different acceleration speeds based on an object’s location?

In order to answer this question, I’ve set up a diagram and marked the different areas where SPM has been displaced by these cosmological objects. In the diagram, they are split up into three different zones, including Zone 1, Zone 2, and Zone 3.

When cosmological objects form in the vacuum of space, they are more solid than spatial matter and so will displace it. The spatial matter is displaced by the more solid cosmological object, and from three different zones is trying to get back to where it was originally located in the vacuum of space. In Zone 1, the spatial matter is squeezing through the atomic/subatomic interstices and is getting to the core. The acceleration of gravity is slowed in this area because the spatial matter hasn’t moved that far yet. It’s squeezing through the atomic/subatomic interstices and reaching the core (or trying to get to the core/center of mass). In Zone 2, the spatial matter that can’t get past the surface of the cosmological object is amassing at the object’s surface. The spatial matter in Zone 2 has the highest acceleration of gravity. The reason is because the spatial matter in Zone 2 has not only been directly displaced by the cosmological object, but also has moved *the farthest* from where it was in the vacuum of space, and is desperately seeking to return to the core/center of mass. Of all the spatial matter directly displaced by the object, spatial matter in Zone 2 has been displaced the farthest, which is why the gravity is the most accelerated in Zone 2. In Zone 3, there is a slowing down of the acceleration of gravity. The spatial matter in Zone 3 has been *indirectly* displaced by the cosmological object. The spatial matter that has moved dramatically from where it was, pushed further into the vacuum of space, will now displace (in an exponentially attenuating fashion) other spatial matter, as the entire vacuum of space is densely packed with this material of very low solidness/density. The spatial matter in Zone 3, moving less of a distance from its original position in the vacuum of space, is less “eager” to get back to where it originally was and so the acceleration of gravity is slower in Zone 3.

Why do objects fall at 9.8 m/s² in earth’s gravitational field?

We all know that objects, whether weighing a million pounds or just a few, will fall at an acceleration of 9.8 m/s², as long as they’re only a few kilometers above the earth’s surface. And yet, scientists haven’t figured out exactly why it is that this occurs. Why do objects accelerate, rather than fall at the same speed, as they drop toward the ground? The answer is actually that since falling objects are more solid than spatial matter, as they build momentum it becomes easier and easier for them to *displace the spatial matter below*, which, if the objects were light enough, would actually support them entirely. As objects gain momentum, they also gain force as established by Newton’s law ($F = M * A$). So, since objects become more forceful, they displace spatial matter below easier, which is why they accelerate rather than fall at a constant speed toward the ground. Here’s an example. Imagine a bowling ball were dropped off a rooftop. When the bowling ball is first let go of, there is spatial matter below attempting to support the ball’s weight. Of course, spatial matter is only going to be displaced by the ball due to the fact it is far heavier than the spatial matter directly below. As the ball gains momentum, it displaces spatial matter faster because it can apply a greater force. Since it’s more forceful, as it gains speed, the ball can increasingly push harder on spatial matter below, displace it faster, and therefore travel faster toward the ground. If the ball couldn’t displace spatial matter at a faster rate, rather just at the same pace, it would drop at a constant speed. However, since it gains increasingly more forceful, it also cuts through spatial matter below at a faster rate. This rate is expressed by the gravitational field, which can be measured from different heights with the formula: $gh = go (re/re + h)^2$

What is a Black Hole/Astral Vortex?

Black Holes or **Astral Vortices** are extremely large funnel shapes of spatial matter that have formed in the vacuum of space. They were created by displacement of spatial matter in such a way that a funnel shape was generated in the vacuum of space. Often this is the result of a supernova, which means that a large enough star (a very big star displacing an enormous amount of spatial matter) exploded and the spatial matter that was displaced by the cosmological object will now rush toward the center of mass. However, there are already several currents (divisions of twirling spatial matter) twirling around in the vacuum of space, due to being backed up by the massive star and being pushed forward from spatial matter densely packed together in the vacuum of space. When the star explodes, instead of rushing to fill the space right away, the spatial matter continues to twirl around and since there’s no star anymore, a powerful funnel shape is formed in the vacuum of space. Whenever a giant funnel shape is created in spatial matter, the result is an **Astral Vortex** phenomenon.

Smaller stars, on the other hand, don't have as much spatial matter twirling around them and won't displace as much spatial matter by their presence in the vacuum of space. Therefore, when a smaller star dies, a smaller gap is created in the vacuum of space, and the spatial matter can more easily restore itself and simply refills the empty space, which is why a black hole phenomenon doesn't occur. A large enough star, 8 – 50 times the mass of earth, generates greater currents of "backed up" spatial matter swirling around the object, and is large enough to explode and create a giant "gap" in the vacuum of space. That's why an enormous vortex is formed, and a black hole phenomenon occurs.

How can spatial matter be heavy enough to effectuate gravity, yet not be heavy enough to crush objects in space (e.g. planet earth, the sun, etc.)?

The spatial matter attempting to return to where it was in the vacuum of space and therefore striving toward the center of mass of cosmological objects accounts for gravity. For example, planet earth has a lot of spatial matter trying to return to its core/center of mass. Since earth is dense, a lot of spatial matter is forced out of Zone 1 of its gravitational field. That's why there is an acceleration of 9.8 m/s^2 for planet earth. Gravity on earth is comparable to Saturn, which is 95 times more massive (yet far less dense). Saturn is massive, which is why a lot of spatial matter is displaced by the planet, enough to make Saturn's acceleration of gravity 10.44 m/s^2 . However, Saturn is far less dense than earth, so the planet forces out far less spatial matter in Zone 1 of its gravitational field. This is why the two cosmological objects have a similar acceleration of gravity, yet are vastly different sizes. In black holes, there is enough displaced spatial matter to literally crush objects into subatomic particles. So, if there is a lot of spatial matter above us (far more than is seen in a single black hole), why doesn't all of that weight simply crush all the planets, moons, and stars? The answer is the spatial matter is canceling itself out. The massive downward-pressing force of spatial matter, which would otherwise crush the planets, moons, and the sun, will be met with an equally massive upward-resisting force of spatial matter (from light-years of spatial matter below). There is an equilibrium struck, so everything is in a balance. However, when spatial matter is displaced, it can no longer balance itself out. There is a small portion of spatial matter that has been displaced by cosmological objects and is seeking to return to where it originally was in the vacuum of space and will be felt as gravity. Only a small portion of spatial matter is pushing toward cosmological objects, at least when compared with the light years of spatial matter all over the vacuum of space. However, when spatial matter isn't displaced, such as the many light years of spatial matter above the planets, stars, moons, etc., spatial matter resisting from below will meet it face-to-face and cancel out the immense weight. That's exactly why the material universe is safe from a huge amount of spatial matter!

Why do the planets orbit the sun?

There is a great deal of spatial matter above and below the planets and the sun. So there is a great downward-pressing force from spatial matter above the planets and the sun, and there is a great upward-resisting force from spatial matter below the planets and the sun. Along with those forces, the sun has displaced a great deal of spatial matter, some of it that is directly displaced by the sun and some of it that is indirectly displaced. The indirectly displaced spatial matter is seeking to return to where it was in the vacuum of space. With nowhere else to go, spatial matter will spin around the sun, as it attempts to get to the core of the object (the center of displacement). Spatial matter wants to reestablish itself to a normal condition (not being displaced), but the gargantuan sun takes up a huge amount of room in the vacuum of space and displaces a great deal of spatial matter. The spatial matter is so desperate (due to being densely packed in the vacuum of space) to return to its original position, and to no longer be backed up, that it will spin around the objects that displace it. That's why the planets orbit the sun, and why the moons orbit around the planets, due to the spatial matter moving around these large cosmological objects.

Why do the closest planets to the sun orbit the fastest?

Since the sun is massive, it displaces a great amount of spatial matter both directly (which will cause gravity on the sun's surface) and indirectly (which causes planets to orbit the sun). The farther you get from a cosmological object, the spatial matter will actually have been moved a shorter distance because it is less affected by the cosmological object taking up room in the vacuum of space (which is tightly suffused with spatial matter). The further spatial matter gets moved, the greater force it will apply when trying to get back to where it was. The planets that are closer to the sun, carried by spatial matter that is more "eager" and "forceful" because it has been displaced the farthest distance from where it originally was in the vacuum of space, will now orbit the fastest. The spatial matter that is closer to the sun, having been affected more by the sun's presence, is more urgently trying to restore itself to the former position, so it orbits faster around the sun. It carries Mercury at a rate of 29 miles/sec. Further away, the spatial matter has been displaced an exponentially lesser distance from where it originally was in the vacuum of space. The formula $gh = g_0 (r_e/r + h)^2$ is an expression of that exponentially attenuating gravitational field, which is because spatial matter has been less and less affected or "displaced" by the cosmological object.

Why does the sun orbit the Milky Way galaxy faster than the planets orbit the sun?

The star that was larger than our sun, prior to dying, formed in the vacuum of space and in doing so displaced spatial matter so that it formed divisions of twirling spatial matter around the object. These

divisions of twirling spatial matter have varying orbiting speeds based on how far spatial matter has been displaced. Since the star that created these divisions of spatial matter was larger than the sun, there is more spatial matter displaced by the more massive star and it will have been displaced a greater distance. These currents of spatial matter (divisions of twirling spatial matter in orbit around the massive star) are moving faster than the divisions of twirling spatial matter that are orbiting around earth's sun. This is the reason why Mercury travels around the sun at 29 miles per second (46,661 m/s), and the sun orbits around the Milky Way galaxy at near to a thousandth of the speed of light (220,000 m/s). The spatial matter was displaced by the massive star and moved so far from where it wants to be, it's traveling near a thousandth of the speed of light to restore itself (compelled by vast amounts of spatial matter applying force from all four directions and aiding in inducing the currents). What's more, the gap created by the massive star's death (supernova) left a massive black hole. Since the displaced spatial matter has already gained great momentum, after years of twirling around the massive star, it has no way of slowing down and filling such a large space, generating a black hole. At any rate, a larger star than earth's sun displaced a greater amount of spatial matter and moved it a greater distance, so spatial matter is orbiting around where the massive star was in space before exploding apart (supernova) at a faster rate. That's why earth's sun orbits the Milky Way galaxy faster than the planets of our solar system orbit the sun.

Is spatial matter positively or negatively charged?

In the beginning, there was empty space. The nothingness filled the entire vacuum of space, however there were at least two forces happening. There was nothingness (empty space) applying a downward-pressing force, and also there was nothingness (empty space) applying an upward-resisting force, as well. For the sake of postulating, the downward-pressing force may have condensed empty space into a positively-charged bit of energy, and the upward-resisting force may have condensed empty space into a negatively-charged bit of energy. These positive and negative bits of energy will make a composite that is a layer of spatial matter at a certain density. The earliest bits of energy to form will make a thin layer of spatial matter that could be as low as 1 sextillionth of a g/cm³, and it will be a composite of positive and negative bits of energy. There will be several layers of density for spatial matter, including the ones listed in the answer of the question: What are some of the densities of spatial matter?

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