



# The Motion Field Of Mass Is Gravity

Debjyoti Deoghuria

## Abstract:

Mass itself does not create gravity. The motion of mass creates a motion field around mass; this field is gravity, which can bend light and attract other objects.

If a 50 kg stone is rotated at high speed, a motion field will be created around it, which can bend light and attract other objects.

On the other hand, if the same weight stone is at rest, the light will not bend and will not attract other objects.

Therefore, the motion field is the main cause of light bending or lensing. Even experiments show that high-velocity particles can cause gravitational lensing. Such as, neutrino beam.

Furthermore, space is not curved by any external influence. Space is independent, while mass and momentum depend on space, and gravity depends on mass and momentum. Hence, gravity is simply the result of mass and momentum and not a fundamental force on its own.

Importantly, gravity does not require two objects to exist; a single moving object can generate gravity. Even gravitational effects can be observed due to moving objects in space.

Finally, if there is no mass, gravity is created if there is motion. Example – photon. So it is proven that motion is the main source of gravity.

## Key word:

Static mass cannot create gravity, gravity is the reaction of motion field.

## Introduction:

Moving mass itself creates gravity. Because when an object moves, it creates a field of attractive force around it. The gravitational effect is also seen in photons, which have no mass but have motion. Therefore, motion is the main condition for the creation of gravity.

Without motion, there is no energy:

Energy = the ability to do work.

To do work, we have to change position.

Therefore, without motion, there is no energy.

No energy is created without motion, because mass alone does not create energy. Even potential energy itself is created due to motion. So all energy is generated, changed or transformed in every object due to motion. This is proven and observable.

- Kinetic energy is a direct result of motion.
- The motion of electrons is a source of electrical energy.
- The motion of particles is a source of thermal energy.
- Nuclear fission and fusion are not possible without motion.
- Light energy itself is dependent on motion, because photons themselves are in motion.
- In the case of photons,

$E = hf$ , depends on frequency.

That is, first, motion, then energy.

- Even potential energy is generated through motion.

Potential energy =  $mgh$ ,

$m$  = mass,  $g$  = gravitational acceleration,  $h$  = height.

But how did ( $h$  = height) go up? That is, motion is required to lift an object. This motion creates potential energy.

Example:

- If a stone is lying on the ground, its stored energy is zero. But the stone is lifted; it requires motion. Without motion, the stone cannot move up. As a result, potential energy will not be created. Therefore, motion is required to create potential energy.
- Even when a spring is pulled or compressed, energy is stored. Here, too, motion plays a major role in pulling or compressing the spring.

Therefore, mass is never energy. If mass is stationary, energy will not be created. For energy to be created, mass must be in motion. So, not only can mass create gravity, but moving mass is the cause of gravity.

### Mass and Space:

Mass cannot compress space, because mass itself depends on space, and it is non-physical. So gravity itself is not an independent force; it is simply a result of mass and momentum. Even gravity does not require two objects; only a moving object creates gravity.

So, Space (independent)  $\square$  mass and momentum (depends on space)  $\square$  gravity, (depends on mass and momentum).

If two objects have mass but no motion (rotation), then those two objects cannot create gravity. Gravity is created due to mass and momentum. So, to create gravity, the mass must be in motion, that is, rotating, which is the main condition for creating gravity.

To create gravity, space-time curvature is unnecessary. The reasons for this are:

- A. The model of placing a heavy ball on a 2D sheet is used to explain the curvature of space-time. But in reality, Space is in a 4D expansion. Bending the sheet means bending the 2D surface into 4D. But how does 4D bend?

B. Since there was a huge mass at the point of the Big Bang, space would have been curved a huge amount immediately after the Big Bang.

If space-time curvature were true, then everything would have moved in a certain direction after the Big Bang.

But did that happen?

No, the universe is isotropic (almost the same in all directions) and homogeneous (almost evenly distributed matter). Even after the Big Bang, everything spread out at the same speed, it didn't curve in a specific direction.

So the idea of space-time curvature hides the real motion and gives a false explanation.

C. Space is non-physical, so space itself is not subject to curvature.

Why space is non-physical are:

- If space were physical, it would be created and destroyed. But space is eternal.
- If space were physical, there would be a collision or reaction of space with physical bodies. So space is non-physical.
- Space itself is not matter or energy. Rather, it establishes the relationship between matter and energy.
- Space is non-physical, so it does not hinder the movement of physical bodies.
- Even space helps in the interactions of matter and energy and their location.
- If space were physical, the dynamics of the universe would be disrupted.
- Space itself does not possess any specific qualities, such as up and down. Therefore, the concept of space curvature is absurd.
- Physical existence never manifests without non-physical space. So all objects existing independently are observed within it.
- Since space is non-physical, it never curves due to mass or energy.

D. Gravitational lensing:

Not a curvature of space-time, but a motion field created by moving mass.

The motion of the mass creates a motion field.

This field affects light, bending it.

Just as a magnetic field bends an iron particle.

There is no space-time curvature here; there is a real motion field. Because the motion field is measurable, but the space-time curvature is not measurable.

E. In Eddington's solar eclipse experiment of 1919, the bending of light was considered as the cause of space curvature.

But the Sun is a rotating object. Therefore, a strong motion field is created around it. When light enters this motion field, the light bends.

Example:

If we rotate a 50 kg stone at high speed, a motion field will be created there. Then we shine light on that field, and the light will bend.

$MFS \propto m^2 \cdot r$

Here,

MFS motion field strength,

$m$ =mass (50 kg),  $w$  = angular velocity of rotation,  $r$ = Radius of rotation.

F. GPS:

The reason for the time change in the GPS is motion. Because the time difference detected in the GPS is only due to the different speed. The speed of the Earth's rotation versus the satellite's orbital speed. Time correction is required due to the difference in speed.

Since time is dependent on motion, if motion changes, time will change as a result.

In reality, motion causes time differences, and motion causes time correction.

When space-time is curved, gravity is created and gravity curves space-time. They are contradictory.

**Contradiction:**

1. Space-time:

Space-time curvature  $\square$  gravity arises.

Gravity  $\square$  space-time curvature.

Example:

The gravity of a black-hole is so strong that it bends space-time extremely.

This is a cause-and-effect confusion.

If space-time curvature exists, then gravity is the effect.

Again, if the gravitational curvature of space-time, then gravity is the cause.

Then the question becomes:

Which came first?

Gravity or space-time curvature.

This becomes a circular explanation, which is an example of incorrect logic (logical ambiguity).

**Curvature of motion:**

In addition, according to this theory, there can be curvature of motion, but never curvature of space, because space is non-physical.

Since motion itself is measured by change of space, which is related to displacement. If there is any change in the motion of an object, such as intensity, direction change, then there is curvature of motion. So, curvature of motion is scientifically possible, but curvature of space is scientifically not possible. Because motion is a process of changing space, which can be curved.

This theory directly identifies the effect of the rotation of mass as the cause of the curvature of light. It is possible to prove this through a simple experiment.

For example,

This effect can be observed using a stone, rotating at high speed and the projection of light. So light bends due to the rotation of mass, it does not bend due to the curvature of space.

Therefore, this theory provides a scientifically sound explanation for gravitational lensing.

Curvature of motion vs. curvature of space:

This theory proposes a distinction between curvature of motion and curvature of space:

Curvature of motion:

Curvature of motion is real and measurable. It refers to changes in an object's velocity or trajectory, such as the curved orbits of planets or the path of a satellite.

Curvature of space:

On the other hand, it is not physically meaningful. Since motion involves changes in position within space, and space is non-physical, the concept of its curvature is scientifically invalid.

Hence, this approach offers a scientifically grounded explanation for the curvature of motion, based on observable physical principles.

Even gravitational waves are created by the rapid motion of massive objects. Gravitational waves are created only when two moving objects with mass collide. So, gravitational waves are created by the collision of motion, not by the curvature of space-time.

Two fixed masses cannot create gravity because attraction between two objects is not possible without motion.

For example,

- Take two stones, one weighing 1 kg and the other 5 kg. Then keep the two stones at a distance of 1 meter. No gravitational effect will be seen here.
- On the other hand, two same stones are kept 1 meter apart and rotated at high speed; the gravitational effect will be observed. This applies to all masses, from small to large.

### Test materials:

- Two stones, one 1 kg and the other 5 kg.
- Vacuum chamber.
- Laser interferometer – for measuring the attraction.
- High-speed camera – for observation.
- Data logger – for storing the readings of each phase.

### Analysis and implications:

- The static mass produces no measurable gravitational pull.
- The same mass, once set into motion, generates a force proportional to the square of its velocity.

- This directly challenges the space-time curvature model of gravity and supports the framework where motion is essential.

These findings, both analytical and observational, lend strong support to this theory. The requirement of motion for gravitational force to manifest challenges traditional notions and opens doors for new interpretations of astrophysical behaviour, such as the structure of galaxies.

**Motion as the source of gravity:**

Motion is not only essential to gravity but also fundamental to the laws of physics. Without motion, physical laws would collapse, and no work could occur.

When two black holes merge, their mass and motion create gravitational waves. These waves cannot exist without motion. Gravity is extra due to the mass and high spin of black holes.

So, according to this theory, gravity is created by a combination of mass and momentum. Even two small objects in space rotating at high speed will create gravity. It is a small amount, but gravity is created.

Without motion, gravity would not work. Gravity is not caused by a fixed mass. So not only mass, but mass and momentum are the main causes of gravity. No matter how large an object is, if its mass remains constant, gravity will not work.

**Gravity of rotating galaxies:**

Gravity is maintained in rotating galaxies. This observation supports this theory. It can explain this phenomenon without the need for dark matter. As long as the galaxy is rotating, gravity will work.

Every star or gas cloud in a galaxy is rotating.

Therefore, their  $v > 0$ ,

The higher the  $v$ , the greater the gravity.

So the rotation of the galaxy can be explained without dark matter.

Black-hole singularity, but there is high spin and high gravity. This is also contradictory.

**Contradiction:**

Black hole:

Singularity in black holes, but high spin and high gravity exist.

Conventional argument:

General relativity breaks down at the singularity of a black hole.

But at the same time, high spin and extreme gravity exist there.

Then the question becomes:

When space-time fails, how does force (gravity/ spin) survive?

This is also contradictory.

Is it possible to create gravity without motion?

If there is no motion, then where will gravity come from?

Even without motion, no force or field will be created.

So, how can a fixed mass create gravity?

This is also contradictory to conventional science.

Whether it is a field or a force, it requires change or motion. Something stationary cannot create a force because it is not doing any work.

So saying that gravity comes from a stationary mass is a self-contradictory statement.

For something to exist, it must be somewhere; and somewhere means a position, and any position means the possibility of change or motion.

Therefore, without motion, no time, no energy, and no force can be manifested in reality.

Therefore, the origin of all forces is the result of motion; motion is the cause.

The research question is,

Where does energy come from?

Because stationary mass is not a source of energy.

If an object is stationary, then its energy is zero.

Force can't be created.

Only moving mass creates energy. It is through this energy that force is created. Therefore, the main source of gravity is moving mass.

Mass alone is not energy; for energy to be created, mass must be in motion. Even potential energy is not possible without motion.

So, if there is no motion, then there is no energy.

If there is no energy, then there is no force.

If there is no force, then there is no gravity.

Motion  $\square$  creation of the field

Field means the presence of force in an area.

But if nothing moves (no motion/change), then how will the lines or fields of force be created?

So, the field is created only when something is changing, that is, motion is happening.

Motion  $\square$  Birth of time

When does time begin?

Whenever the position changes.

If nothing moves, then time is also meaningless.

So, time = measurement of motion.

Even gravity does not require two objects; a rotating object can also create gravity. If an object is rotating on its own, then that motion can create gravity, without the presence of any other object. That is, motion itself is the source of gravity. A rotating object attracts objects at a certain distance from it. Therefore, energy and gravitational force are created only when there is motion; there is no need for space-time curvature.

Additionally, gravity increases as speed increases. That is, doubling  $v$  increases  $F_g$  fourfold.

Gravity is maintained in rotating galaxies. This can be explained by motion alone, without the need for dark matter.

## Conclusion:

This theory asserts that:

- Gravity is not an independent force.
- It arises from the combination of mass and momentum.
- Space is non-physical and cannot be curved or compressed.
- Motion is essential for gravity to exist.
- Gravitational lensing and gravitational waves result from the effects of rotating and colliding mass, not from space-time curvature.
  - Gravity does not require two objects to exist; a single moving object can generate gravity.
  - Even gravitational effects can be observed due to moving objects in space.

This framework offers an alternative and testable explanation for gravity based on motion and the nature of space, challenging the traditional space-time curvature model.

