

Directional Cosmic Expansion

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Introduction

The expansion of the universe, as described by classical models, relies on the assumption that galaxies move away from one another under the effect of a uniform dilation of space. This simplified view does not account for the living geometry of space-time, nor for the directional forces that shape real cosmological dynamics. In a deformed universe, light never carries pure information: its trajectory bends, its frequency changes, its apparent speed varies, and its internal time is deformed according to the metric it traverses. Thus, the observed recession speed of a galaxy is not necessarily its real speed.

Cosmic expansion is influenced by two fundamental engines: the global rotation of the universe and the directional propulsion generated by the supermassive black holes at the centers of galaxies. Cosmic rotation induces a universal centrifugal force, pushing structures outward along precise geometric axes. Black holes, for their part, do not merely attract matter: they deform the local metric, creating a directional tension capable of propelling their galaxy through space-time. These two dynamics overlap, reinforce, or oppose each other, producing an expansion that is neither uniform nor isotropic.

Within this framework, observed expansion becomes a directional projection, altered by metric deformations, variations of C_v , and curved light trajectories. A galaxy may appear to recede rapidly while its real motion is slow, or appear slow while it is propelled at high speed. The error in estimating cosmic expansion arises directly from this deformed geometry.

This chapter explores this reality: cosmic expansion is not a uniform phenomenon, but a directional dynamic resulting from the rotation of the universe, the propulsion of black holes, and the deformation of space-time.

Chapter 1 — Directional Equations

1.1 — The deformed directional metric

In a living space-time, the metric is never stable. It deforms according to internal tensions, gravitational gradients, and cosmic dynamics.

The directional metric is defined by:

$$g_{\mu\nu} = g_{\mu\nu}(x^\alpha, \tau, \Theta)$$

where:

- x^α = space-time coordinates,
- τ = local directional tension,
- Θ = directional angle of the geometry.

This metric is not isotropic: it possesses an internal orientation.

1.2 — Directional variation of the speed of light

The apparent speed of light depends on the metric it traverses:

$$C_v = C_0 \cdot f(g_{\mu\nu})$$

where:

- C_0 = universal speed in an undeformed space-time,
- $f(g_{\mu\nu})$ = metric deformation function.

In a dilated region:

$$C_v < C_0$$

In a contracted region:

$$C_v > C_0$$

This variation is the engine behind all cosmological illusions.

1.3 — The directional equation of the photon's trajectory

The photon's trajectory is no longer a classical geodesic. It becomes a directional geodesic:

$$\frac{d^2 x^\mu}{d\lambda^2} + \Gamma_{\alpha\beta}^\mu \frac{dx^\alpha}{d\lambda} \frac{dx^\beta}{d\lambda} = D^\mu$$

where:

- $\Gamma_{\alpha\beta}^\mu$ = directional Christoffel symbols,
- D^μ = directional term added by geometric tension.

This term D^μ is responsible for:

- position inversions,

- duplications,
- distance illusions,
- extreme curved trajectories.

1.4 — Directional dynamics of mass

Mass is no longer a constant. It depends on the local geometry:

$$m = m_0 \cdot \phi(g_{\mu\nu})$$

where ϕ is a directional function.

In a contracted region:

$$m > m_0$$

In a dilated region:

$$m < m_0$$

This dynamic explains:

- directional propulsion of black holes,
- variation in galactic density,
- internal dynamics of cosmological structures.

1.5 — The directional equation of cosmic rotation

The rotation of the universe is integrated through a global directional term:

$$\Omega = \Omega_0 + \Delta\Omega(g_{\mu\nu})$$

where:

- Ω_0 = fundamental universal rotation,
- $\Delta\Omega$ = directional correction due to the local metric.

This rotation generates a cosmic centrifugal force:

$$F_{\text{centrifuge}} = m \cdot r \cdot \Omega^2$$

which directly contributes to expansion.

1.6 — The directional propulsion equation of black holes

A supermassive black hole deforms the local metric. This deformation creates directional propulsion:

$$P = \nabla g_{\mu\nu} \cdot S^\nu$$

where:

- P = directional propulsion,
- S^ν = directional spin of the black hole.

This propulsion explains:

- internal acceleration of galaxies,
- asymmetric dynamics of spiral arms,
- local contribution to cosmic expansion.

1.7 — The directional equation of cosmic expansion

Real expansion is not given by:

$$v = H_0 \cdot D$$

but by:

$$v_{\text{real}} = v_{\text{rotation}} + v_{\text{propulsion}} + v_{\text{metric}}$$

with:

$$v_{\text{metric}} = C_v \cdot \Delta t$$

and:

$$v_{\text{rotation}} = r \cdot \Omega$$

$$v_{\text{propulsion}} = P/m$$

Thus, observed expansion is:

$$v_{\text{observed}} = C_v \cdot t_{\text{observed}}$$

and not the real velocity.

1.8 — Chapter summary

This chapter establishes the fundamental equations of directional physics:

- the deformed directional metric,

- variation of C_v ,
- the directional geodesic of the photon,
- directional mass dynamics,
- cosmic rotation,
- black hole propulsion,
- real directional expansion.

These equations form the mathematical foundation of the deformed universe. They explain why the visible universe is never the real universe.

Chapter 2 — The Living Metric of Space-Time

2.1 — The metric as a dynamic structure

In classical models, the metric of space-time is treated as a static structure, defined by fixed equations. In a directional approach, the metric becomes a living entity, capable of:

- dilating,
- contracting,
- twisting,
- fragmenting,
- reorienting,
- recomposing.

The metric is not a passive framework: it constitutes the internal dynamics of the universe.

It is described by:

$$g_{\mu\nu}(x^\alpha, \tau, \Theta, t)$$

where:

- τ = local directional tension,
- Θ = geometric orientation,
- t = cosmic time,

- x^α = position in space-time.

2.2 — Metric dilation and contraction

The metric can dilate or contract depending on the internal tensions of the universe.

Metric dilation

$$g_{\mu\nu} \rightarrow g_{\mu\nu} + \Delta g_{\mu\nu}$$

Effects:

- decrease in C_v ,
- stretching of light trajectories,
- increase in redshift,
- illusion of greater distance.

Metric contraction

$$g_{\mu\nu} \rightarrow g_{\mu\nu} - \Delta g_{\mu\nu}$$

Effects:

- increase in C_v ,
- straightening of trajectories,
- decrease in redshift,
- illusion of proximity.

The metric behaves like a geometric fluid, capable of compressing or expanding.

2.3 — Directional torsion

The metric may undergo internal torsion, defined by:

$$T_{\mu\nu} = \partial_\mu g_{\nu\alpha} - \partial_\nu g_{\mu\alpha}$$

This torsion produces:

- position inversions,
- image duplications,
- extreme trajectory deviations,
- cosmological illusions.

Directional torsion is one of the mechanisms behind phenomena where a galaxy appears doubled or projected in an opposite direction.

2.4 — The metric as a living lens

The metric acts as a living lens, capable of redirecting light according to its internal structure.

The previous document shows that:

- “The light trajectory is deformed by the metric.”
- “A galaxy can be projected in an opposite direction.”

The metric is therefore not a simple space: it constitutes a dynamic optical system.

The metric lens is defined by:

$$L = f(g_{\mu\nu}, T_{\mu\nu}, C_v)$$

It produces:

- illusions of distance,
- illusions of position,
- illusions of velocity,
- illusions of shape.

2.5 — The metric and cosmic rotation

The rotation of the universe directly influences the metric. It introduces a global directional term:

$$g_{\mu\nu} \rightarrow g_{\mu\nu}(\Omega)$$

where Ω is cosmic rotation.

Effects:

- deformation of geometric axes,
- creation of directional gradients,
- amplification of cosmic centrifugal force,
- modification of photon trajectories.

Cosmic rotation is not a separate phenomenon: it is integrated into the living metric.

2.6 — The metric and black hole propulsion

Supermassive black holes deform the local metric according to:

$$\Delta g_{\mu\nu} = S^\alpha \cdot \partial_\alpha g_{\mu\nu}$$

where S^α is the directional spin of the black hole.

This deformation creates:

- geometric tension,
- directional propulsion,
- internal galactic dynamics.

The metric becomes a propulsion field, capable of pushing the galaxy in a given direction.

2.7 — The metric as a source of cosmological error

All cosmological illusions originate from the living metric:

- illusions of distance,
- illusions of position,
- illusions of velocity,
- illusions of duplication,
- illusions of redshift.

The previous document states:

- “The observed distance is a projection.”
- “The observed position is not the real position.”
- “The distance of galaxies is a geometric illusion.”

These illusions are produced by the living metric.

2.8 — Chapter summary

This chapter establishes the foundations of the living metric:

- The metric is dynamic, not static.
- It dilates, contracts, twists, and reorients.
- It acts as a living lens.

- It deforms photon trajectories.
- It influences cosmic rotation.
- It integrates black hole propulsion.
- It produces all cosmological illusions.
- It distorts measurements of distance, velocity, and expansion.

The living metric is the heart of the deformed universe. It determines everything that is observed—and everything that is misinterpreted.

Chapter 3 — The Speed of C and the Positions of Galaxies

3.1 — C is not a constant in a deformed universe

In classical models, the speed of light is considered a universal constant. In a directional approach, this assumption can no longer be maintained.

The apparent speed of light depends on the geometry it traverses:

$$C_v = C_0 \cdot f(g_{\mu\nu})$$

where:

- C_0 = internal speed of the photon in an undeformed space-time,
- C_v = apparent speed measured by the observer,
- $g_{\mu\nu}$ = living metric of space-time.

Thus:

- in a dilated region: $C_v < C_0$,
- in a contracted region: $C_v > C_0$.

The speed of light becomes a directional quantity.

3.2 — Variation of C_v deforms the apparent position of galaxies

The observed position of a galaxy depends directly on the apparent speed of light. The previous document shows:

- “The observed position is not the real position.”
- “The light trajectory is deformed by the metric.”

When C_v decreases:

- light takes longer to reach the observer,
- the arrival angle is deformed,
- the trajectory curves more strongly.

Consequence:

A galaxy may appear to come from a direction that does not correspond to its real position.

When C_v increases:

- light crosses the contracted region more quickly,
- the trajectory straightens,
- the arrival angle changes.

Consequence:

A galaxy may appear closer or more aligned than it truly is.

3.3 — The speed of C_v and the illusion of proximity or distance

Variation of C_v produces cosmological illusions.

Illusion of increased distance

In a dilated region:

- C_v decreases,
- travel time increases,
- frequency drops.

The galaxy appears:

- farther away,
- weaker,
- redder.

Illusion of proximity

In a contracted region:

- C_v increases,

- travel time decreases,
- frequency rises.

The galaxy appears:

- closer,
- brighter,
- bluer.

Thus:

Observed distance depends on C_v , not on real distance.

3.4 — The speed of C_v and inversion of cosmological positions

The document shows:

- “A galaxy can be projected in an opposite direction.”

This phenomenon is directly linked to variation of C_v .

When light traverses a region where the metric has directional torsion:

- the trajectory bends strongly,
- the arrival angle inverts,
- the apparent position flips.

Thus:

A galaxy located to the right may appear on the left.

A galaxy located south may appear north.

Position inversion is a geometric effect of directional variation of C_v .

3.5 — The speed of C_v and galaxy duplication

The document states:

- “A galaxy can be observed in double.”

This occurs when:

- two photons from the same galaxy traverse regions where C_v varies differently,
- their directional trajectories differ,

- their arrival angles diverge.

Thus:

A single galaxy may produce two distinct apparent positions.

This duplication is not an anomaly: it is a direct consequence of the living metric and variation of C_v .

3.6 — The speed of C_v and expansion-estimation error

The apparent recession speed of a galaxy depends on redshift. But redshift depends on C_v .

In a dilated region:

- C_v decreases,
- redshift increases artificially,
- the galaxy appears to recede faster.

In a contracted region:

- C_v increases,
- redshift decreases artificially,
- the galaxy appears to recede more slowly.

Thus:

Measured cosmic expansion is distorted by directional variation of C_v .

This point is fundamental: **observed expansion is not real expansion.**

3.7 — Chapter summary

This chapter establishes the foundations of the relationship between C_v and galaxy positions:

- The speed of light is directional, not constant.
- Variation of C_v deforms photon trajectories.
- The observed position of a galaxy is not its real position.
- C_v produces illusions of proximity and distance.
- C_v can invert cosmological positions.

- C_v can duplicate galaxies.
- C_v distorts measurements of cosmic expansion.
- Classical cosmology relies on a misinterpreted speed of light.

The directional speed of light is the core of all cosmological illusions. It determines the apparent positions, distances, and velocities of galaxies.

Chapter 4 — The Rotating Universe and the Centrifugal Force

4.1 — Cosmic rotation as a fundamental property of the universe

In a directional cosmology, the universe is not a static space. It possesses a global rotation, slow but real, inscribed in the very structure of space-time. This rotation is not a mechanical motion: it constitutes a geometric rotation, an internal pivot of the metric.

Cosmic rotation drives:

- dimensions,
- galactic structures,
- gravitational gradients,
- directional tensions,
- light trajectories.

Thus, every galaxy evolves within a rotating space-time, not within a motionless framework.

4.2 — The cosmic centrifugal force

Every rotation generates a centrifugal force. In a rotating universe, this force acts not on physical objects, but on the metric itself.

The cosmic centrifugal force is defined by:

$$F_{\text{centrifuge}} = m \cdot r \cdot \Omega^2$$

where:

- m = local directional mass,
- r = distance from the cosmic rotation center,
- Ω = angular velocity of the universe.

This centrifugal force:

- pushes galaxies outward,
- increases their apparent velocity,
- amplifies directional expansion,
- modifies photon trajectories,
- deforms the local metric.

The cosmic centrifugal force is an engine of expansion.

4.3 — Interaction between cosmic rotation and the living metric

The rotation of the universe does not act alone. It interacts with the living metric described in previous chapters.

When the metric dilates:

- rotation amplifies the deformation,
- centrifugal force increases,
- galaxies appear to recede faster.

When the metric contracts:

- rotation tightens,
- centrifugal force decreases,
- galaxies appear to recede more slowly.

Thus:

The apparent velocity of galaxies depends on cosmic rotation and the metric they traverse.

4.4 — Cosmic rotation and the apparent position of galaxies

The rotation of the universe deforms light trajectories. It modifies the arrival angle of photons, producing position illusions.

Effects:

- a galaxy located on the right may appear on the left,
- a galaxy located behind may appear in front,

- a distant structure may appear close,
- a nearby structure may appear distant.

Cosmic rotation acts as a global directional torsion.

4.5 — Cosmic rotation and directional expansion

The rotation of the universe directly contributes to cosmic expansion. It adds a directional component to the recession velocity of galaxies.

Real velocity becomes:

$$v_{\text{real}} = v_{\text{propulsion}} + r \cdot \Omega + v_{\text{metric}}$$

where:

- $v_{\text{propulsion}}$ = directional propulsion from black holes,
- $r \cdot \Omega$ = velocity due to cosmic rotation,
- v_{metric} = apparent velocity due to space-time deformation.

Thus:

Cosmic expansion is not uniform: it depends on the galaxy's orientation within universal rotation.

4.6 — Cosmic rotation and expansion-estimation error

The rotation of the universe distorts cosmological measurements.

When rotation amplifies centrifugal force:

- the galaxy appears to recede faster,
- redshift increases artificially,
- expansion appears faster.

When rotation tightens:

- the galaxy appears to recede more slowly,
- redshift decreases artificially,
- expansion appears slower.

Thus:

Observed expansion depends on cosmic rotation, not solely on the real dynamics of galaxies.

The Hubble constant becomes a directional average, not a universal constant.

4.7 — Chapter summary

This chapter establishes the foundations of cosmic rotation:

- The universe possesses a global rotation.
- This rotation generates a cosmic centrifugal force.
- The centrifugal force deforms the metric and light trajectories.
- Rotation modifies the apparent position of galaxies.
- Rotation influences apparent recession velocity.
- Observed expansion is distorted by cosmic rotation.
- The Hubble constant is not universal: it is directional.

The rotation of the universe is a fundamental engine of cosmic expansion. It deforms the apparent positions, distances, and velocities of galaxies.

Chapter 5 — Directional Propulsion of Black Holes

5.1 — The black hole as a geometric engine

In classical models, a black hole is described as a gravitational well absorbing matter and light. In a directional cosmology, this view is incomplete.

A supermassive black hole:

- deforms the local metric,
- creates directional tension,
- generates a geometric gradient,
- imposes an internal orientation on space-time.

It is not merely a point of attraction: it acts as a **geometric engine**, capable of propelling its galaxy through space-time.

5.2 — Metric deformation induced by the black hole

The black hole modifies the metric according to:

$$\Delta g_{\mu\nu} = S^\alpha \cdot \partial_\alpha g_{\mu\nu}$$

where:

- S^α = directional spin of the black hole,
- $\partial_\alpha g_{\mu\nu}$ = local metric gradient.

This deformation produces:

- directional compression,
- geometric torsion,
- local variation of C_v ,
- modification of photon trajectories.

The metric becomes a dynamic field oriented by the black hole.

5.3 — Directional tension and propulsion

Metric deformation creates directional tension:

$$\tau = \nabla g_{\mu\nu}$$

This tension acts as an internal force capable of propelling the galaxy. Directional propulsion is defined by:

$$P = \tau \cdot S^\mu$$

where S^μ is the spin vector of the black hole.

Effects:

- internal acceleration of the galaxy,
- modification of its apparent velocity,
- amplification of directional expansion,
- deformation of its observed position.

Directional propulsion is a geometric phenomenon, not a mechanical one.

5.4 — The black hole as a generator of galactic asymmetry

Directional propulsion explains several observed phenomena:

- asymmetry of spiral arms,

- inclination of galactic disks,
- non-uniform internal rotation,
- deformation of gravitational halos.

The previous document shows:

- “A galaxy can be projected in an opposite direction.”
- “A galaxy can be observed in double.”

These phenomena are amplified by directional propulsion from the black hole.

5.5 — Interaction between propulsion and cosmic rotation

Directional propulsion does not act alone. It interacts with cosmic rotation described in the previous chapter.

Real velocity of a galaxy becomes:

$$v_{\text{real}} = v_{\text{propulsion}} + r \cdot \Omega + v_{\text{metric}}$$

where:

- $v_{\text{propulsion}}$ = directional propulsion from the black hole,
- $r \cdot \Omega$ = velocity due to cosmic rotation,
- v_{metric} = apparent velocity due to space-time deformation.

Thus:

Directional propulsion of black holes directly contributes to cosmic expansion.

5.6 — Directional propulsion and expansion-estimation error

Directional propulsion distorts cosmological measurements.

When propulsion increases:

- the galaxy appears to recede faster,
- redshift increases artificially,
- expansion appears faster.

When propulsion decreases:

- the galaxy appears to recede more slowly,

- redshift decreases artificially,
- expansion appears slower.

Thus:

Observed expansion depends on directional propulsion from black holes, not solely on the real dynamics of the universe.

The Hubble constant becomes a directional average influenced by:

- the metric,
- cosmic rotation,
- internal propulsion of galaxies.

5.7 — Chapter summary

This chapter establishes the foundations of directional propulsion:

- The black hole is a geometric engine.
- It deforms the local metric.
- It creates directional tension.
- It generates internal propulsion.
- It modifies the apparent position of galaxies.
- It influences apparent recession velocity.
- It contributes to directional expansion.
- It distorts classical cosmological measurements.

Directional propulsion of black holes is a fundamental engine of cosmic dynamics. It determines the apparent velocity, position, and expansion of galaxies.

Chapter 6 — The False Idea of Dark Energy

6.1 — Dark energy: a hypothesis born from a misreading of the universe

In classical cosmology, dark energy is introduced to explain an observation: galaxies appear to move away from one another faster than expected . This apparent acceleration is

interpreted as the signature of an unknown force—omnipresent, invisible, and possessing a constant density throughout the universe.

However, this hypothesis rests on three fundamental errors:

- The speed of light is assumed to be constant.
- The space-time metric is assumed to be stable.
- Expansion is assumed to be uniform and isotropic.

In a directional cosmology, all three assumptions are false.

6.2 — Variation of C_v as the source of the illusion of acceleration

Previous chapters established that:

- the apparent speed of light varies with the metric,
- dilated regions decrease C_v ,
- contracted regions increase C_v ,
- redshift depends on C_v and not solely on recession velocity.

Thus:

A galaxy may appear to accelerate simply because it is crossing a region where C_v decreases. Apparent acceleration is not a mysterious force: it is a **metric illusion**.

6.3 — The living metric and false cosmic acceleration

The space-time metric is not static. It dilates, contracts, twists, and reorients.

When the metric dilates:

- local time stretches,
- C_v decreases,
- redshift increases artificially,
- the galaxy appears to recede faster.

When the metric contracts:

- local time tightens,
- C_v increases,

- redshift decreases artificially,
- the galaxy appears to slow down.

Thus:

Observed cosmic acceleration is a consequence of the living metric, not of dark energy.

6.4 — Cosmic rotation and the centrifugal force

Chapter 4 showed that the universe possesses a global rotation. This rotation generates a cosmic centrifugal force:

$$F_{\text{centrifuge}} = m \cdot r \cdot \Omega^2$$

This force:

- pushes galaxies outward,
- amplifies their apparent velocity,
- deforms photon trajectories,
- modifies redshift.

Thus:

Part of cosmic expansion is due to universal rotation, not dark energy.

6.5 — Directional propulsion of black holes

Chapter 5 established that supermassive black holes:

- deform the local metric,
- create directional tension,
- generate internal propulsion,
- modify the apparent velocity of galaxies.

This directional propulsion contributes to observed expansion.

Thus:

Galaxies do not move apart solely because space expands— they are propelled by their own internal geometry.

This phenomenon is mistaken for dark energy.

6.6 — Dark energy as an interpretative error

Dark energy is introduced to explain:

- apparent acceleration,
- faster-than-expected expansion,
- higher-than-expected redshift.

But these phenomena are already explained by:

- directional variation of C_v ,
- the living metric,
- cosmic rotation,
- directional propulsion of black holes.

Thus:

Dark energy is not a substance. Dark energy is not a force. Dark energy does not exist.

It is an interpretative error born from a misunderstood universe.

6.7 — Chapter summary

This chapter establishes the foundations of the false idea of dark energy:

- Observed cosmic acceleration is a metric illusion.
- Variation of C_v distorts redshift.
- The living metric produces velocity illusions.
- Cosmic rotation generates a centrifugal force.
- Black holes propel galaxies.
- Observed expansion is directional, not uniform.
- Dark energy is unnecessary in a deformed universe.

Dark energy is not a physical reality: it is the symptom of a cosmology that ignores the living metric, cosmic rotation, and directional propulsion.

Chapter 7 — The Missing Matter (Energy) of the Universe: Confinement

7.1 — Missing matter: an interpretative error

Classical cosmology claims the universe contains a large quantity of invisible matter—dark matter—needed to explain:

- galaxy rotation,
- cluster cohesion,
- large-scale structure,
- global cosmic dynamics.

This hypothesis arises because visible mass is insufficient to explain observed motions.

However, this conclusion assumes mass is tied only to observable matter. In directional cosmology, this assumption is false.

7.2 — Mass as confined energy

Confinement is the fundamental mechanism that gives rise to mass. As established previously:

- a free photon has no mass,
- a confined photon acquires mass,
- mass is immobilized energy,
- confinement fixes density and proper time.

Thus:

Mass is not a substance— it is a **state of energy when confined**.

Missing matter is not invisible matter, but **energy confined within geometric structures not directly observable**.

7.3 — Confinement as the source of directional mass

Confinement acts as an internal structure capable of:

- immobilizing energy,
- trapping photons,
- creating density,
- slowing proper time,
- generating directional mass.

Directional mass is defined by:

$$m = E_{\text{confined}} \cdot \phi(g_{\mu\nu})$$

Thus:

A large portion of the universe's mass is confined within invisible internal geometries.

This mass is not detected by classical instruments but influences cosmic dynamics.

7.4 — Confinement within galaxies

Galaxies possess complex internal structures:

- a central black hole,
- a disk of confined matter,
- directional spiral arms,
- a geometric halo,
- a deformed metric.

Much of their energy is confined within:

- gravitational gradients,
- directional tensions,
- metric deformations,
- internal black-hole structures.

This confined energy produces directional mass that:

- stabilizes the galaxy,
- amplifies rotation,
- reinforces cohesion,
- modifies dynamics.

Thus, missing matter is **directional mass produced by internal confinement**.

7.5 — Confinement within galaxy clusters

Galaxy clusters possess even more complex internal geometry. Confinement is amplified by:

- gravitational interactions,
- metric tensions,
- density gradients,
- directional deformations.

This confined energy:

- increases the cluster's effective mass,
- reinforces cohesion,
- stabilizes structures,
- modifies photon trajectories.

Thus, missing matter in clusters is **energy confined within the living metric**, not invisible matter.

7.6 — Confinement and cosmological misinterpretation

Classical cosmology interprets directional mass as invisible matter. It ignores:

- the living metric,
- variation of C_v ,
- cosmic rotation,
- directional propulsion,
- internal confinement geometry.

Thus:

Dark matter is not a substance— it is **energy confined within the geometry of space-time**.

This energy:

- does not radiate,
- emits no light,
- does not interact electromagnetically,
- yet influences cosmic dynamics.

It constitutes the universe's missing mass.

7.7 — Chapter summary

This chapter establishes the foundations of missing matter:

- Mass is confined energy.
- Confinement immobilizes photons and creates density.
- Missing matter is energy confined within the living metric.
- Galaxies contain large amounts of confined energy.
- Clusters amplify confinement through complex geometry.
- Dark matter is not an invisible substance.
- It is an interpretative error born from incomplete cosmology.
- Confinement explains missing mass without invoking hypothetical matter.

The universe's missing matter is energy confined within the internal geometry of space-time. It is the true dark mass: directional, invisible, but real.

Conclusion — The Revelation of the Directional Universe

The universe described by classical models rests on three pillars: constant light speed, a stable metric, and uniform expansion. This work demonstrates that all three are illusions born from an incomplete reading of cosmic geometry.

Light never travels through neutral space-time. It evolves within a living metric capable of dilating, contracting, twisting, fragmenting, and reorienting. Each photon carries information deformed by the geometry it traverses, altering the apparent position, distance, velocity, and structure of galaxies.

Directional variation of C_v drives all cosmological illusions. It modifies redshift, deforms trajectories, inverts positions, duplicates galaxies, and distorts expansion measurements.

Cosmic rotation adds global dynamics, generating a universal centrifugal force that pushes galaxies outward and reshapes directional structure. This rotation is a fundamental engine of directional expansion.

Supermassive black holes act as geometric engines, deforming the metric, creating directional tension, and generating internal propulsion that influences galactic dynamics.

Missing matter is confined energy within the internal geometry of space-time. Dark matter is not mysterious—it is the signature of geometric confinement.

Dark energy does not exist. Observed cosmic acceleration is a metric illusion produced by variation of C_v , cosmic rotation, directional propulsion, and the living metric.

Thus, the visible universe is never the real universe. Cosmological maps depict projected positions, altered distances, deformed velocities, and inverted structures. True geometry remains hidden behind the living metric, variation of C_v , cosmic rotation, and black-hole dynamics.

Directional reconstruction is the only path to the authentic structure of the universe. It reveals a fluid, dynamic, oriented, propelled, rotating, and profoundly geometric cosmos.

The directional universe is not an interpretation: it is the true nature of reality.