Unlocking the Mystery of the Universe

ExtraOrdinary Technology Conference 2025

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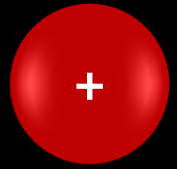
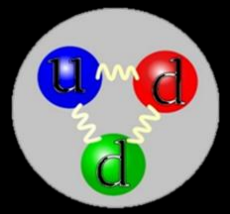
Three Key Points

1. Monocharged Particles

Electron (-)



Positron (+)



Proton (+)

Quarks ($+\frac{2}{3}$,$-\frac{1}{3}$)

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2. Photon

Particle of Light
(Massless, Chargeless)

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3. Uon

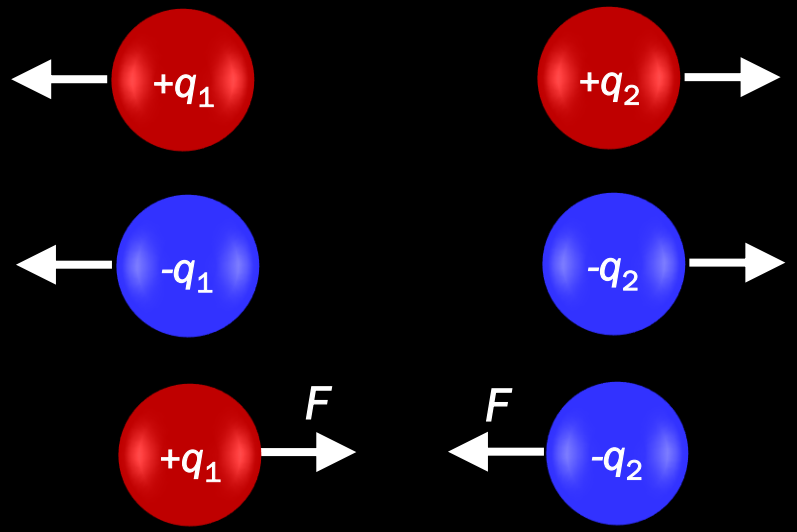
Universal Fundamental Particle *(Magnetic Dipole)*

EXISTS
The Real Particle

Fundamental Errors in Physics

Coulomb's Law (1784)

- Coulomb's Law of Electrostatic Force
  - Like charges repel; opposite charges attract



  - Charge interaction follows an Inverse-Square Law

$$F = k\frac{q_1 \times q_2}{r^2}$$

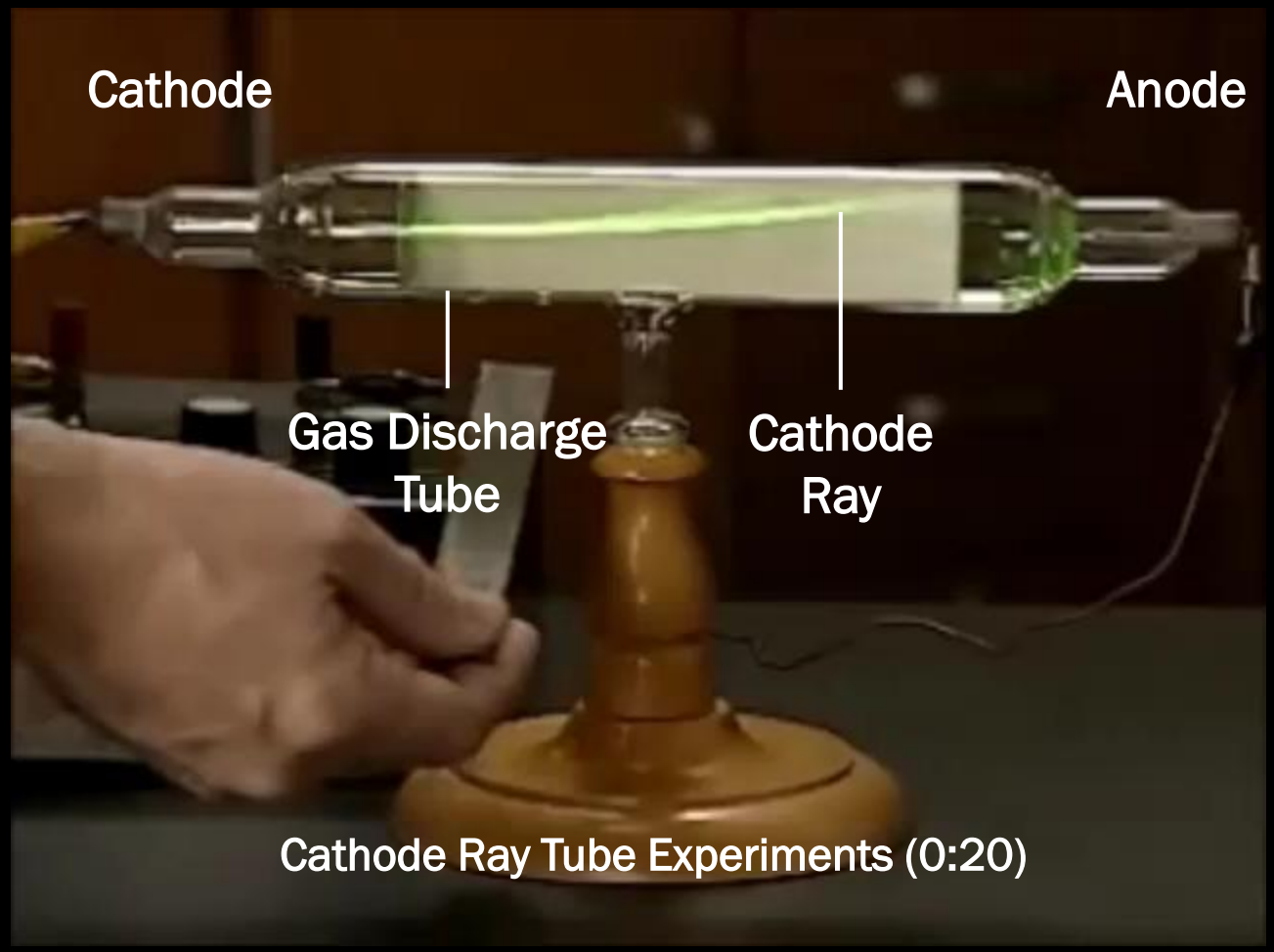
Charles Augustin de Coulomb
(1736 - 1806)
French physicist

Coulomb's Law presupposes the existence of monocharged particles.

The Discovery of Electron (1897)

- J.J. Thomson discovery of the electron (1897); Nobel Prize in 1906

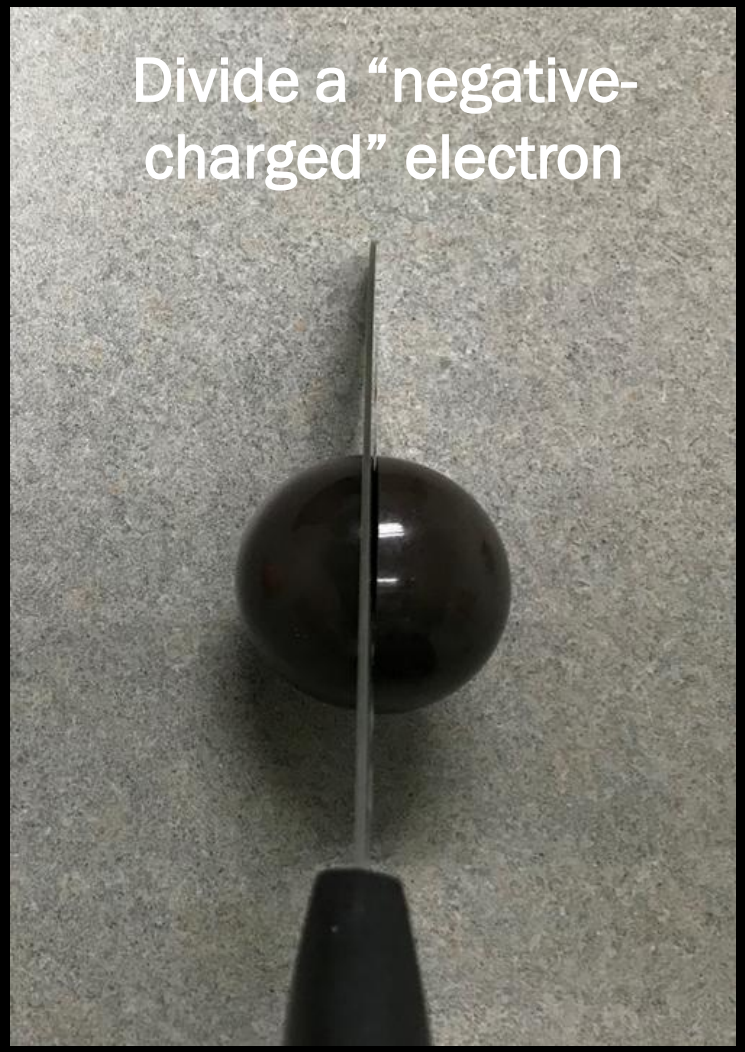
J. J. Thomson (1856–1940)
The British physicist



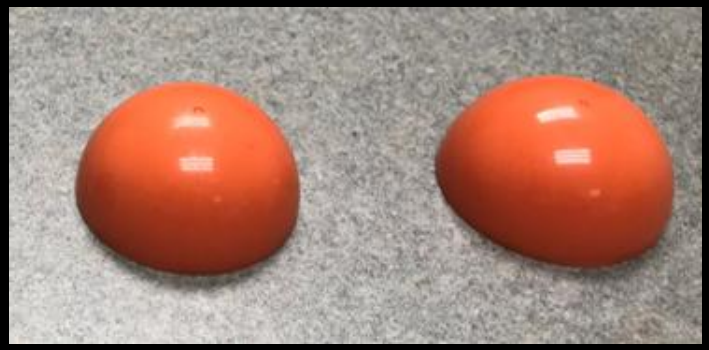
Cathode Ray Tube Experiments (0:20)

Interpreting Magnetic Response as Charge — The Foundational Error

Logical Contradiction: What Happens When an Electron is Split?



What do we get?



Which outcome is possible?

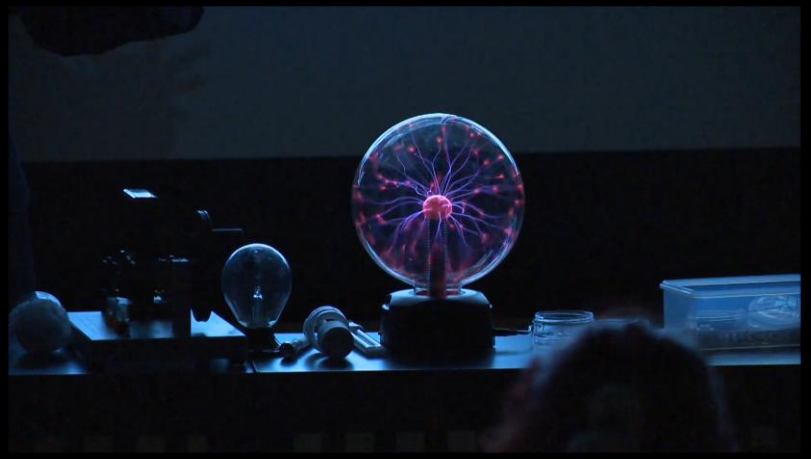
1. Both halves carry a negative charge?

2. One negative half & one positive half?

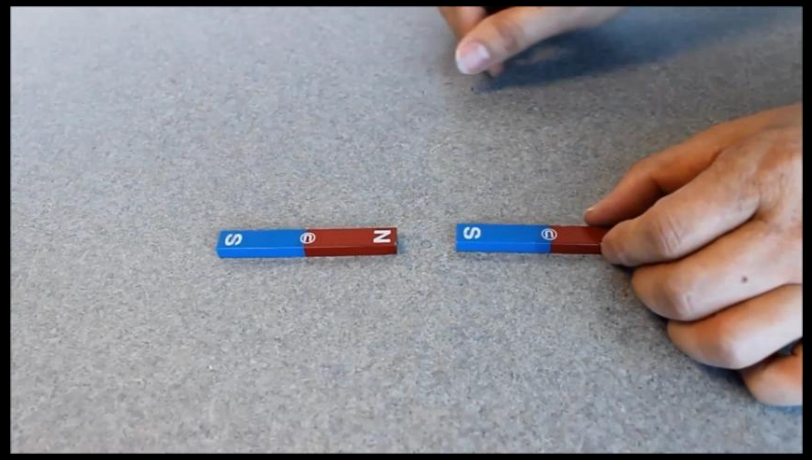
3. Both halves carry a positive charge?

All outcomes violate Coulomb’s Law or charge conservation if electron is truly monocharged.

Experimental Evidence: Electrons Attract, Not Repel



Plasma Ball Filaments (0.06)

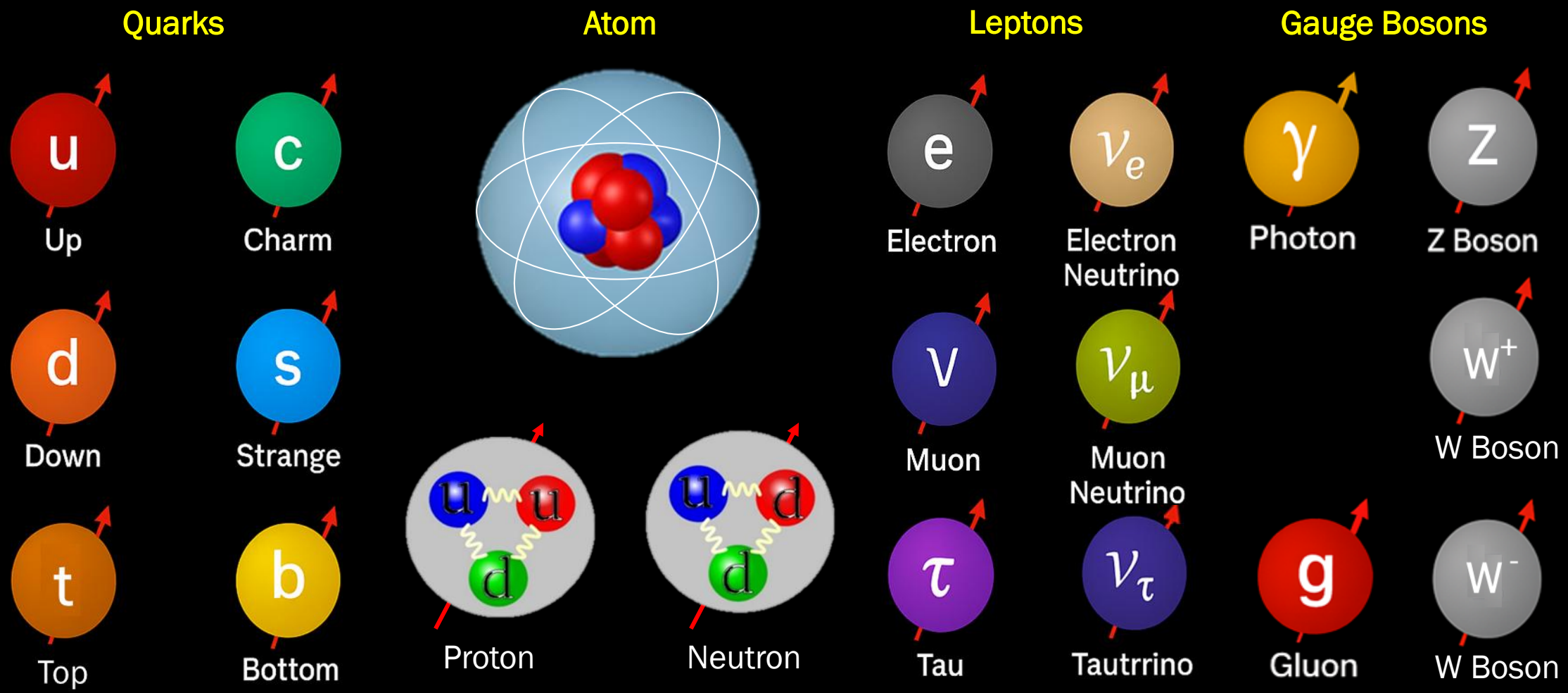


Two Magnets Interaction(0.18)

Electrons in Glass Tube (0:24)

Real-world evidence: electrons act as magnetic dipoles, not as negative monopoles

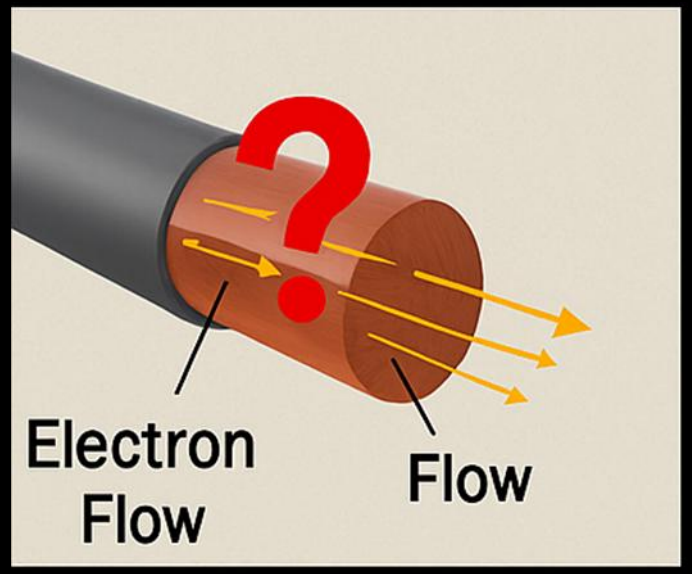
Standard Model: All Particles Have Magnetic Moments



All particles show magnetic moments — proving they are magnetic dipoles, not electric monopoles

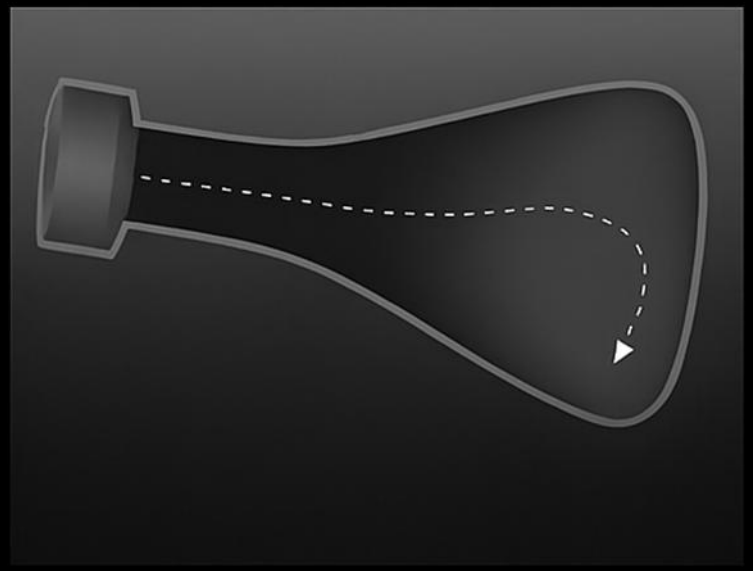
Where Is the Electron?

Inside a Wire



No particles seen — just energy transmission

Cathode Ray Tube



Light emitted — but no particle observed (Path bends like a magnetic wave, not a particle beam)

Electron Detectors

Effect detected — but where is the actual particle?

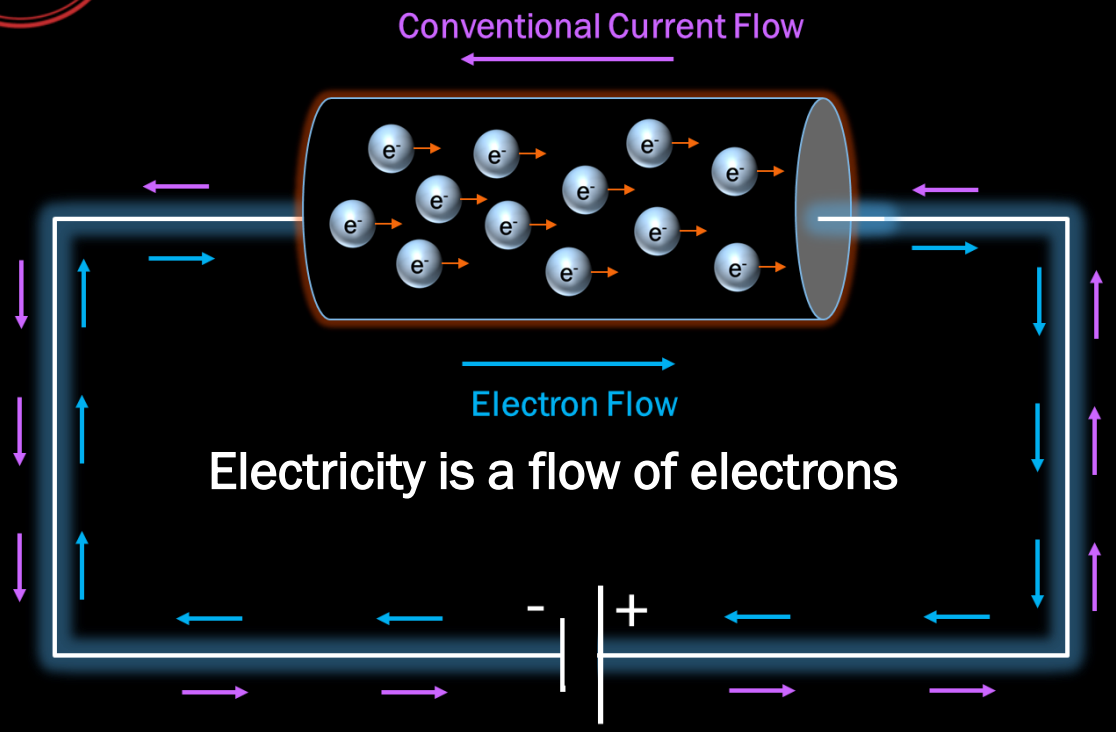
What we measure is magnetic response — not particle motion.

Electricity: Classical Model vs. Uon Theory

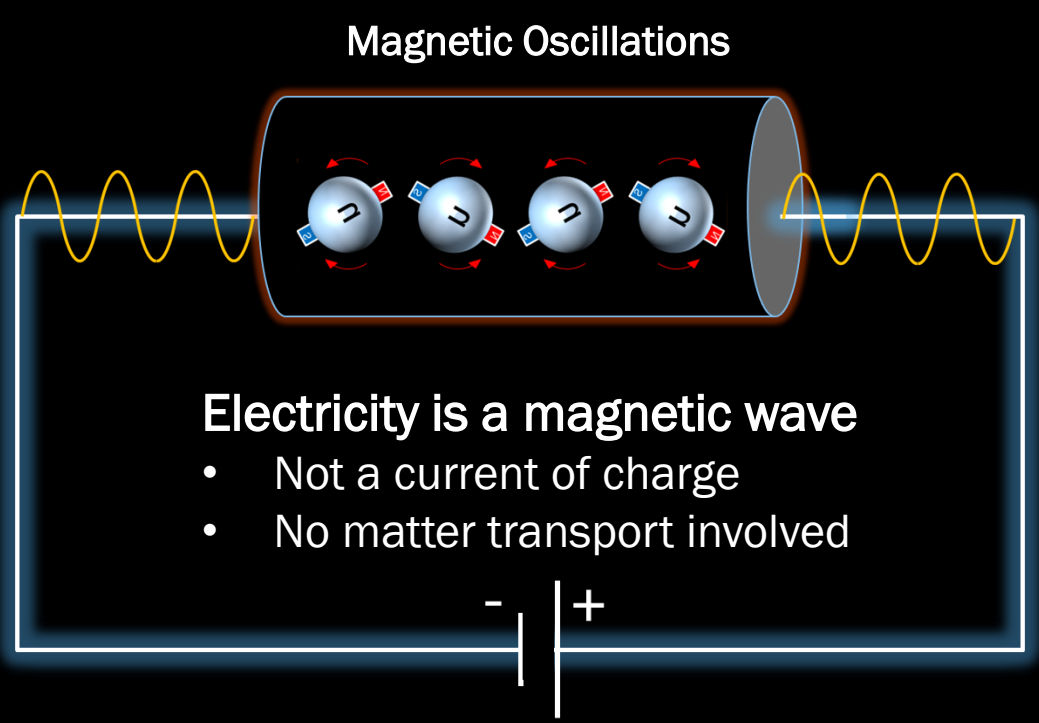
What actually flows in a wire?

FLAWED

Classical Electricity Model



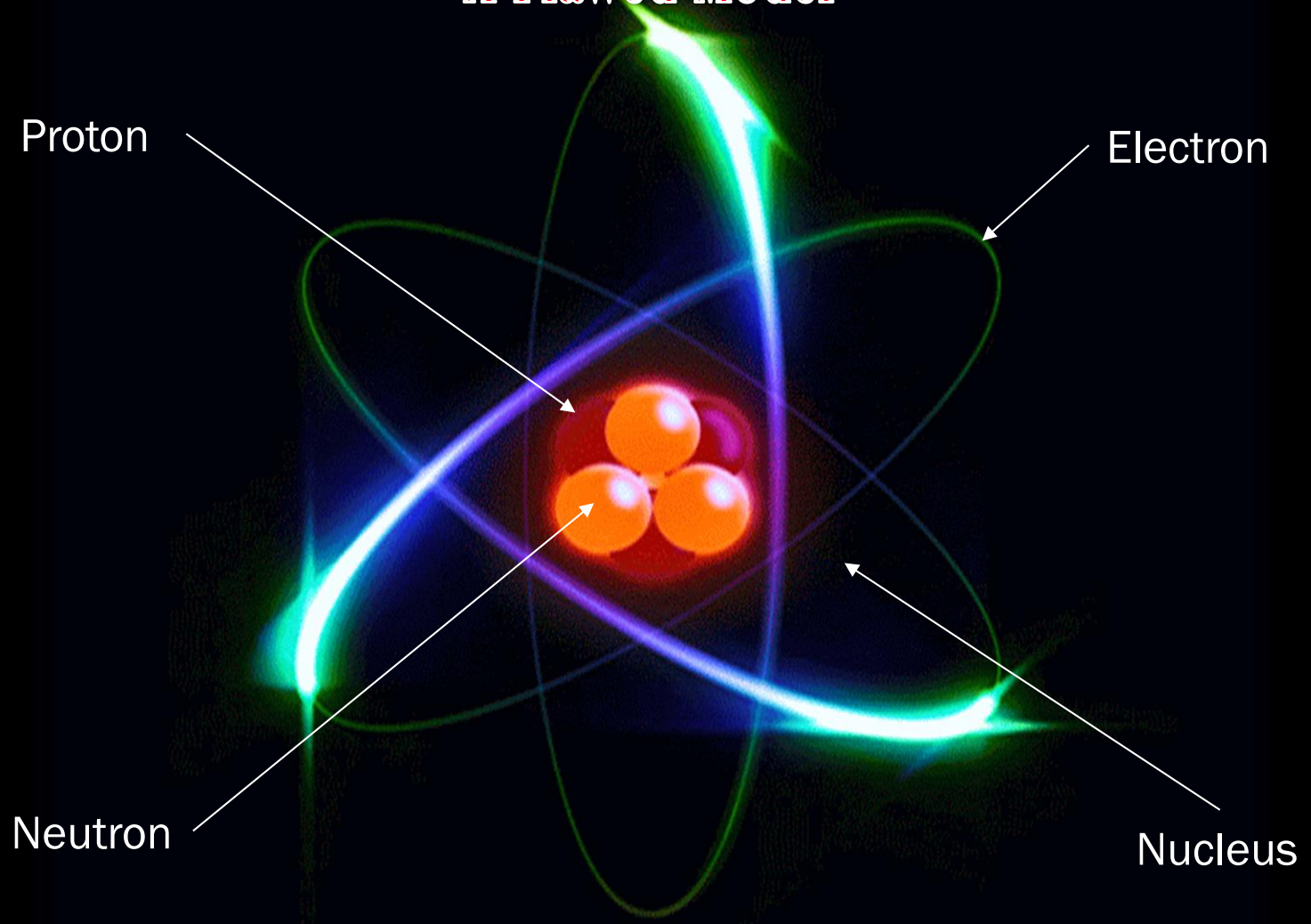
Uon Theory Model



Electricity is the oscillation and propagation of magnetic particles in conductive medium

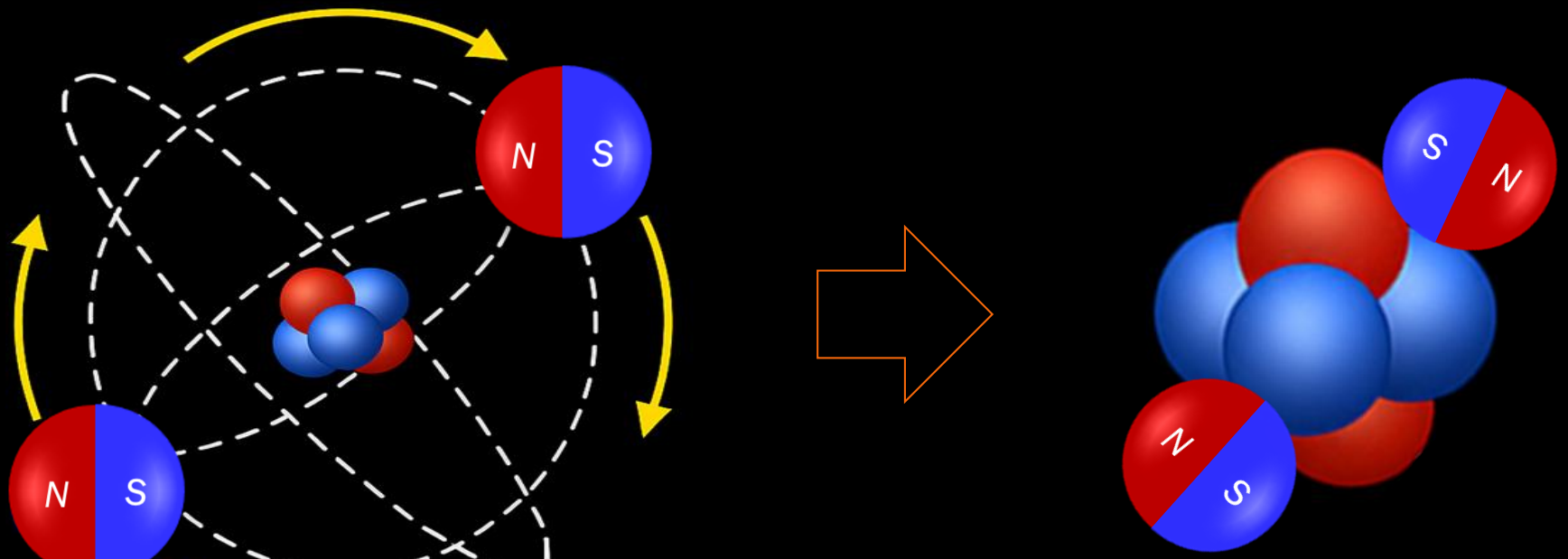
The Atom as a Perpetual Motion Machine?

— A Flawed Model —



This “Perpetual Machine” atom model violates physical laws — it cannot exist!

The Orbital Atom Model Is Imaginary



If the electron is a magnet, it will be pulled into the nucleus—not orbit it—so orbital motion cannot exist.

The orbital atom model collapses under magnetic reality.

Standard Model of
FUNDAMENTAL PARTICLES AND INTERACTIONS

The Standard Model summarizes the current knowledge in Particle Physics. It is the quantum theory that includes the theory of strong interactions (quantum chromodynamics or QCD) and the unified theory of weak and electromagnetic interactions (electroweak). Gravity is included on this chart because it is one of the fundamental interactions even though not part of the "Standard Model."

FERMIONS

matter constituents
spin = 1/2, 3/2, 5/2, ...

Leptons spin = 1/2

Flavor	Mass GeV/c^2	Electric charge
ν_e electron neutrino	$<1\times10^{-8}$	0
e electron	0.000511	−1
ν_μ muon neutrino	<0.0002	0
μ muon	0.106	−1
ν_τ tau neutrino	<0.02	0
τ tau	1.7771	−1

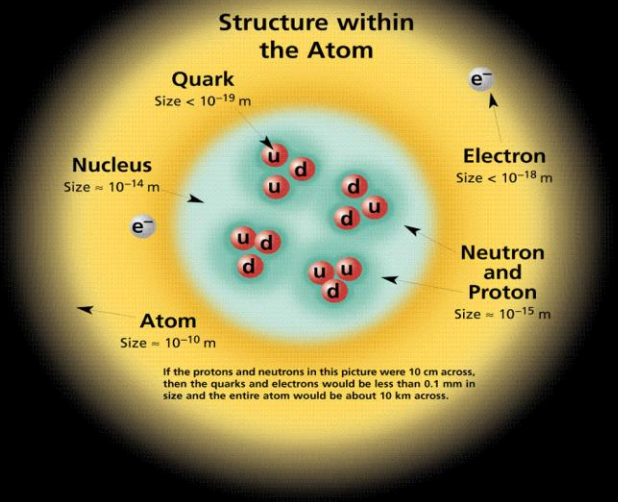
Quarks spin = 1/2

Flavor	Approx. Mass GeV/c^2	Electric charge
u up	0.003	2/3
d down	0.006	−1/3
c charm	1.3	2/3
s strange	0.1	−1/3
t top	175	2/3
b bottom	4.3	−1/3

Spin is the intrinsic angular momentum of particles. Spin is given in units of ħ, which is the quantum unit of angular momentum, where $\hbar = h/2\pi = 6.58\times10^{-25}$ GeV s $= 1.05\times10^{-34}$ J s.

Electric charges are given in units of the proton's charge. In SI units the electric charge of the proton is 1.60×10^{-19} coulombs.

The **energy** unit of particle physics is the electronvolt (eV), the energy gained by one electron in crossing a potential difference of one volt. **Masses** are given in GeV/c^2 (remember $E = mc^2$), where 1 GeV = 10^9 eV = 1.60×10^{-10} joule. The mass of the proton is 0.938 GeV/c^2 = 1.67×10^{-27} kg.



BOSONS

force carriers
spin = 0, 1, 2, ...

Unified Electroweak spin = 1

Name	Mass GeV/c^2	Electric charge
γ photon	0	0
W^-	80.4	−1
W^+	80.4	+1
Z^0	91.187	0

Strong (color) spin = 1

Name	Mass GeV/c^2	Electric charge
g gluon	0	0

Color Charge

Each quark carries one of three types of "strong charge," also called "color charge." These charges have nothing to do with the colors of visible light. There are eight possible types of color charge for gluons. Just as electrically-charged particles interact by exchanging photons, in strong interactions color-charged particles interact by exchanging gluons. Leptons, photons, and ***W*** and ***Z*** bosons have no strong interactions and hence no color charge.

Quarks Confined in Mesons and Baryons

One cannot isolate quarks and gluons; they are confined in color-neutral particles called **hadrons**. This confinement (binding) results from multiple exchanges of gluons among the color-charged constituents. As color-charged particles (quarks and gluons) move apart, the energy in the color-force field between them increases. This energy eventually is converted into additional quark-antiquark pairs (see figure below). The quarks and antiquarks then combine into hadrons; these are the particles seen to emerge. Two types of hadrons have been observed in nature: **mesons** $q\bar{q}$ and **baryons** qqq.

Residual Strong Interaction

The strong binding of color-neutral protons and neutrons to form nuclei is due to residual strong interactions between their color-charged constituents. It is similar to the residual electrical interaction that binds electrically neutral atoms to form molecules. It can also be viewed as the exchange of mesons between the hadrons.

PROPERTIES OF THE INTERACTIONS

Property \ Interaction	Gravitational	Weak (Electroweak)	Electromagnetic (Electroweak)	Strong: Fundamental	Strong: Residual
Acts on:	Mass – Energy	Flavor	Electric Charge	Color Charge	See Residual Strong Interaction Note
Particles experiencing:	All	Quarks, Leptons	Electrically charged	Quarks, Gluons	Hadrons
Particles mediating:	Graviton (not yet observed)	W^+ W^- Z^0	γ	Gluons	Mesons
Strength relative to electromag for two u quarks at: 10^{-18} m	10^{-41}	0.8	1	25	Not applicable to quarks
Strength relative to electromag for two u quarks at: 3×10^{-17} m	10^{-41}	10^{-4}	1	60	
for two protons in nucleus	10^{-36}	10^{-7}	1	Not applicable to hadrons	20

Baryons qqq and Antibaryons $\bar{q}\bar{q}\bar{q}$
Baryons are fermionic hadrons.
There are about 120 types of baryons.

Symbol	Name	Quark content	Electric charge	Mass GeV/c^2	Spin
p	proton	uud	1	0.938	1/2
$\bar{p}$	anti-proton	$\bar{u}\bar{u}\bar{d}$	−1	0.938	1/2
n	neutron	udd	0	0.940	1/2
Λ	lambda	uds	0	1.116	1/2
Ω^-	omega	sss	−1	1.672	3/2

Mesons $q\bar{q}$
Mesons are bosonic hadrons.
There are about 140 types of mesons.

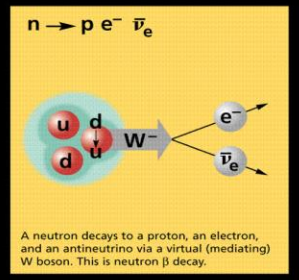
Symbol	Name	Quark content	Electric charge	Mass GeV/c^2	Spin
π^+	pion	$u\bar{d}$	+1	0.140	0
K^-	kaon	$s\bar{u}$	−1	0.494	0
ρ^+	rho	$u\bar{d}$	+1	0.770	1
B^0	B-zero	$d\bar{b}$	0	5.279	0
η_c	eta-c	$c\bar{c}$	0	2.980	0

Matter and Antimatter

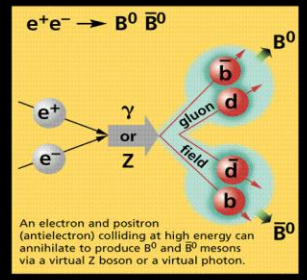
For every particle type there is a corresponding antiparticle type, denoted by a bar over the particle symbol (unless + or − charge is shown). Particle and antiparticle have identical mass and spin but opposite charges. Some electrically neutral bosons (e.g., Z^0, γ, and $\eta_c = c\bar{c}$, but not $K^0 = d\bar{s}$) are their own antiparticles.

Figures

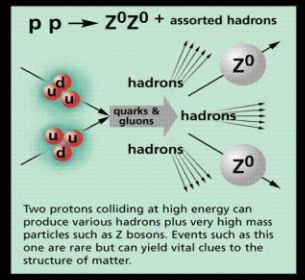
These diagrams are an artist's conception of physical processes. They are ***not*** exact and have ***no*** meaningful scale. Green shaded areas represent the cloud of gluons or the gluon field, and red lines the quark paths.



A neutron decays to a proton, an electron, and an antineutrino via a virtual (mediating) W boson. This is neutron β decay.



An electron and positron (antielectron) colliding at high energy can annihilate to produce B^0 and $\bar{B}^0$ mesons via a virtual Z boson or a virtual photon.



Two protons colliding at high energy can produce various hadrons plus very high mass particles such as Z bosons. Events such as this one are rare but can yield vital clues to the structure of matter.

The Particle Adventure

Visit the award-winning web feature *The Particle Adventure* at **http://ParticleAdventure.org**

This chart has been made possible by the generous support of:
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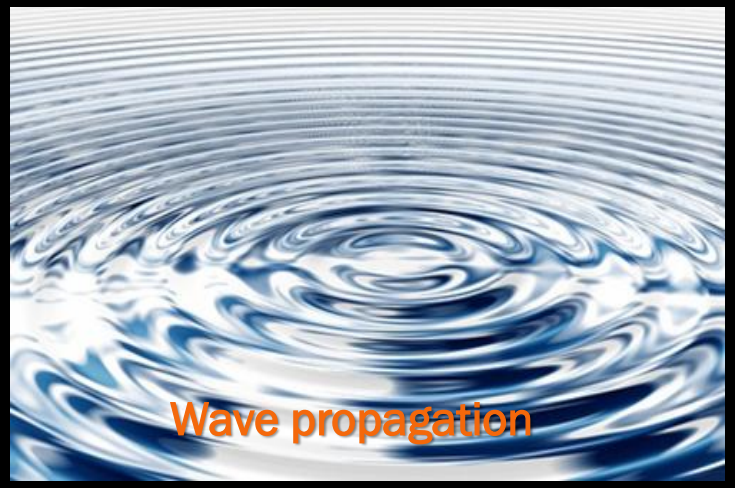
Stanford Linear Accelerator Center
American Physical Society, Division of Particles and Fields
BURLE INDUSTRIES, INC.

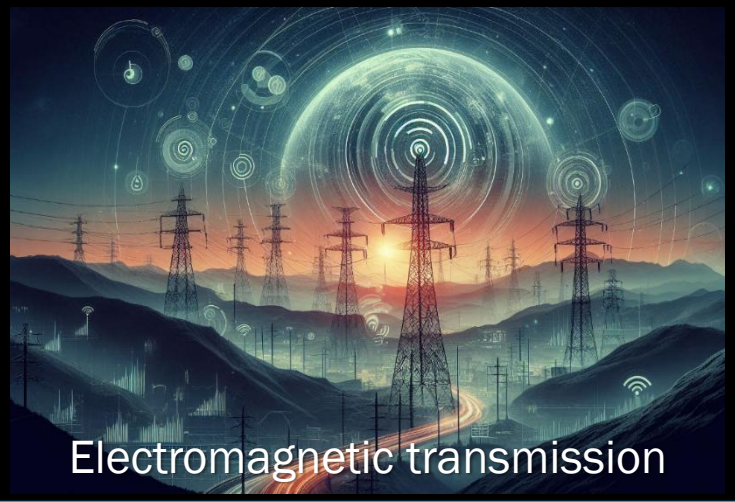
QM built on two false assumptions — monocharged particles, orbital atoms — is fatally flawed!

What Is Light? Wave, Particle, or Both?

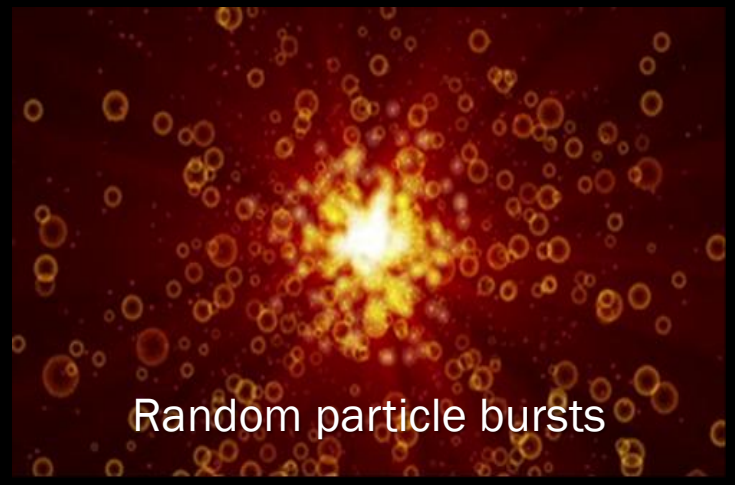
What Is Light? Wave, Particle, or Both?

Wave Motions

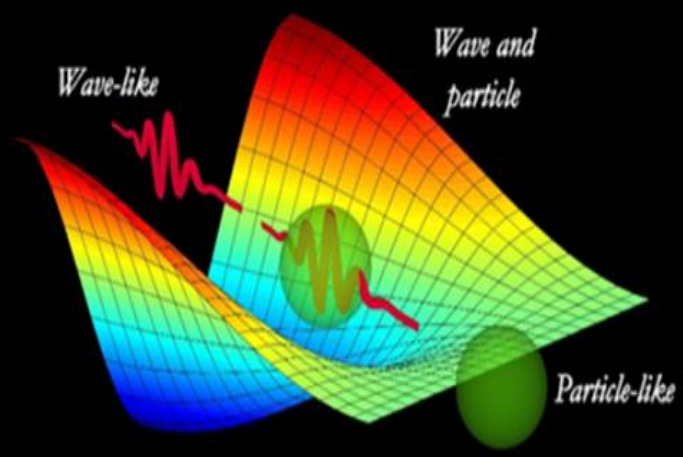




Particle Motions

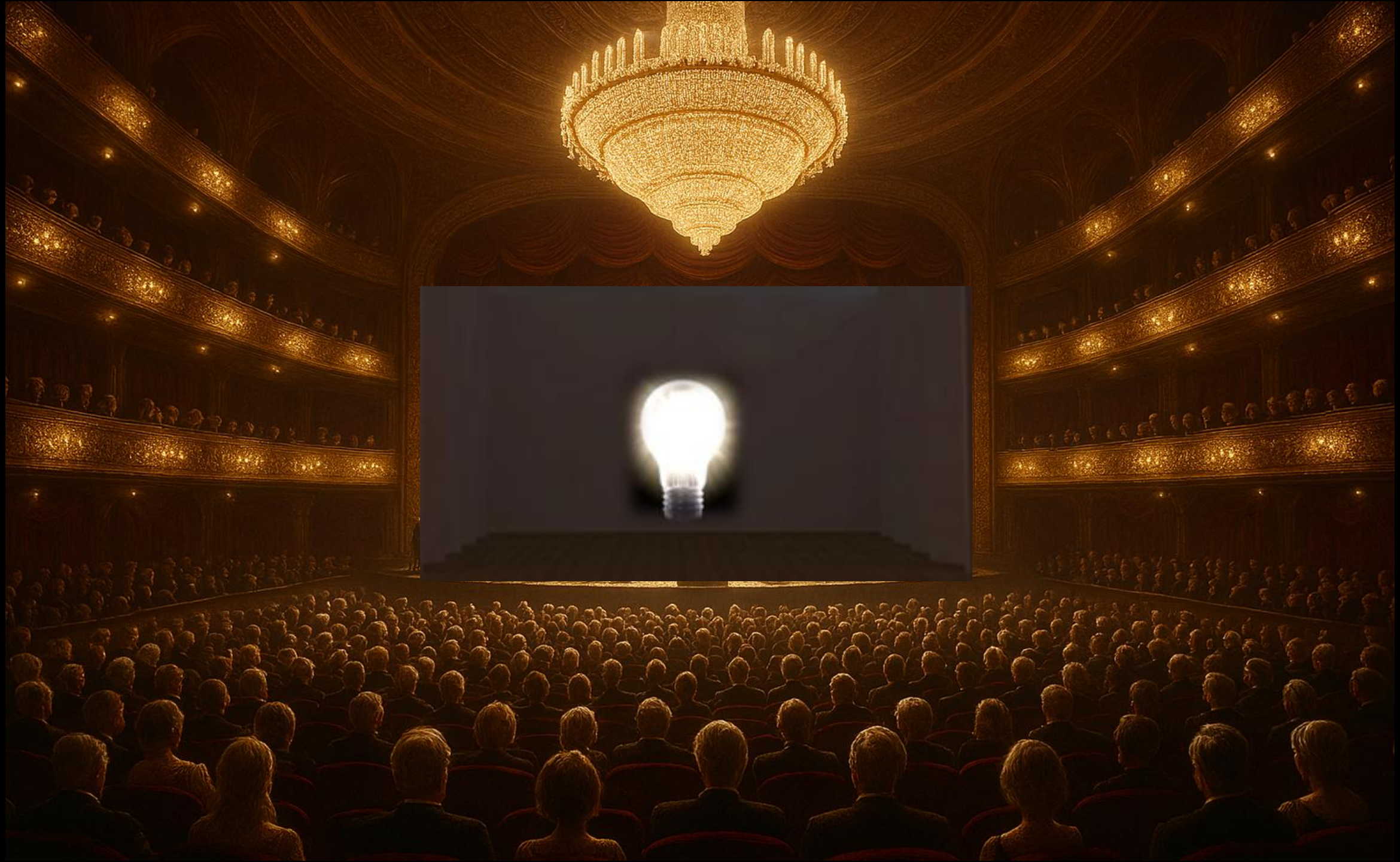


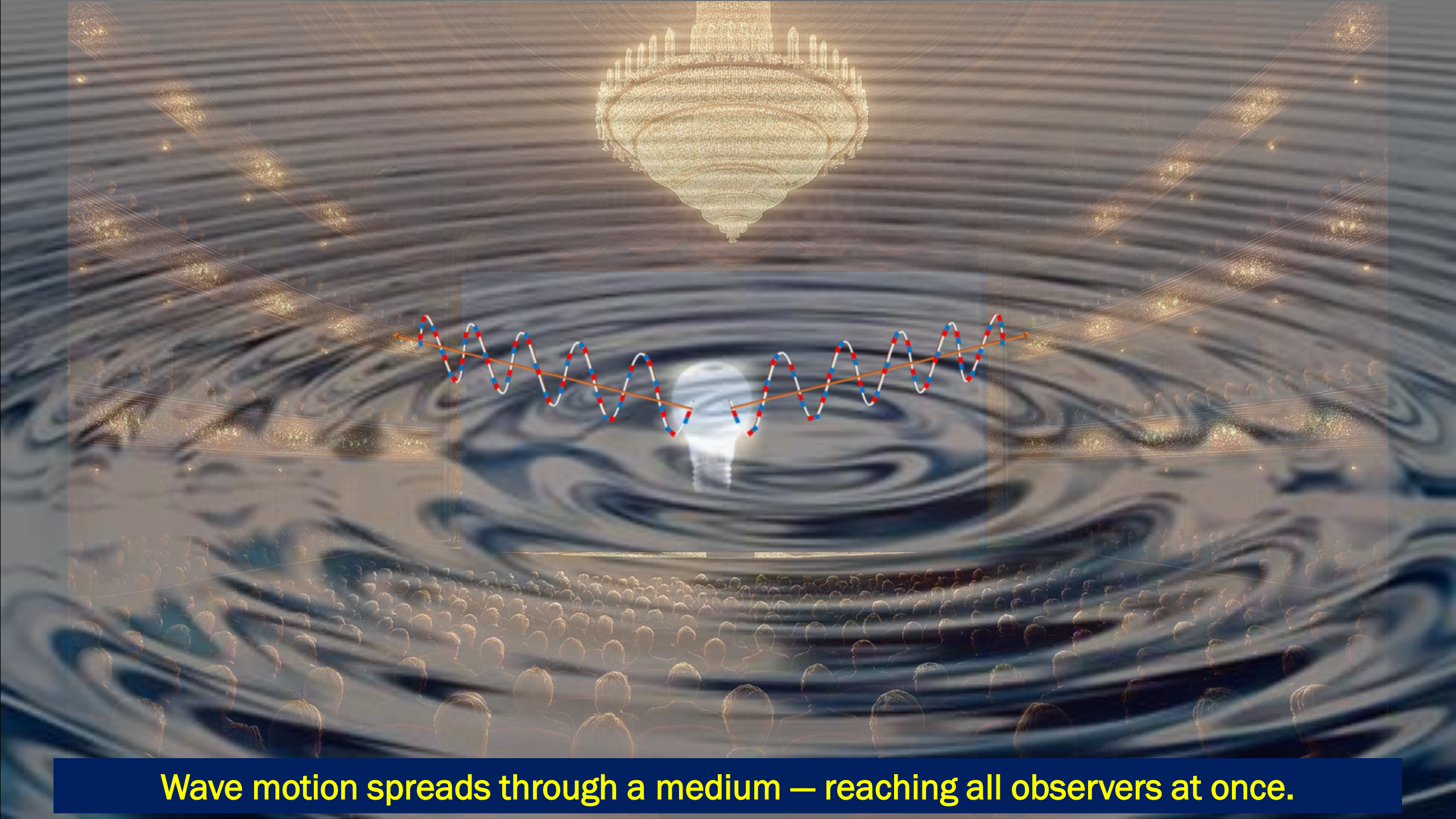
Wave-Particle Duality



- **Wave-like (Before Observation):**
  - Interference
  - Superposition
  - Uncertainty
- **Particle-like (Upon Observation):**
  - Collapse of wavefunction;
  - defined outcome

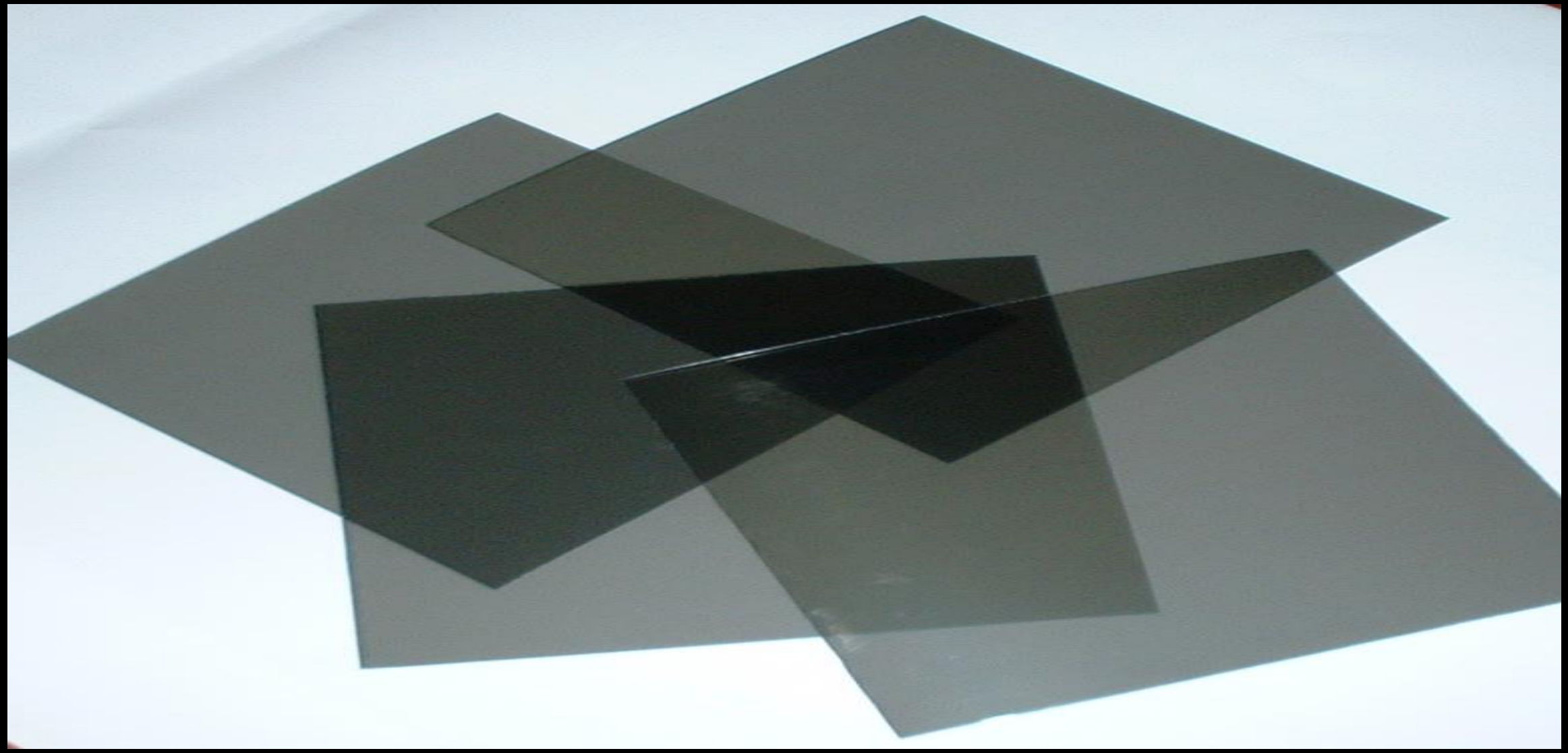
Light = magnetic oscillations propagating through a magnetic medium.





Wave motion spreads through a medium — reaching all observers at once.

Polarizing Film Experiments



Light behaves as a wave — not a stream of particles

Universal Magnetic Medium — Uon Medium

Phenomenon
Waves (or Ripples)

Light is a wave

Waves require a medium

Waves are vibrations of a medium

Vibration requires elasticity

Elasticity arises from magnetism

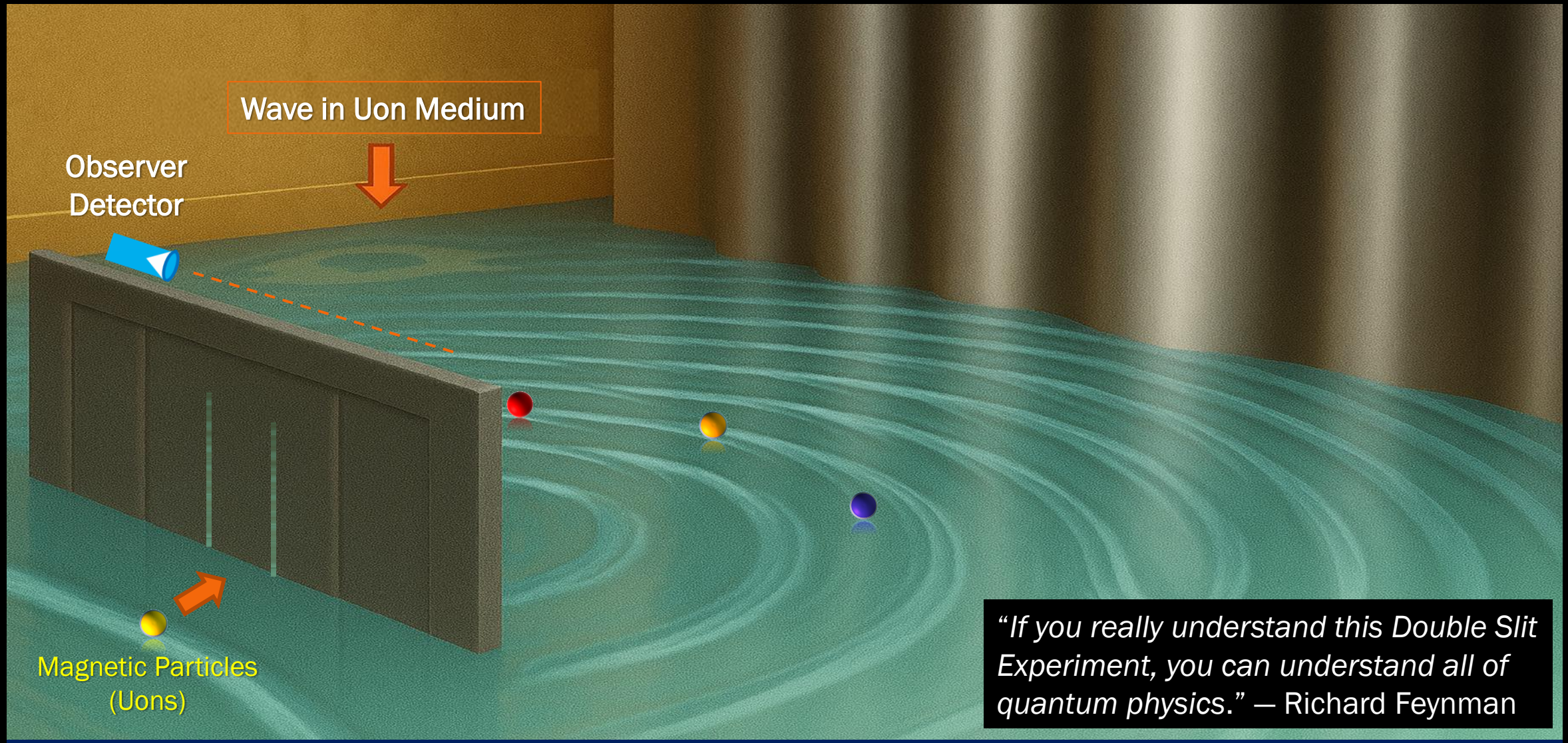
The medium of light is magnetic

Magnetic medium = magnetic particles (Uons)

Underline Structure
Medium (of Light)

Light = magnetic oscillations propagating through a medium of uons.

Double Slit Experiment – Explained

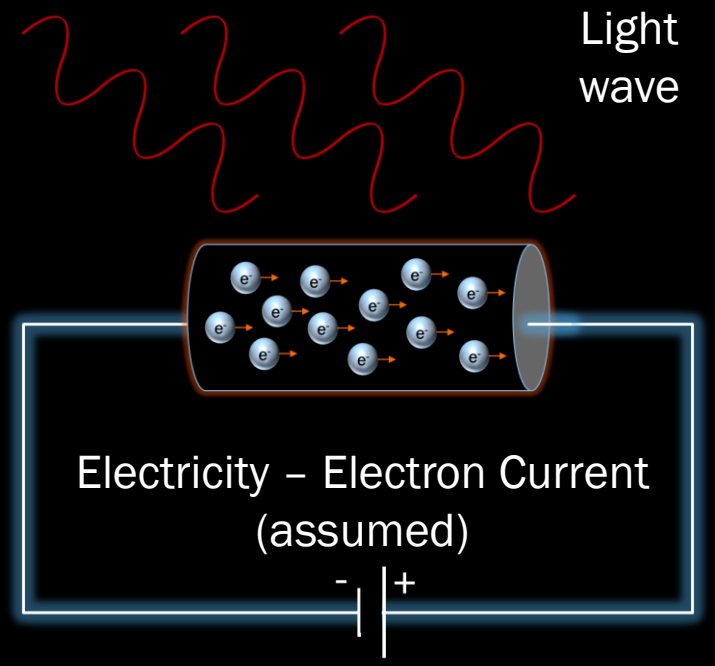


"If you really understand this Double Slit Experiment, you can understand all of quantum physics." — Richard Feynman

Interference = Wave–Particle Interaction, Not Wave–Particle Duality

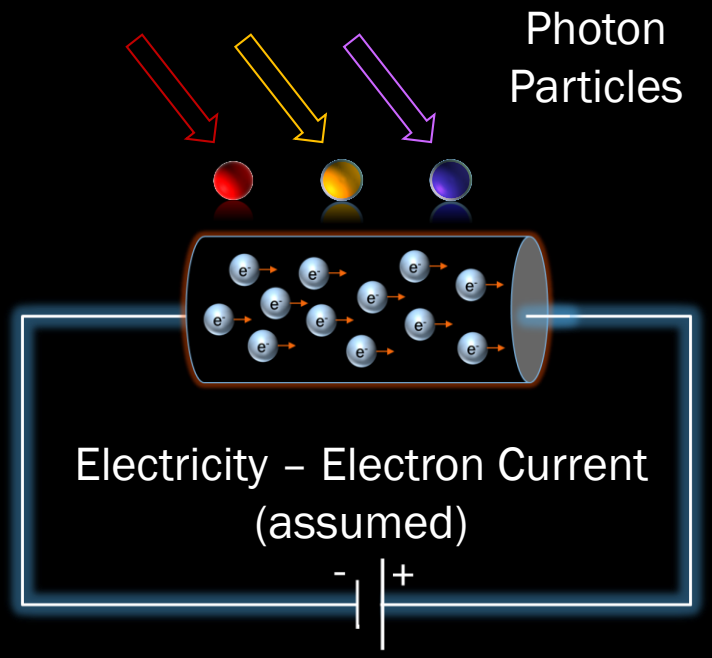
Photoelectric Effect — Explained

Classical



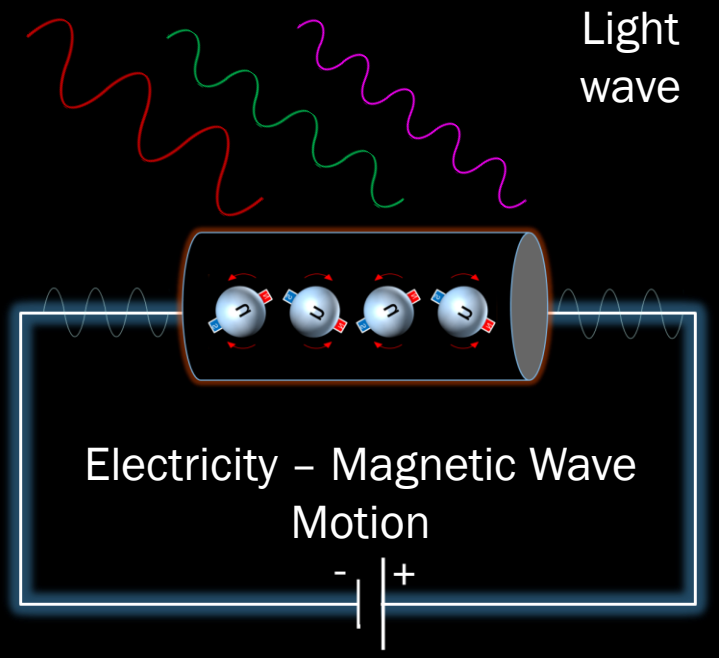
- Light – wave
- Electricity – flow of electrons
- Proportion to light intensity

Einstein



- Light – particles
- Electricity – flow of electrons
- Ejection depends on frequency

Uon Theory

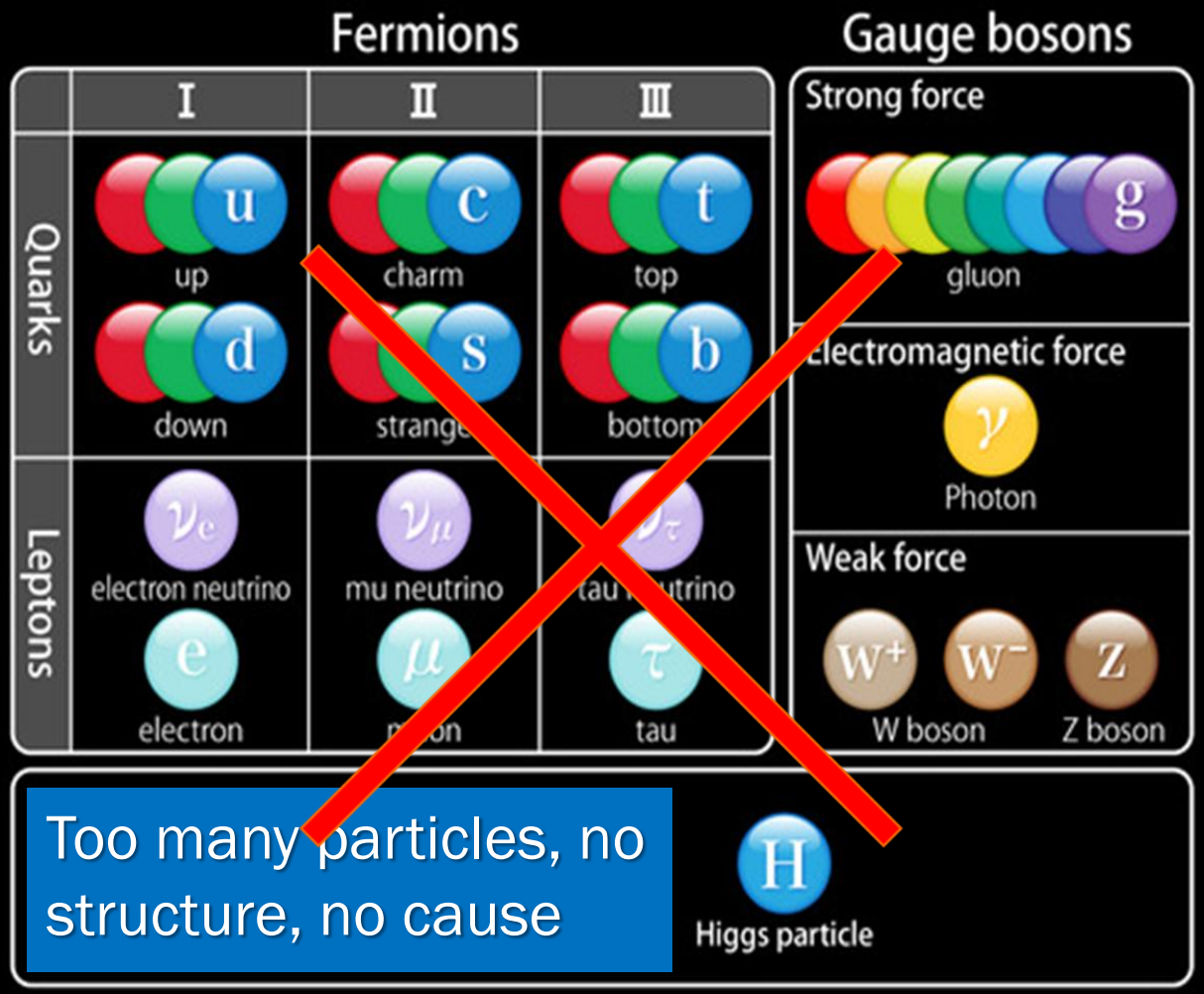


- Light – wave
- Electricity – wave
- Resonance – light/electricity waves

Uon Theory — No electron ejections or flows. No duality. Just wave resonance.

A Fundamental Particle – Uon

The Particle Zoo — Still an Incomplete Picture



- **In the Standard Model:**
  - Dozens of "fundamental" particles:
    - Matter: Quarks and Leptons
    - Forces: Gauge Bosons
- **In Supersymmetry (SUSY):**
  - Every known particle has a corresponding superpartner
    → Double the particle count
  - Still no structural cause or mechanism
- In String Theory:
  - All particles are vibration modes of 1D strings
  - Implies an infinite number of possible particles

What if all forces and particles are manifestations of one fundamental entity – Uon?

Uon — The One and Only Fundamental Particle

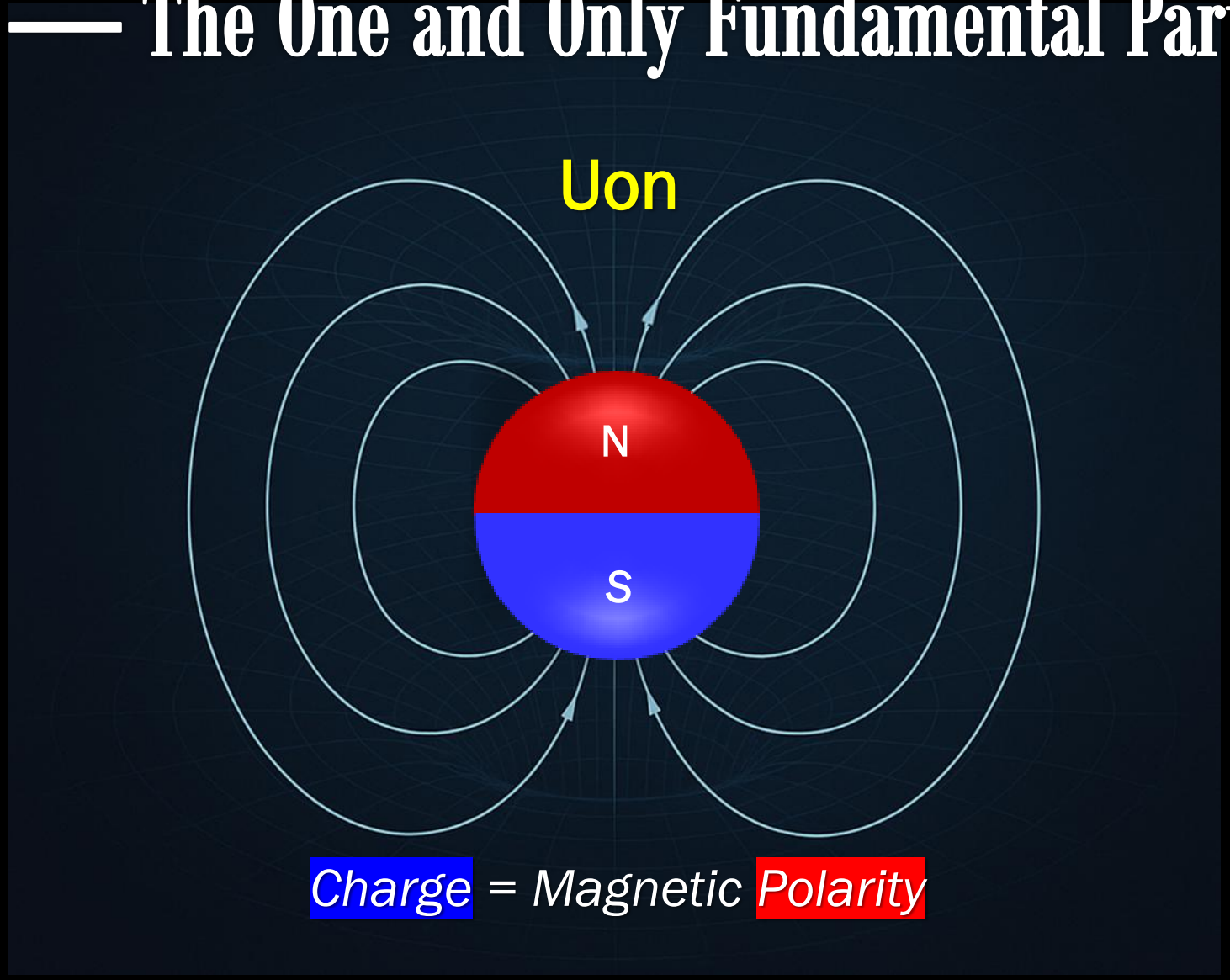
Nature
- A magnetic dipole — North/South poles

Charge
- Charge is magnetic polarity

Mass
- Mass emerges from magnetic interaction of structures with uon fields

Structure
- Physically real form— not abstract geometry

Substance
- Physically real essence — not virtual concept



Uon — The origin and building block of all matter and force through structured magnetic coherence

Medium Interaction
- All waves need a medium — Uon Medium = the true aether

Behavior
- Causal, physical, and structurally coherent

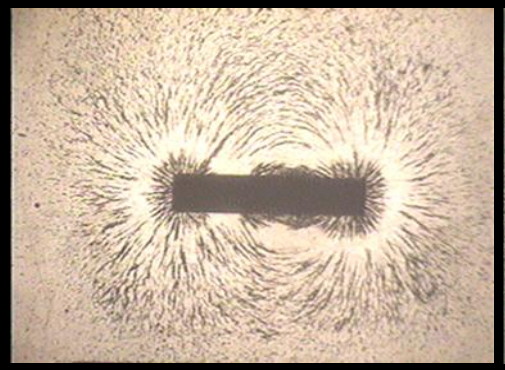
Formation Role
- All matter forms through Uon alignment & bonding

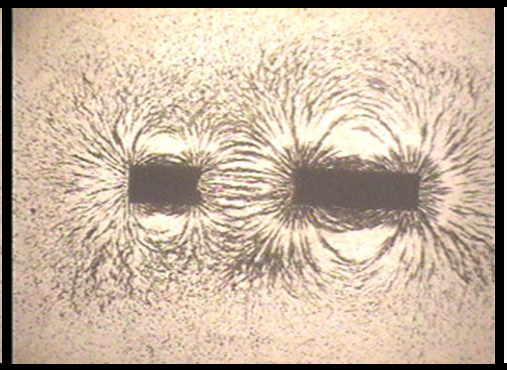
Field Role
- All field forces are magnetic interactions between Uons

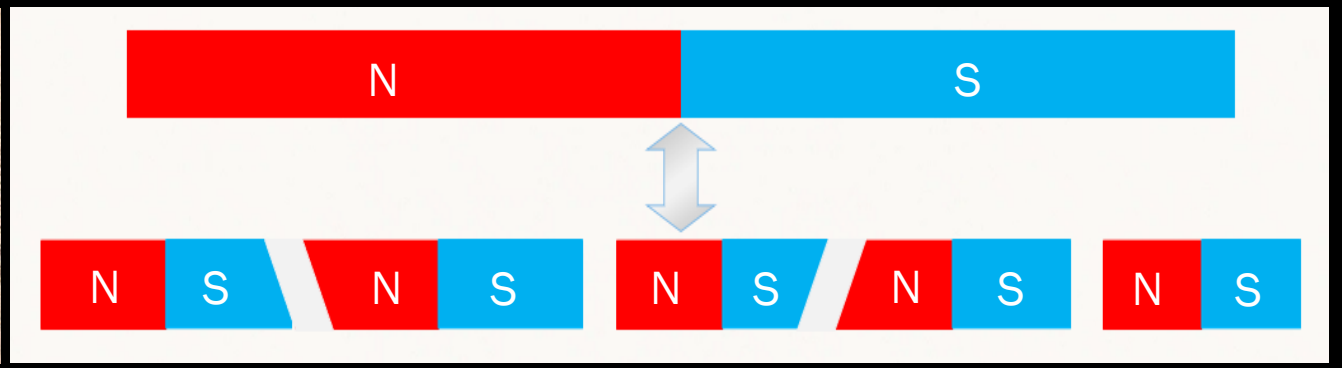
Binding Force
- Magnetic attraction and repulsion

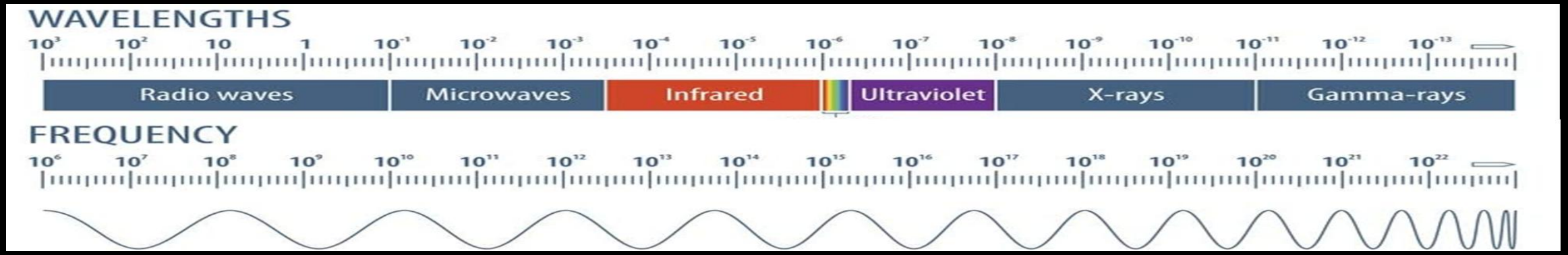
Uon: Geometrically Infinitely Divisible, Physically Indivisible

(→ The Smallest Real Particle)







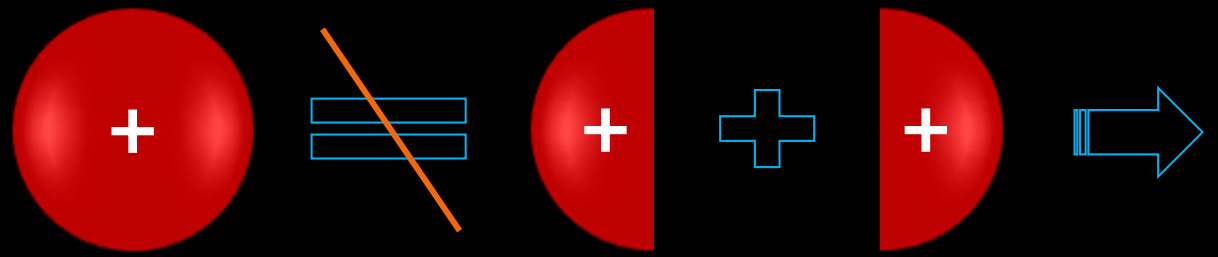


- The uon is the only particle that is structurally infinitely divisible yet physically indivisible.
- No particle in the Standard Model exhibits this property.
- This singular nature makes the uon the true foundation of all matter, energy, and field phenomena.

Uon—The only particle that is structurally infinite divisible, yet physically indivisible

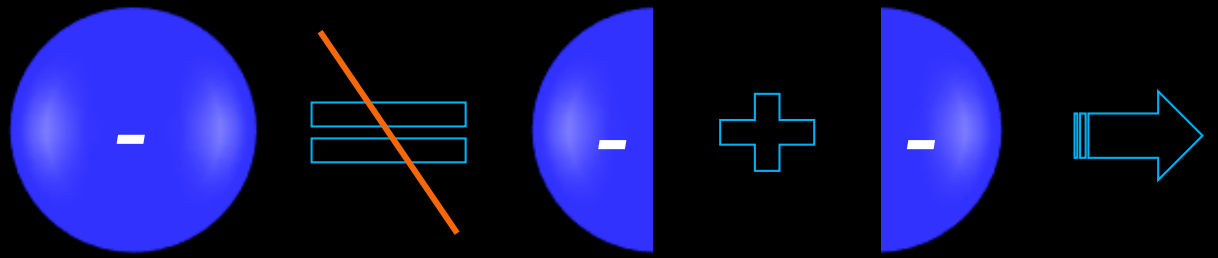
Could Other Particles Be the Smallest? ⟶ No!

Positive



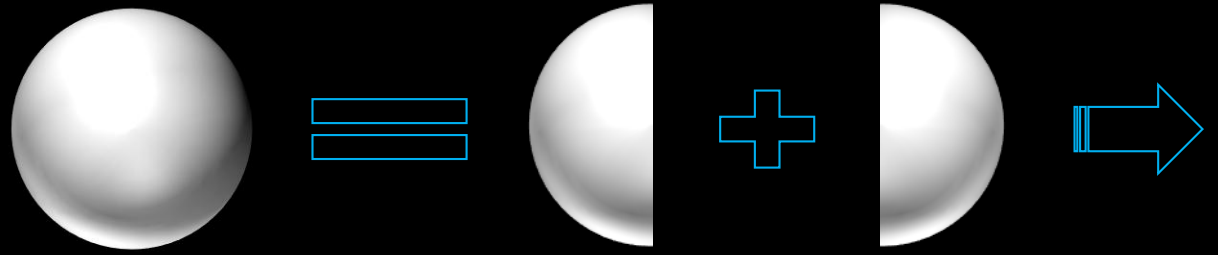
Violates Coulomb's Law
— Like charges repel

Negative



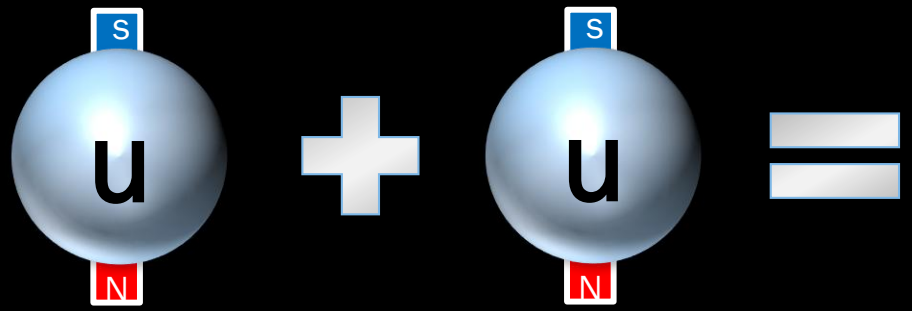
Violates Coulomb's Law
— Like charges repel

Neutral

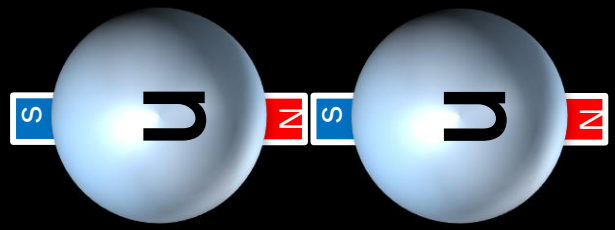


Can't Recombine —
No binding force

Formation of Composite Particles

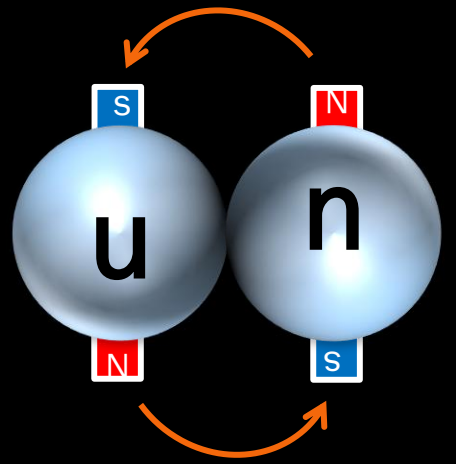


Charged



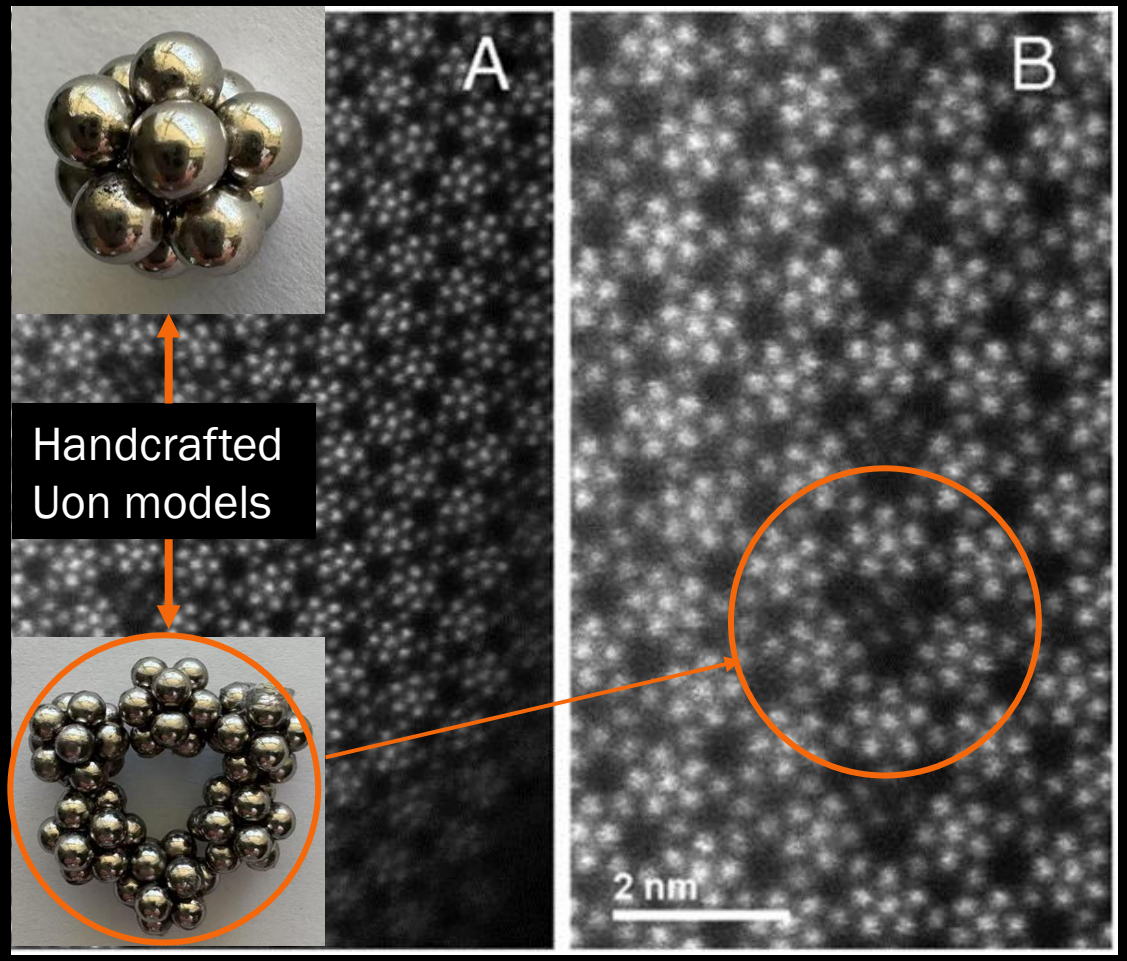
Two uons in series = Charged Particle
(Magnetic continuity — poles align and reinforce)

Neutral

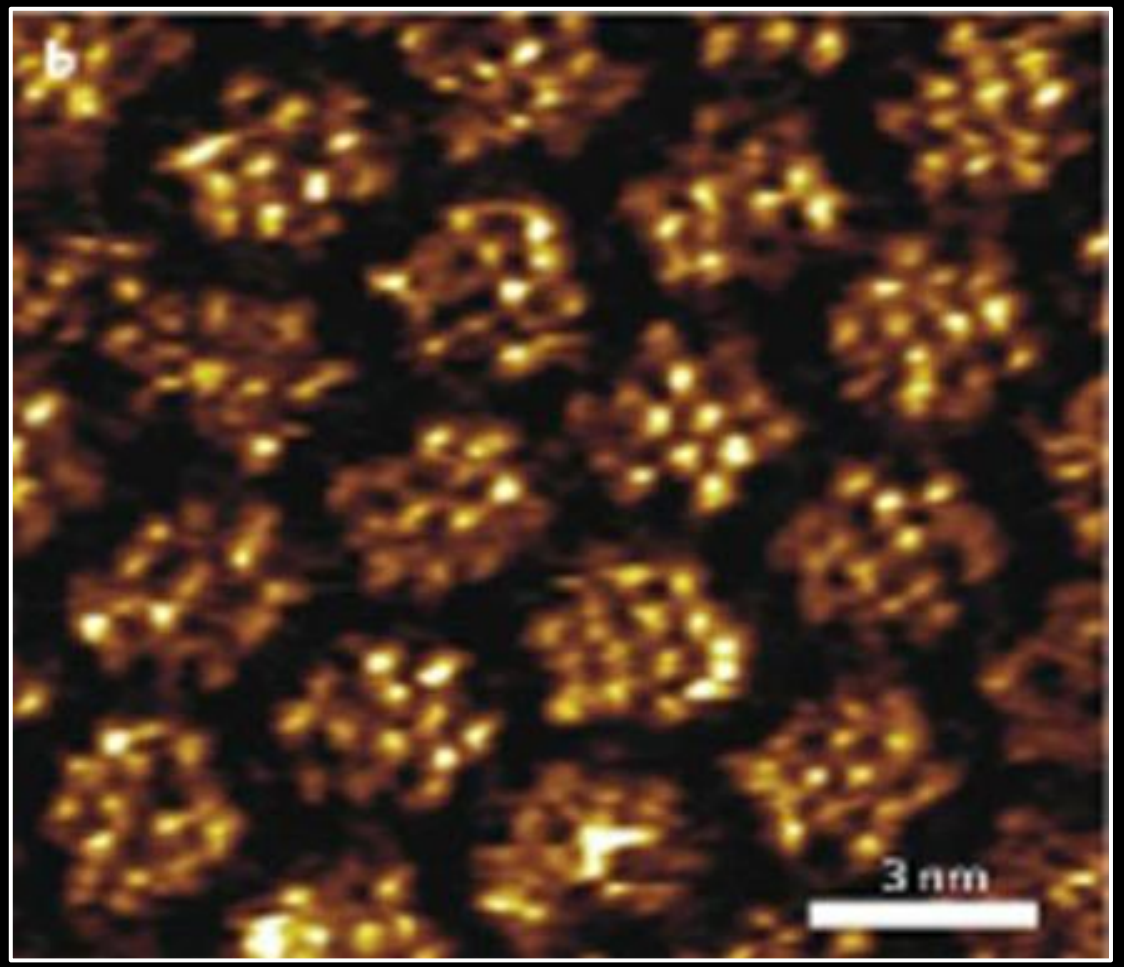


Two uons in parallel = **Neutral Particle**
(Magnetic cancellation — opposing fields nullify)

Experimental Confirmation—Atomic Images of Magnetic Structure



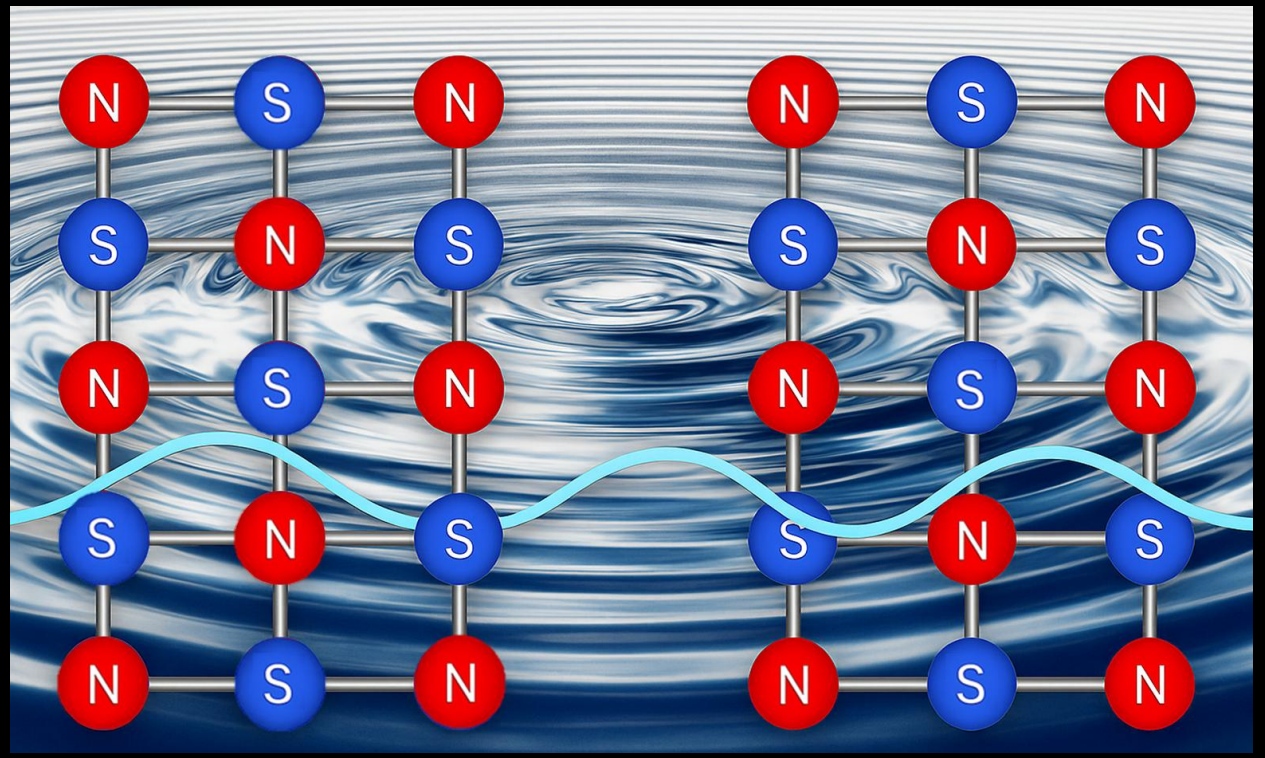
HAADF-STEM Image of a Mo-V-O Material
(*Atomic-scale imaging using aberration-corrected high-angle annular dark-field STEM*)



AFM Image of Calcite Surface
(Atomic force microscopy reveals magnetic field alignment and symmetry

Uon Medium — The True Aetheric Substrate

Magnetic Medium of Uons Filling All Space



Uon Medium = A structured lattice of magnetic dipoles (Uons)

Uon Medium — The universal, foundational, and conductive substrate of all waves, fields, and structures.

Physical
- A magnetic dipole medium that permeates the universe

Composition
- A lattice of real magnetic dipoles — uons

Conductivity
- Guides and propagates magnetic waves directionally

Conduction
- Facilitates coherence and field resonance

Causality
- Provides physical mechanism for all interactions

Space Role
- Occupies all space — the fabric of the universe

Field Role
- Stores, transmits, and shapes magnetic force fields

Wave Role
- Carries and facilitates all wave motion

Formation Role
- Forms structure of matter and fields via magnetic bond

Continuity
- Forms an unbroken continuous medium

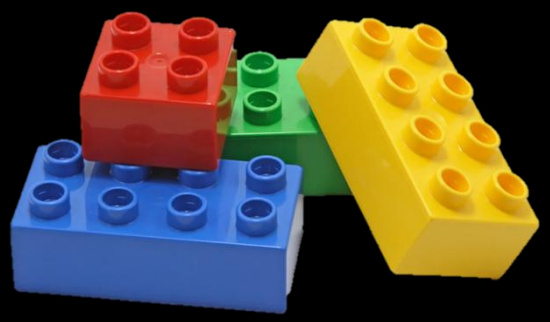
Uon — The Universal Fundamental Particle of the Universe

Fundamental Quantities

- Mass
- Volume
- Charge

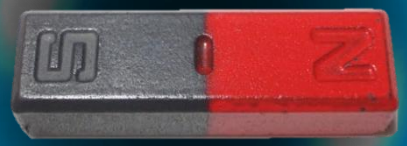
Fundamental Field Forces

- Gravity
- EM Force
- Strong Force
- Weak Force



Building Blocks

Uon



Universal Fundamental Magnetic Particle

Fundamental Laws of Nature

The Mystery of Gravity

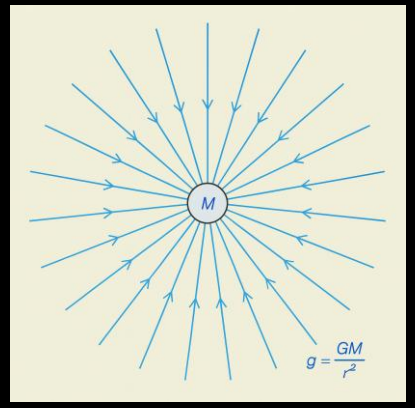
Newton's Gravity — A Fundamental Misstep

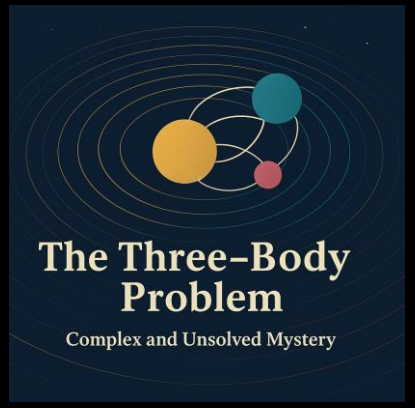
Newton's Gravity

- Gravity ∝ Mass (Scalar)

$$F = G\frac{m_1 m_2}{r^2} \Rightarrow \textit{Force} \propto \textit{Mass}$$

  - Scalars have magnitude only — no direction
  - Fails in multi-body systems — lacks DOFs to constrain the system (e.g., 3-body problem)





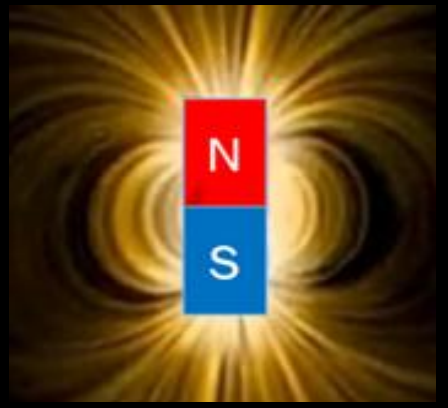
(1-DOF, no directional constraint, unstable/chaotic)

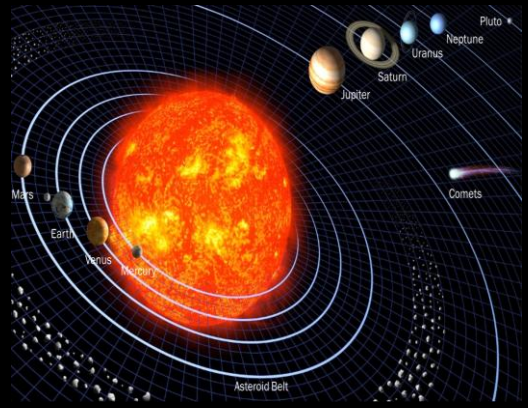
Uon Model

- Force ∝ Magnetism (Vector)

$$F = \Gamma\frac{U_{m1} U_{m2}}{1 + r^2} \Rightarrow \textit{Force} \propto \textit{Magnetic Alignment}$$

  - Vector fields carry both magnitude and direction
  - Successfully models dynamic interactions in complex multi-body systems — e.g., FEA methods

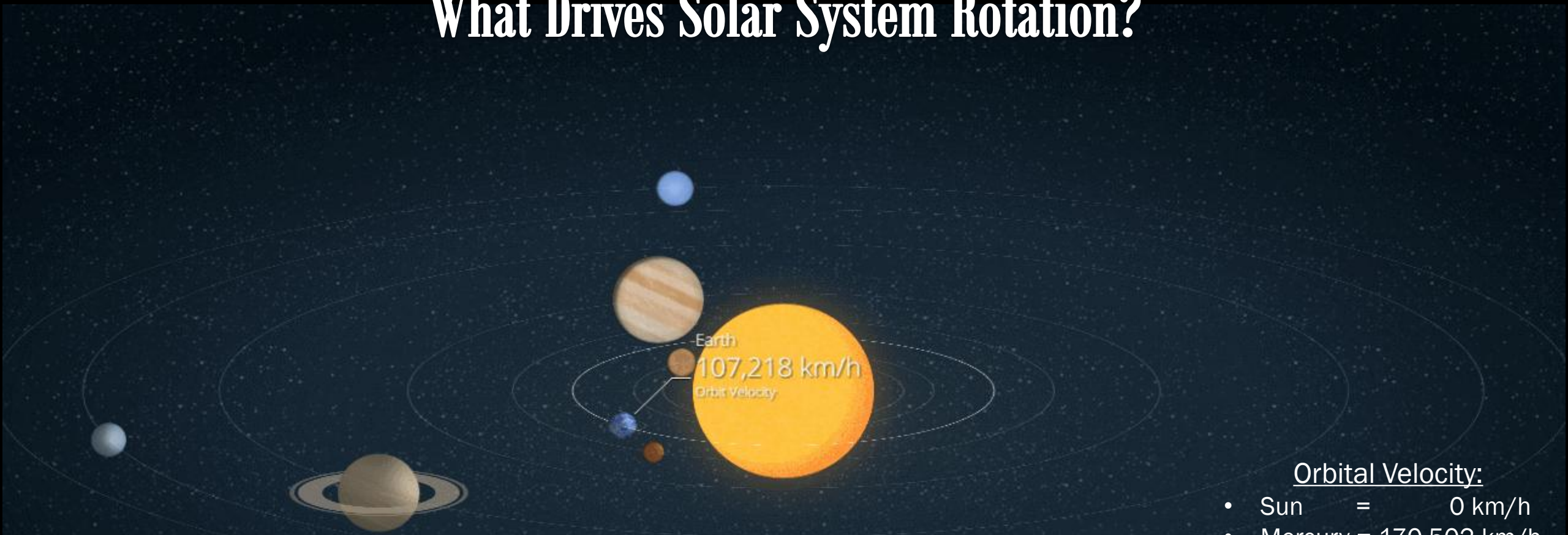




Emergent force from magnetic field alignment

Gravity is not caused by mass, but by the residual magnetism of matter systems.

What Drives Solar System Rotation?



Mercury Venus Earth Mars Jupiter Saturn Uranus Neptune

Orbital Velocity:

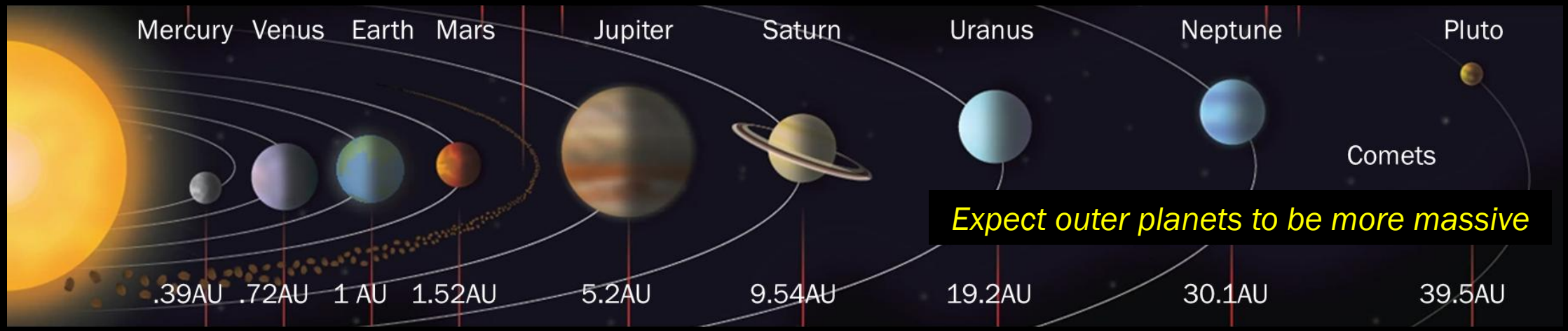
- Sun = 0 km/h
- Mercury = 170,502 km/h
- Venus = 126,074 km/h
- Earth = 107,218 km/h
- Mars = 86,677 km/h
- Jupiter = 47,002 km/h
- Saturn = 34,701 km/h
- Uranus = 24,377 km/h
- Neptune = 19,566 km/h
- Pluto = 17,096 km/h

Pluto's Orbit — Defying Mass-Based Gravity

- **Pluto defies Newtonian predictions**
  - Mass: ~0.16% Earth masses (< Moon)
  - Distance: ~40 AU (5.9 Bil. km from Sun)
  - Maintains stable orbit and atmosphere
- **Conventional Paradox:**
  - Mass too low
  - Distance too great
  - Atmosphere should escape

- **Uon Theory Explanation:**
  - Magnetic coupling between Pluto and solar magnetic field explains orbital stability and atmospheric retention

Note: 1 AU (Astronomical Unit) =149.6 million kilometers (92.96 million miles)



Expect outer planets to be more massive

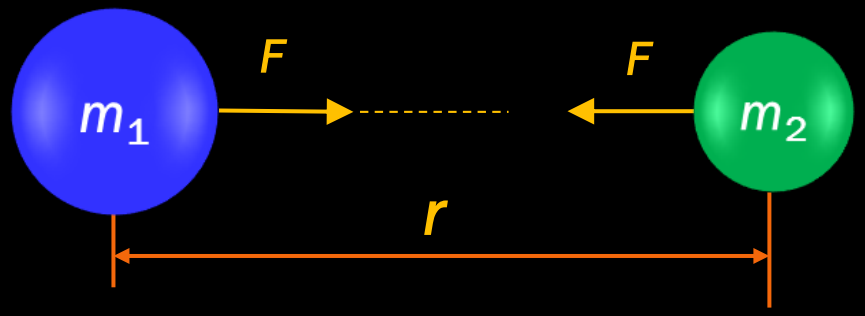
Magnetism, not mass, holds Pluto in place

Unraveling Action at a Distance — The Missing Medium

FLAWED

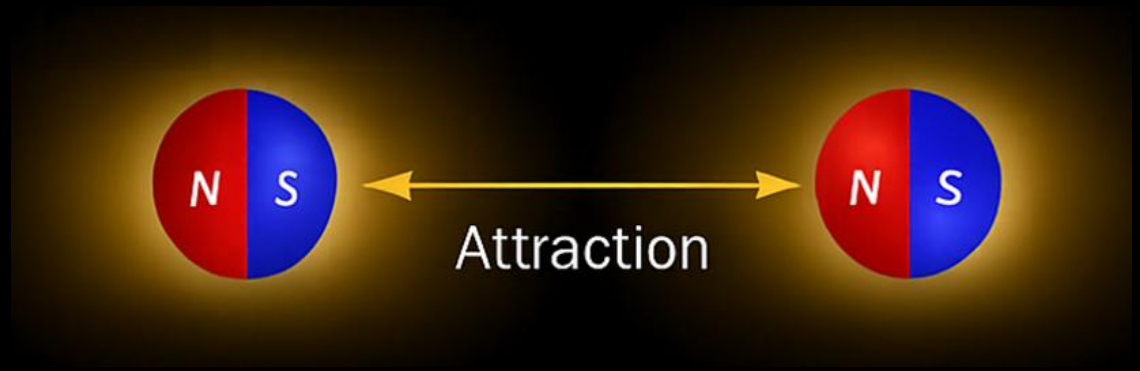
Newton's Gravity

- Assumes force acts across empty space
- Implies instantaneous force transmission
- No medium, no mechanism for interaction
  "That one body may act upon another across empty space, without mediation, is absurd to me." — Isaac Newton (paraphrased)
- Gravity treated as a fundamental force



Uon Theory of Gravity

- Force is transmitted through the **magnetic field** — the Uon Medium — not across empty space.
- Force propagates at finite speed, limited by field transmission rate
- Gravity is not fundamental, but an emergent magnetic effect



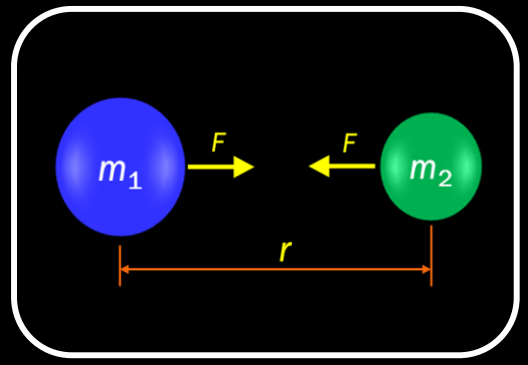
No Medium, No Action — Gravity Emerges as a Residual Magnetic Interaction

Gravity's Unidirectional Pull — A Conceptual Breakdown

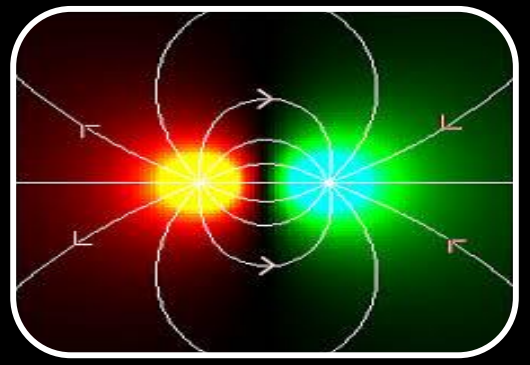
- **Unique Problem with Gravity:**
  - Always attractive — no repulsion
  - Unidirectional — unlike all other known forces

Force	Nature
Gravity	Attractive only
Electromagnetic	Attractive & Repulsive
Strong	Attractive & Repulsive
Weak	Attractive & Repulsive

Gravity

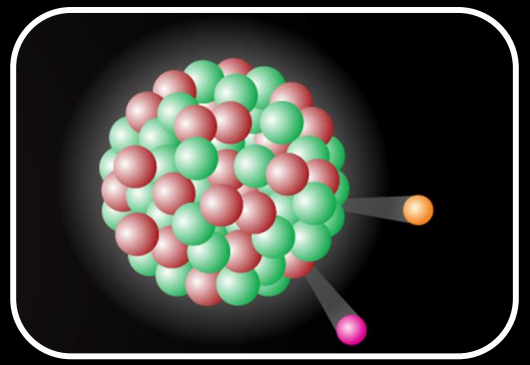


Electromagnetic



Strong

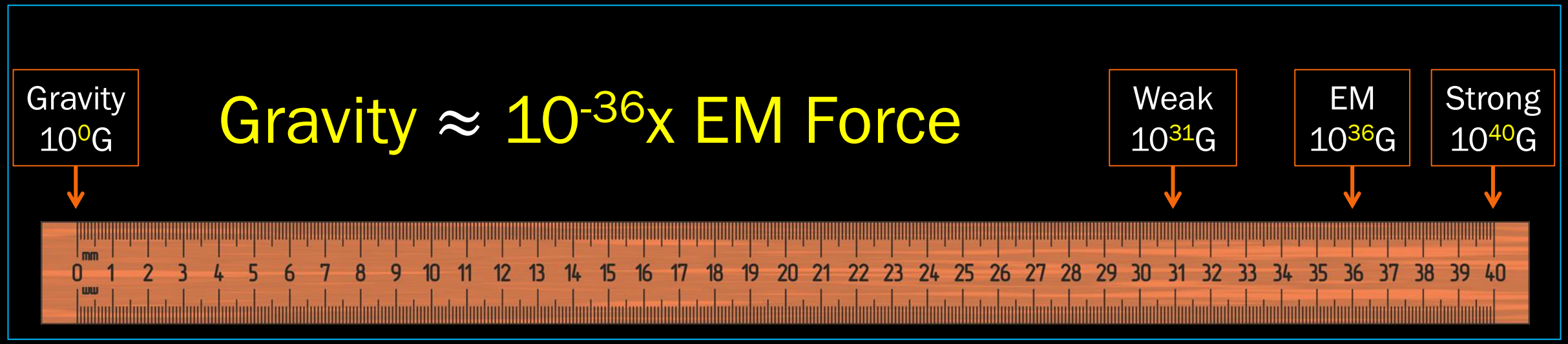
Weak



- **Why This Matters:**
  - Nature does not make monopoles — only dipoles.
  - Magnetism inherently allows both attraction and repulsion

A universe driven by attraction alone collapses — only dipoles sustain structure.

The Magnitude Disparity: Gravity vs. EM Force



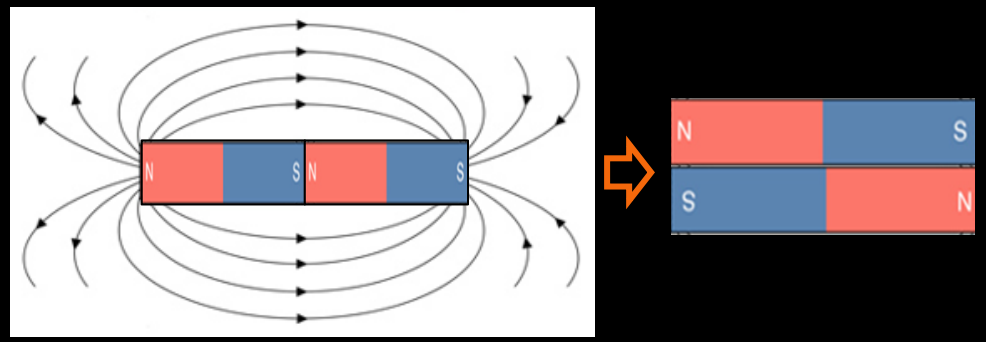
Interaction Type	Relative Strength	Range (m)	Act Upon
Gravitational Force	1	10^{-15}	All Matter
Weak Force	10^{31}	∞	Nucleus
Electromagnetic Force	10^{36}	10^{-18}	Charged Particles
Strong Force	10^{40}	∞	Quarks

Magnetic Forces Independent of Mass

(Magnetic Force Can Change — Without Changing Mass)

Demonstration Analogy:

- Take two magnets ⟶ aligned to attract ⟶ fold one ⟶ net force drops
- Mass is unchanged
- Magnetic force weakens due to field orientation



Before After

Implication for Gravity:

- Planets with same mass can have different “gravitational” behavior
- True driver is net magnetic field structure, not quantity of mass

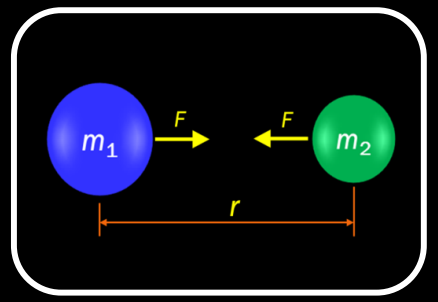
Before

After folding magnets

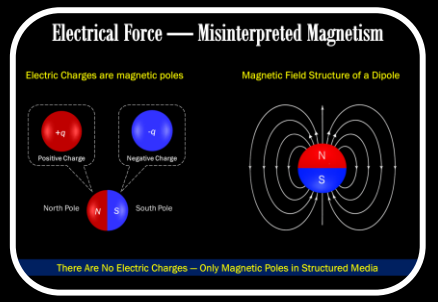
Takeaway: Force ≠ mass — it’s magnetic configuration that determines force.

Unification of Fundamental Forces

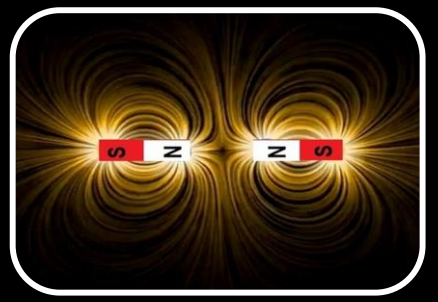
Unification of All Forces — From Fundamental to Emergent Forces



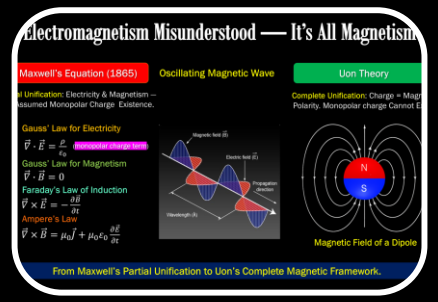
Gravity



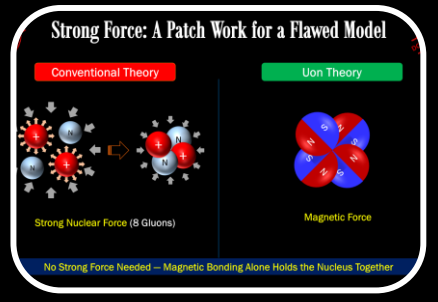
Electrical Force



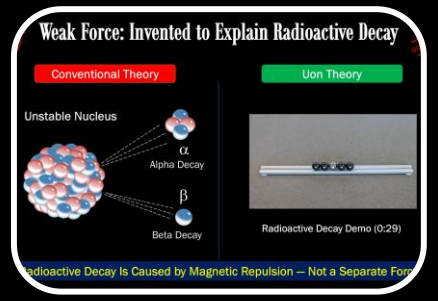
Magnetic Forces



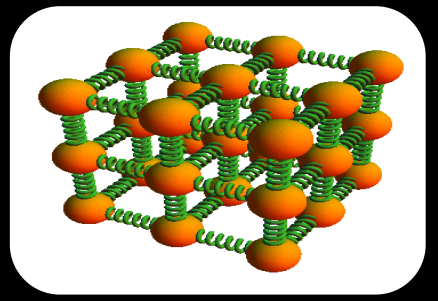
Electromagnetic



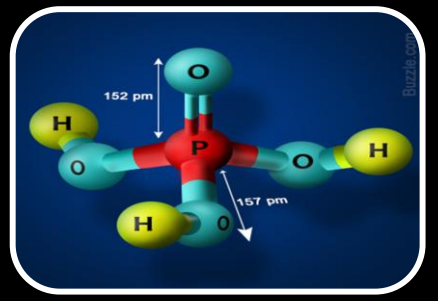
Strong Forces



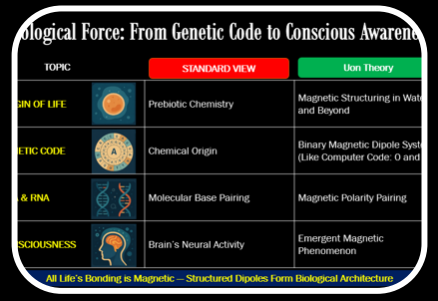
Weak Forces



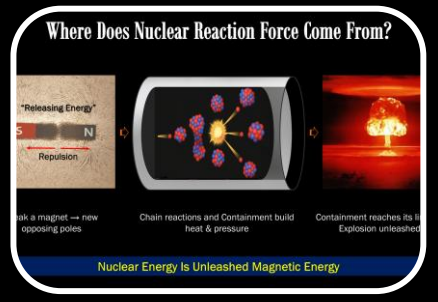
Elastic Force



Chemical Force



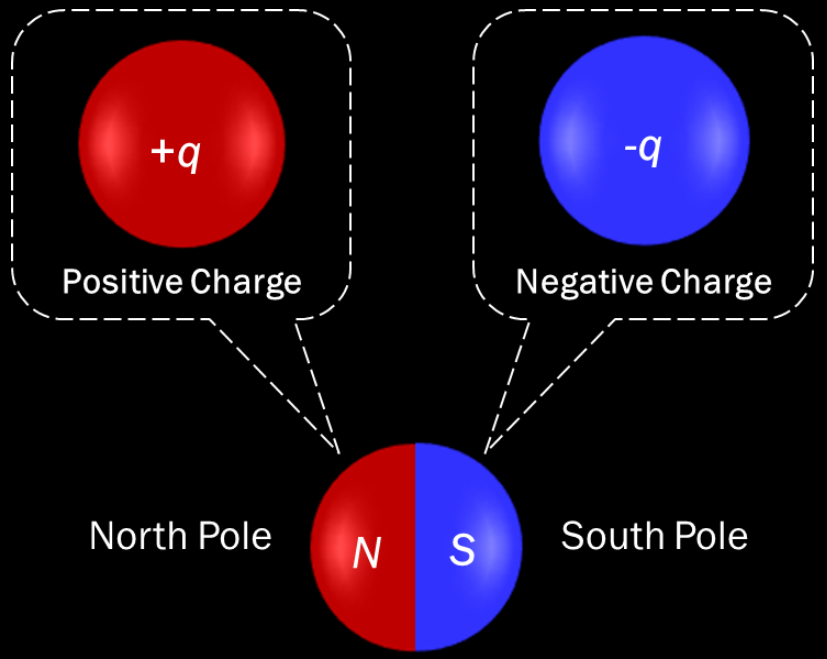
Biological Force



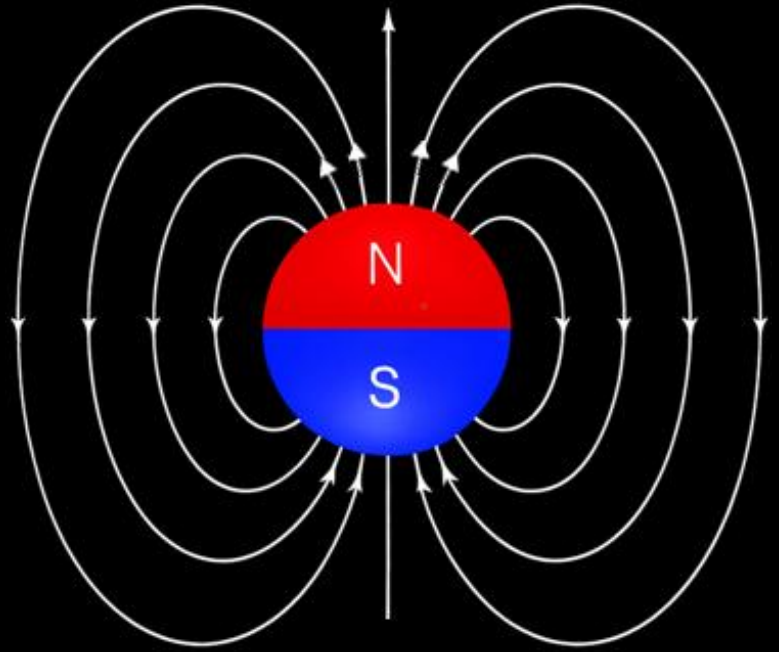
Nuclear Reaction

Electrical Force — Misinterpreted Magnetism

Electric Charges are magnetic poles



Magnetic Field Structure of a Dipole

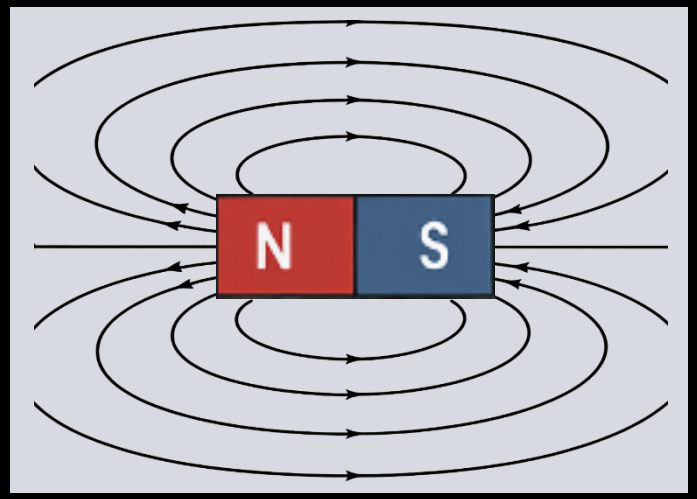


All “electrical” force is magnetic in origin

Magnetism — The Fundamental Force of the Uon Medium

Conventional View

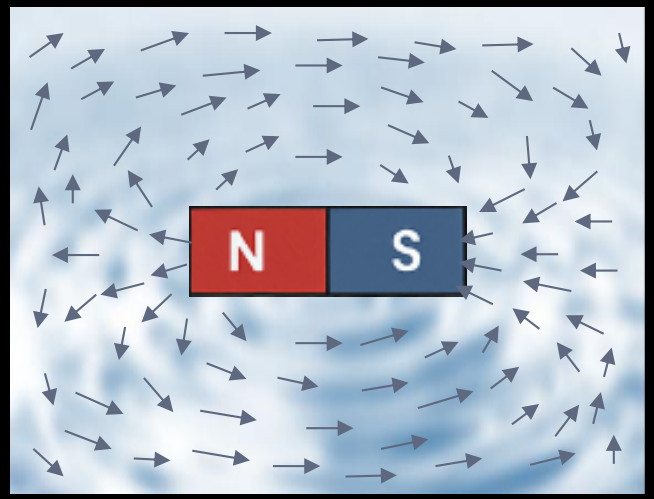
- Defined as a fundamental force
- Assumed to operate through emptiness — no medium or physical substance required



Abstract Lines in Empty Space

Uon Theory

- Fundamental force from magnetic field interactions in the Uon Medium
- Not acting across emptiness — requires real substance: the Uon Medium



Real Uon Medium — Structured Field

Magnetism — the fundamental force exerted by magnetic fields in the Uon Medium

Electromagnetism Misunderstood — It's All Magnetism

Maxwell's Equation (1865)

Partial Unification: Electricity & Magnetism — But Assumed Monopolar Charge Existence.

FLAWED

- Gauss' Law for Electricity

$$\vec{\nabla} \cdot \vec{E} = \frac{\rho}{\varepsilon_0}$$ (monopolar charge term)

- Gauss' Law for Magnetism

$$\vec{\nabla} \cdot \vec{B} = 0$$

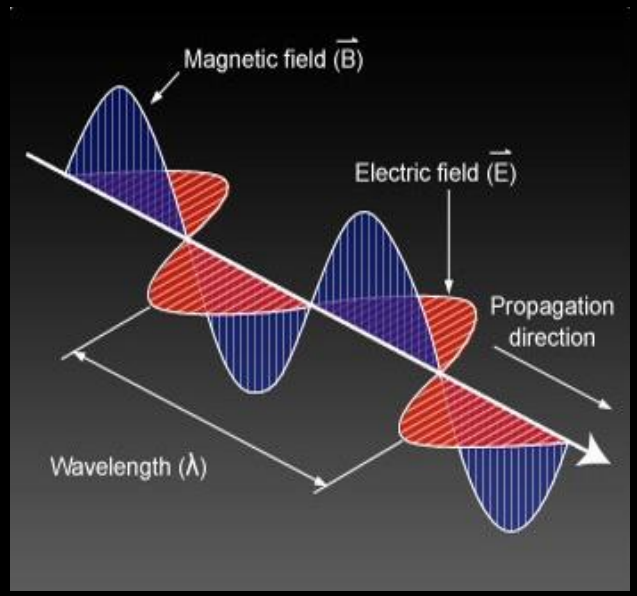
- Faraday's Law of Induction

$$\vec{\nabla} \times \vec{E} = -\frac{\partial \vec{B}}{\partial t}$$

- Ampere's Law

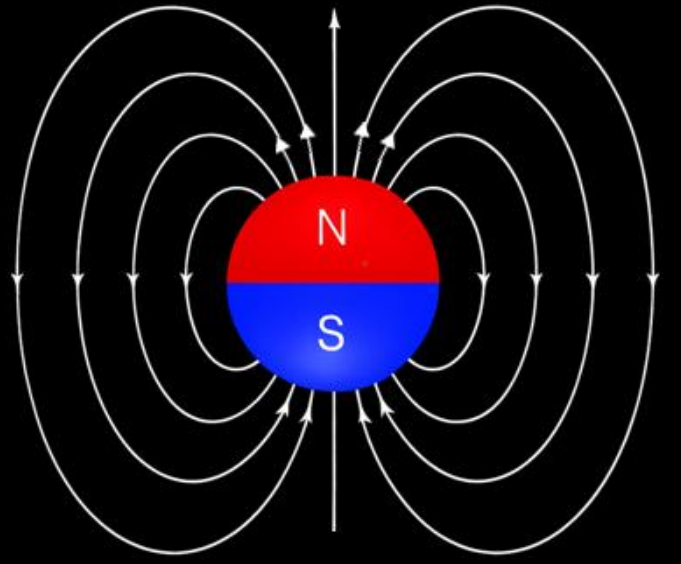
$$\vec{\nabla} \times \vec{B} = \mu_0 \vec{J} + \mu_0 \varepsilon_0 \frac{\partial \vec{E}}{\partial t}$$

Oscillating Magnetic Wave



Uon Theory

Complete Unification: Charge = Magnetic Polarity. Monopolar charge Cannot Exist.



Magnetic Field of a Dipole

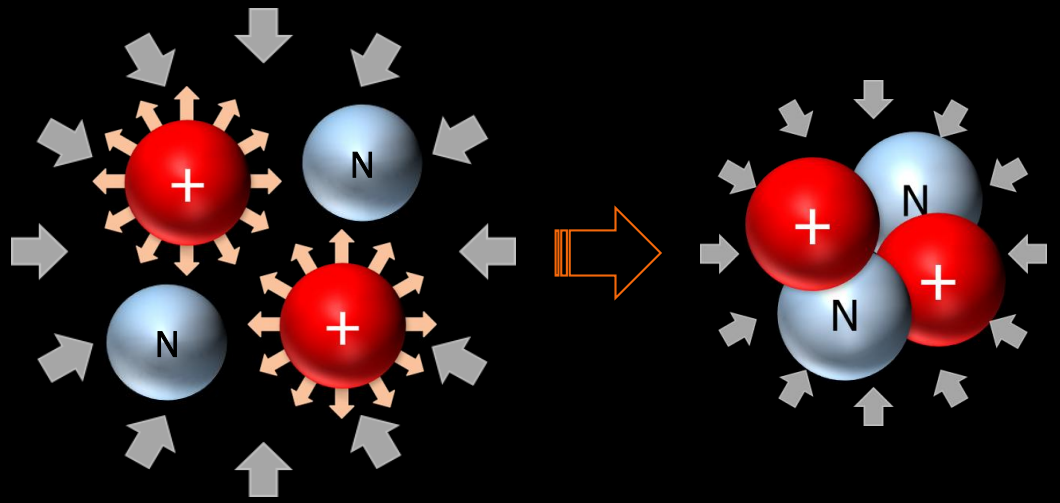
From Maxwell's Partial Unification to Uon Theory's Complete Magnetic Framework.

Strong Force: A Patch Work for a Flawed Model

DOES NOT EXIST

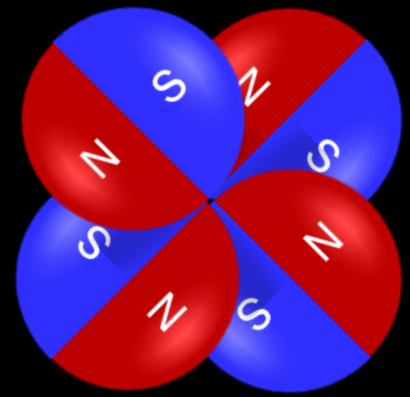
DOES NOT EXIST

Conventional Theory



Strong Nuclear Force (8 Gluons)

Uon Theory



Magnetic Force

No Strong Force Needed — Magnetic Bonding Alone Holds the Nucleus Together

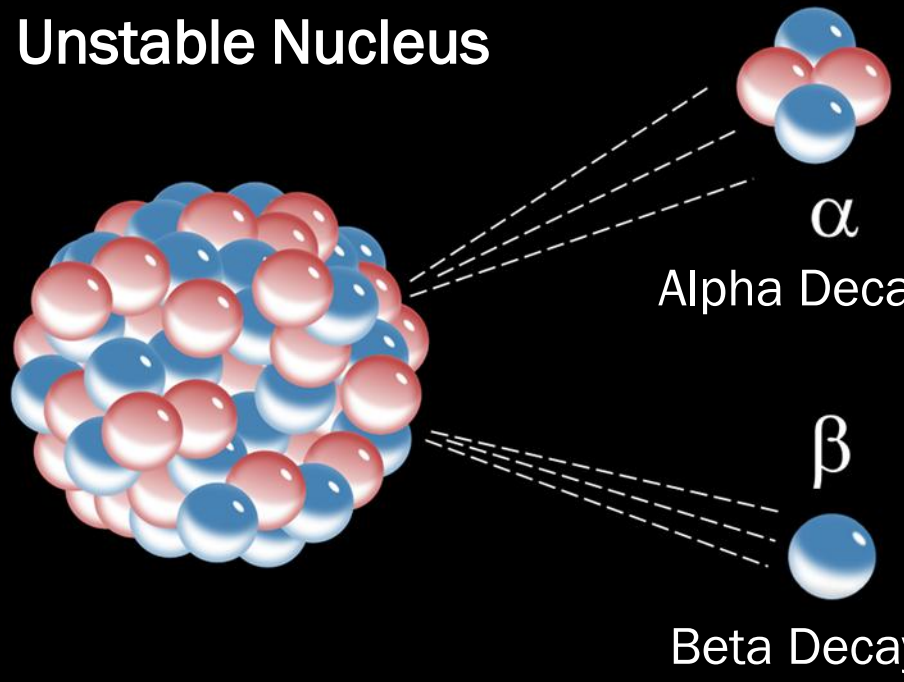
Weak Force: Invented to Explain Radioactive Decay

DOES NOT EXIST

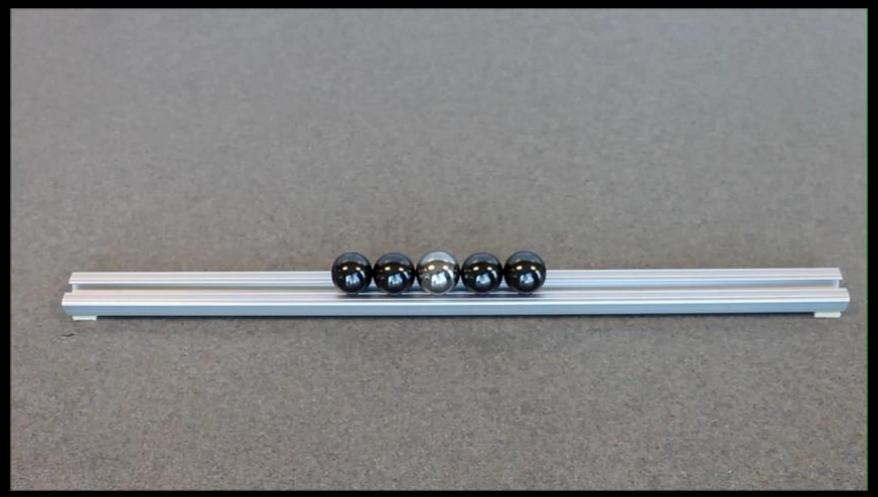
DOES NOT EXIST

Conventional Theory

Unstable Nucleus



Uon Theory



Radioactive Decay Demo (0:29)

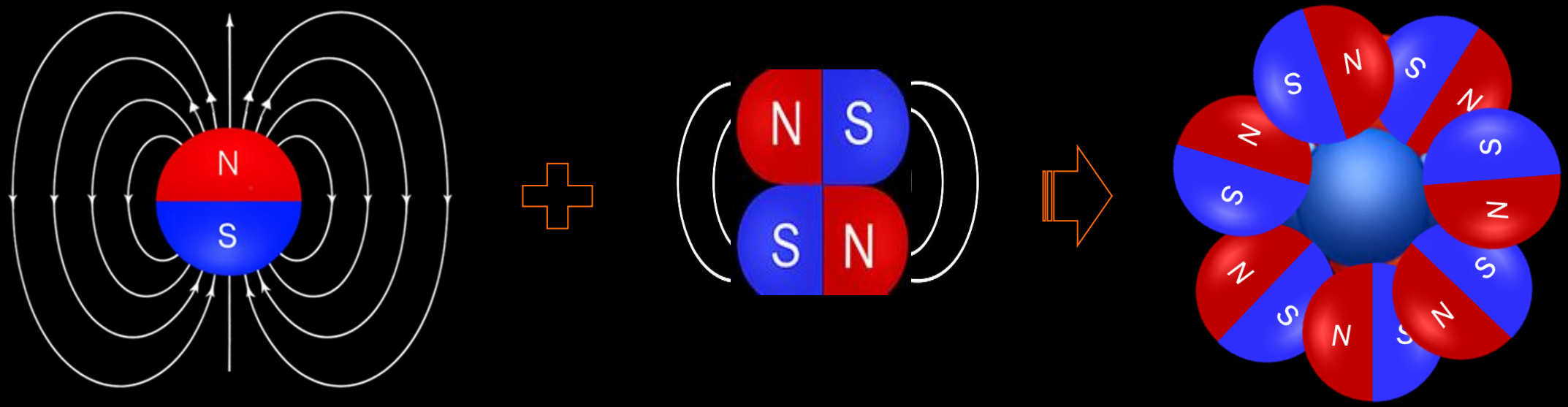
Radioactive Decay Is Caused by Magnetic Repulsion — Not a Separate Force

Why Protons and Neutrons Attract Each Other

Proton

Neutron

Nucleus



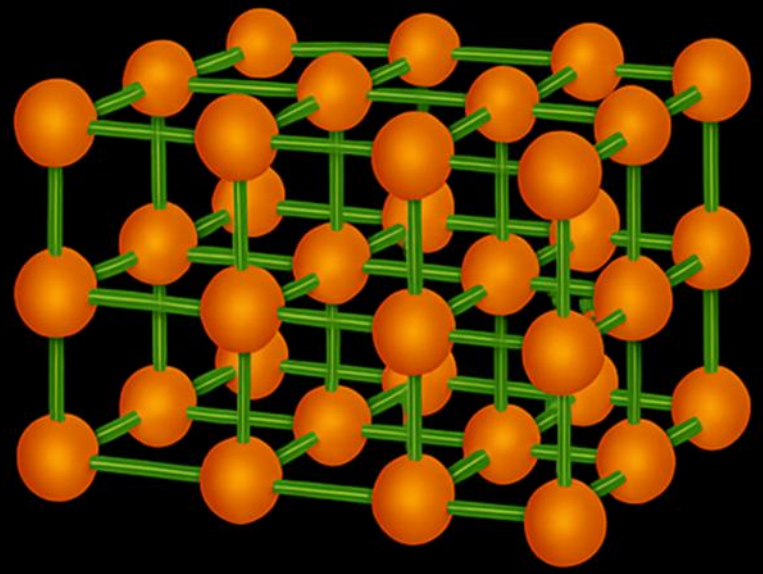
Not only protons but neutrons too are magnets

Neutrons Are Not Neutral at Close Range — Magnetic Structure Drives Nucleon Bonding.

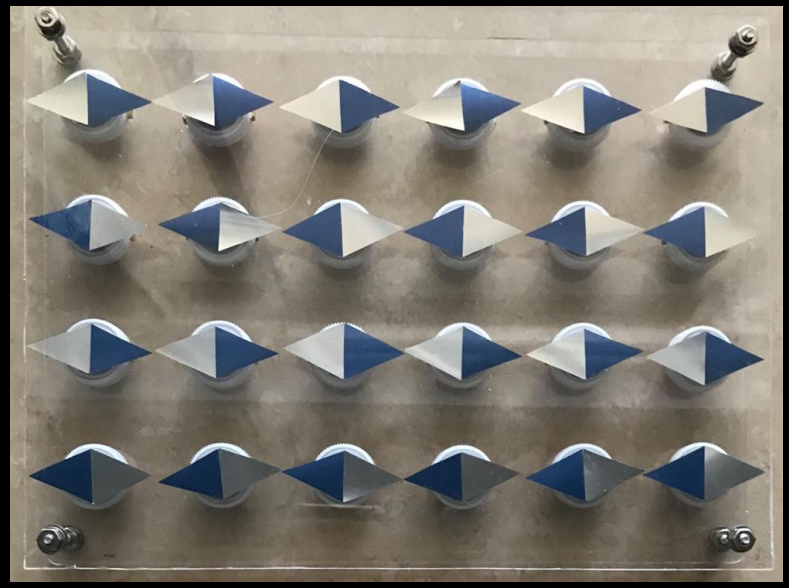
Elastic Force — A Magnetic-Bonded Structural Response

Elastic Force

Elastic force is the restoring force that returns a material to its original shape after being stretched or compressed.



Elasticity Force Demo (0.18)

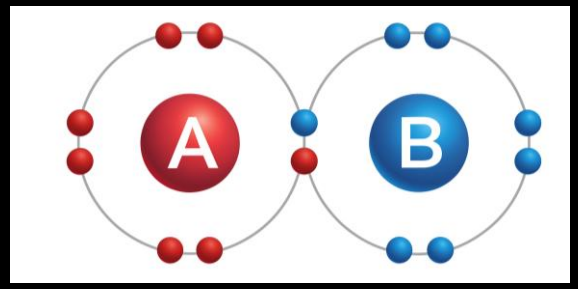


Elastic Force Originates from Magnetic Bonding

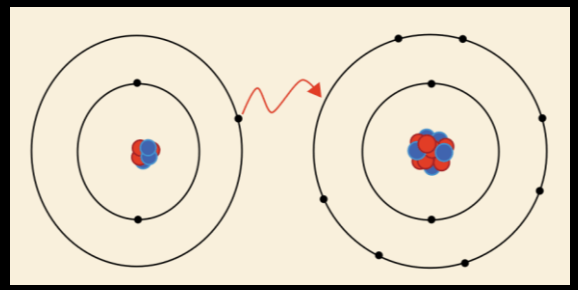
Chemical Bonds: Classical vs. Uon Explanation

Conventional View

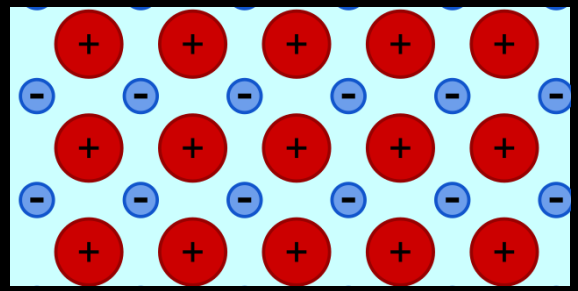
Covalent bond



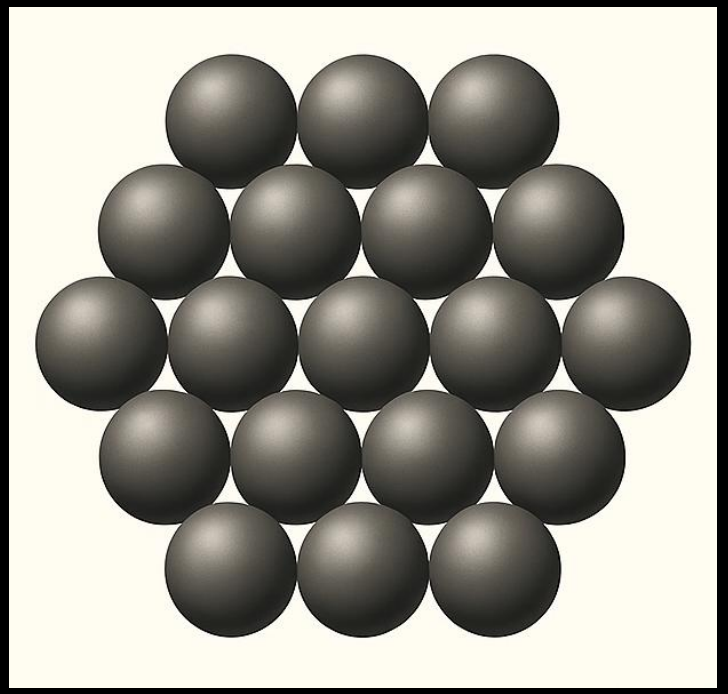
Ionic bond



Metallic bond



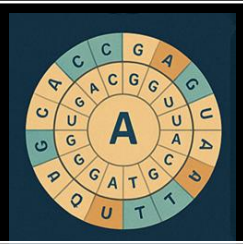
Uon Theory



Magnetic Bond

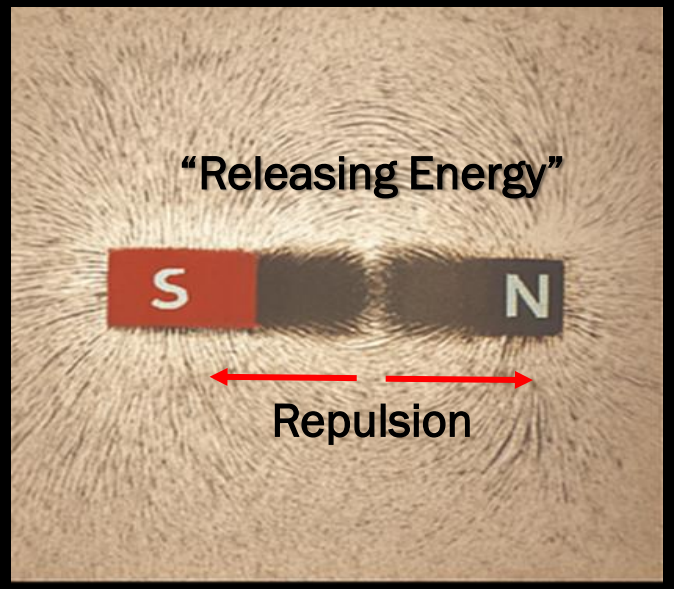
All Bonding Is Magnetic — Magnetically Structured Dipoles Form Molecular Bonds

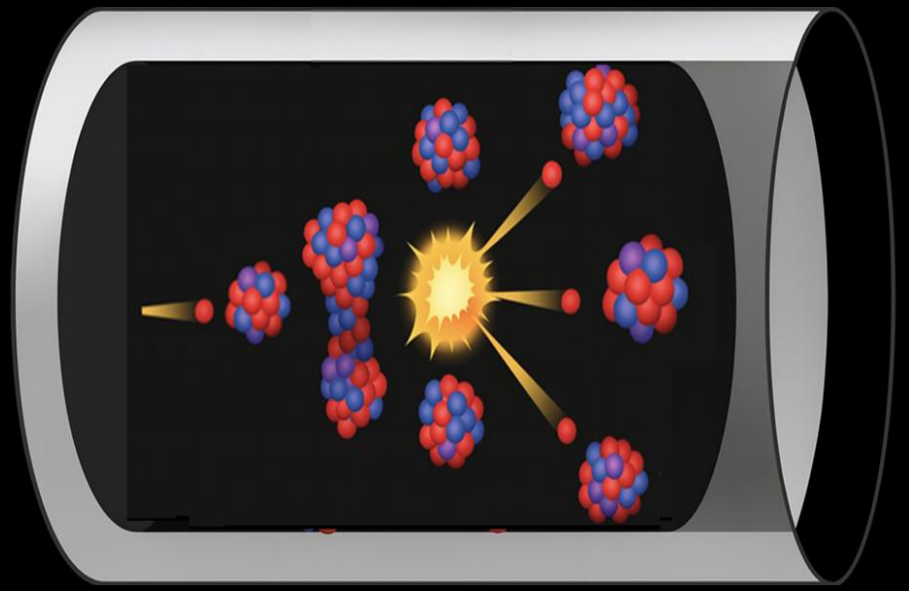
Biological Force: From Genetic Code to Conscious Awareness

TOPIC	STANDARD VIEW	Uon Theory
ORIGIN OF LIFE 	Prebiotic Chemistry: "Primordial Soup"	From Magnetic Structuring in Water to Living Systems
GENETIC CODE 	Chemical Origin	Binary Magnetic Dipole System (Like Computer Code: 0 and 1)
DNA & RNA 	Molecular Base Pairing	Magnetic Polarity Pairing
CONSCIOUSNESS 	Brain’s Neural Activity	Emergent Magnetic Phenomenon

All Life’s Bonding is Magnetic — Magnetic Structure Shapes All Biology

Where Does Nuclear Reaction Force Come From?





Break a magnet → new opposing poles form → repulsion force

Chain reactions and Containment build heat & pressure

Containment reaches its limit → Explosion unleashed

Nuclear Energy = Unleashed Magnetic Energy of the Atom — not mass converted to energy

Unlocking the Mysteries in Physics

Standard Model of
FUNDAMENTAL PARTICLES AND INTERACTIONS

The Standard Model summarizes the current knowledge in Particle Physics. It is the quantum theory that includes the theory of strong interactions (quantum chromodynamics or QCD) and the unified theory of weak and electromagnetic interactions (electroweak). Gravity is included on this chart because it is one of the fundamental interactions even though not part of the "Standard Model."

FERMIONS

matter constituents
spin = 1/2, 3/2, 5/2, ...

Leptons spin = 1/2

Flavor	Mass GeV/c^2	Electric charge
ν_e electron neutrino	$<1\times10^{-8}$	0
e electron	0.000511	−1
ν_μ muon neutrino	<0.0002	0
μ muon	0.106	−1
ν_τ tau neutrino	<0.02	0
τ tau	1.7771	−1

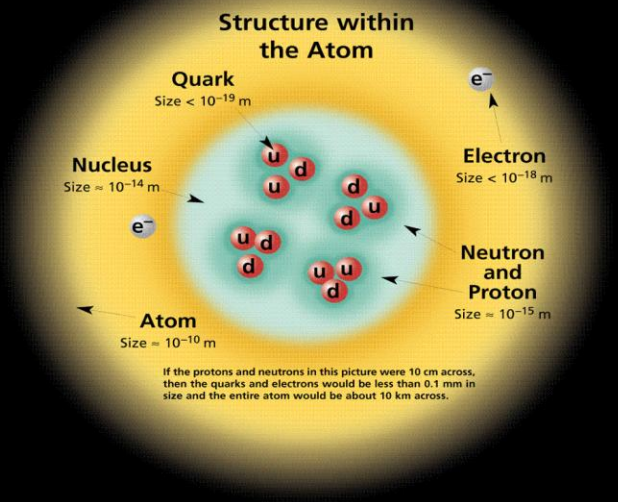
Quarks spin = 1/2

Flavor	Approx. Mass GeV/c^2	Electric charge
u up	0.003	2/3
d down	0.006	−1/3
c charm	1.3	2/3
s strange	0.1	−1/3
t top	175	2/3
b bottom	4.3	−1/3

Spin is the intrinsic angular momentum of particles. Spin is given in units of ħ, which is the quantum unit of angular momentum, where $\hbar = h/2\pi = 6.58\times10^{-25}$ GeV s $= 1.05\times10^{-34}$ J s.

Electric charges are given in units of the proton's charge. In SI units the electric charge of the proton is 1.60×10^{-19} coulombs.

The **energy** unit of particle physics is the electronvolt (eV), the energy gained by one electron in crossing a potential difference of one volt. **Masses** are given in GeV/c^2 (remember $E = mc^2$), where 1 GeV = 10^9 eV = 1.60×10^{-10} joule. The mass of the proton is 0.938 GeV/c^2 = 1.67×10^{-27} kg.



BOSONS

force carriers
spin = 0, 1, 2, ...

Unified Electroweak spin = 1

Name	Mass GeV/c^2	Electric charge
γ photon	0	0
W^-	80.4	−1
W^+	80.4	+1
Z^0	91.187	0

Strong (color) spin = 1

Name	Mass GeV/c^2	Electric charge
g gluon	0	0

Color Charge

Each quark carries one of three types of "strong charge," also called "color charge." These charges have nothing to do with the colors of visible light. There are eight possible types of color charge for gluons. Just as electrically-charged particles interact by exchanging photons, in strong interactions color-charged particles interact by exchanging gluons. Leptons, photons, and ***W*** and ***Z*** bosons have no strong interactions and hence no color charge.

Quarks Confined in Mesons and Baryons

One cannot isolate quarks and gluons; they are confined in color-neutral particles called **hadrons**. This confinement (binding) results from multiple exchanges of gluons among the color-charged constituents. As color-charged particles (quarks and gluons) move apart, the energy in the color-force field between them increases. This energy eventually is converted into additional quark-antiquark pairs (see figure below). The quarks and antiquarks then combine into hadrons; these are the particles seen to emerge. Two types of hadrons have been observed in nature: **mesons** $q\bar{q}$ and **baryons** qqq.

Residual Strong Interaction

The strong binding of color-neutral protons and neutrons to form nuclei is due to residual strong interactions between their color-charged constituents. It is similar to the residual electrical interaction that binds electrically neutral atoms to form molecules. It can also be viewed as the exchange of mesons between the hadrons.

PROPERTIES OF THE INTERACTIONS

Property \ Interaction	Gravitational	Weak (Electroweak)	Electromagnetic (Electroweak)	Strong: Fundamental	Strong: Residual
Acts on:	Mass – Energy	Flavor	Electric Charge	Color Charge	See Residual Strong Interaction Note
Particles experiencing:	All	Quarks, Leptons	Electrically charged	Quarks, Gluons	Hadrons
Particles mediating:	Graviton (not yet observed)	W^+ W^- Z^0	γ	Gluons	Mesons
Strength relative to electromag for two u quarks at: 10^{-18} m	10^{-41}	0.8	1	25	Not applicable to quarks
Strength relative to electromag for two u quarks at: 3×10^{-17} m	10^{-41}	10^{-4}	1	60	
for two protons in nucleus	10^{-36}	10^{-7}	1	Not applicable to hadrons	20

Baryons qqq and Antibaryons $\bar{q}\bar{q}\bar{q}$
Baryons are fermionic hadrons.
There are about 120 types of baryons.

Symbol	Name	Quark content	Electric charge	Mass GeV/c^2	Spin
p	proton	uud	1	0.938	1/2
$\bar{p}$	anti-proton	$\bar{u}\bar{u}\bar{d}$	−1	0.938	1/2
n	neutron	udd	0	0.940	1/2
Λ	lambda	uds	0	1.116	1/2
Ω^-	omega	sss	−1	1.672	3/2

Mesons $q\bar{q}$
Mesons are bosonic hadrons.
There are about 140 types of mesons.

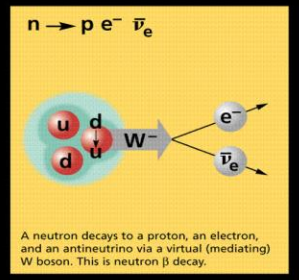
Symbol	Name	Quark content	Electric charge	Mass GeV/c^2	Spin
π^+	pion	$u\bar{d}$	+1	0.140	0
K^-	kaon	$s\bar{u}$	−1	0.494	0
ρ^+	rho	$u\bar{d}$	+1	0.770	1
B^0	B-zero	$d\bar{b}$	0	5.279	0
η_c	eta-c	$c\bar{c}$	0	2.980	0

Matter and Antimatter

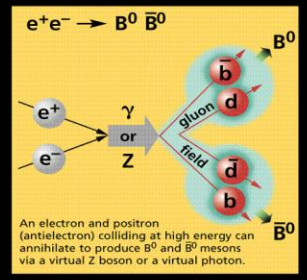
For every particle type there is a corresponding antiparticle type, denoted by a bar over the particle symbol (unless + or − charge is shown). Particle and antiparticle have identical mass and spin but opposite charges. Some electrically neutral bosons (e.g., Z^0, γ, and $\eta_c = c\bar{c}$, but not $K^0 = d\bar{s}$) are their own antiparticles.

Figures

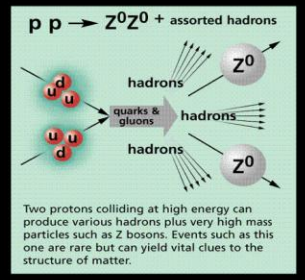
These diagrams are an artist's conception of physical processes. They are ***not*** exact and have ***no*** meaningful scale. Green shaded areas represent the cloud of gluons or the gluon field, and red lines the quark paths.



A neutron decays to a proton, an electron, and an antineutrino via a virtual (mediating) W boson. This is neutron β decay.



An electron and positron (antielectron) colliding at high energy can annihilate to produce B^0 and $\bar{B}^0$ mesons via a virtual Z boson or a virtual photon.



Two protons colliding at high energy can produce various hadrons plus very high mass particles such as Z bosons. Events such as this one are rare but can yield vital clues to the structure of matter.

The Particle Adventure

Visit the award-winning web feature *The Particle Adventure* at **http://ParticleAdventure.org**

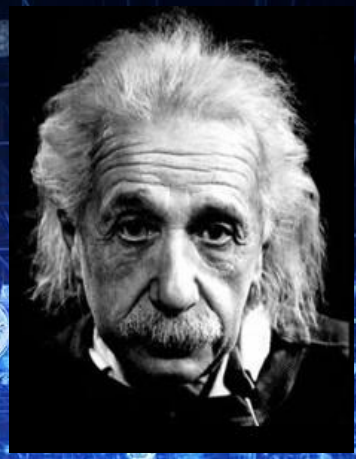
This chart has been made possible by the generous support of:
U.S. Department of Energy
U.S. National Science Foundation
Lawrence Berkeley National Laboratory
Stanford Linear Accelerator Center
American Physical Society, Division of Particles and Fields
BURLE INDUSTRIES, INC.

QM built on two false assumptions — monocharged particles, orbital atoms — is fatally flawed!

Relativity Theories

FLAWED

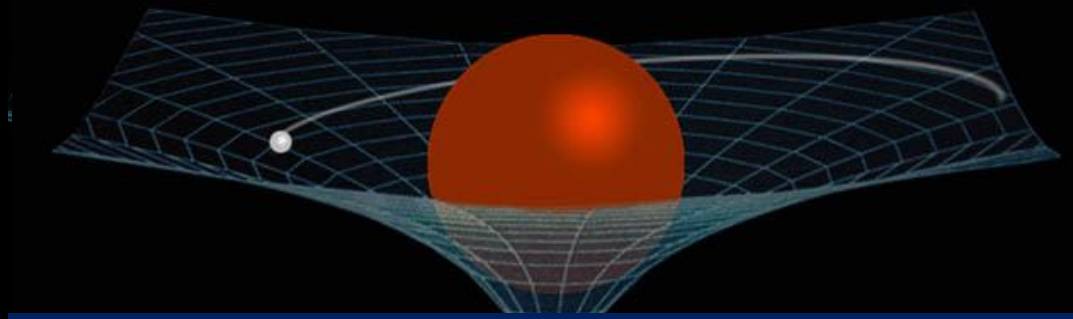
FLAWED



$$E = \frac{m c^2}{\sqrt{1-(v^2/c^2)}}$$

THE FASTER YOU MOVE,
THE HEAVIER YOU GET.

$$R_{\mu\nu} - \frac{1}{2} g_{\mu\nu} R + g_{\mu\nu} \Lambda = \frac{8\pi G}{c^4} T_{\mu\nu}$$



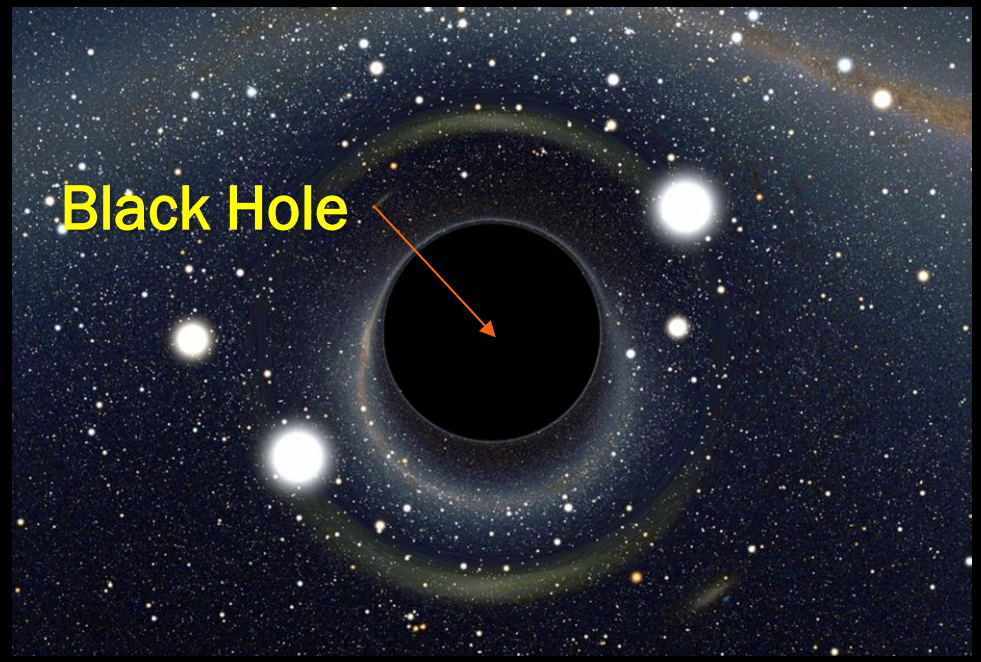
The Fabric of Space-Time

"Matter tells space how to curve,
and space tells matter how to move."

Gravity = Magnetic Force ⟶ Spacetime Geometry Unnecessary

The Black Hole Illusion — A Case of Mistaken Identity

Conventional View



- Gravity governs galaxies
- Central mass = “black hole”
- Used to justify fast orbital motion near center
- Black hole traps light

Uon Theory View

- Magnetic forces dominate
- Void created by centrifugal force
- Dark center = empty, not trapped
- No black hole — magnetic interactions suffice

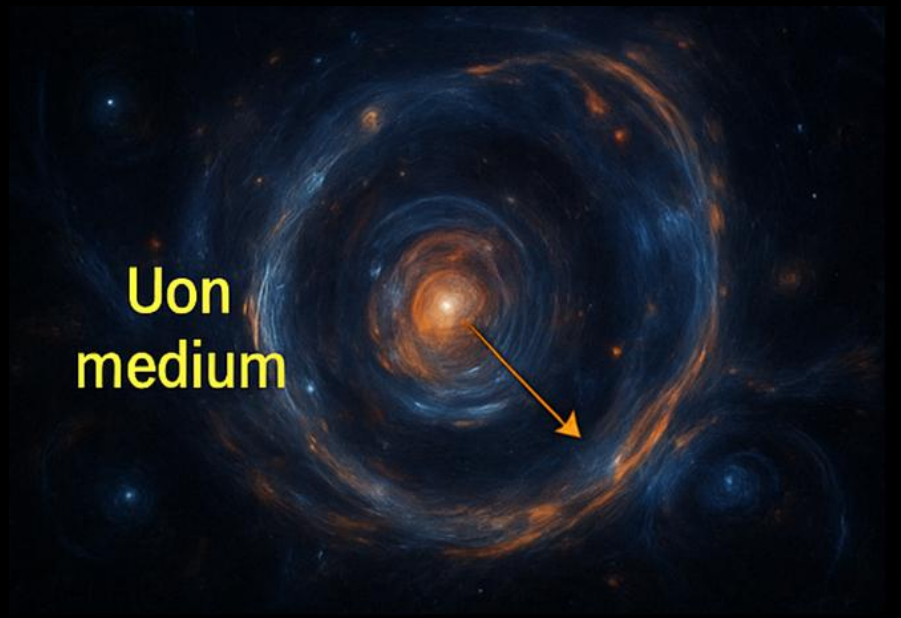
What We Call a ‘Black Hole’ Is Just a Magnetic Void — Not a Mass Trap

The Dark Matter Myth — A Patch for a Flawed Model

Conventional View

- Gravity governs galactic dynamics
- Requires invisible matter to explain rotation
- Dark matter = mass without light
- Explains orbital speeds; no effect on solar system

Uon Theory View

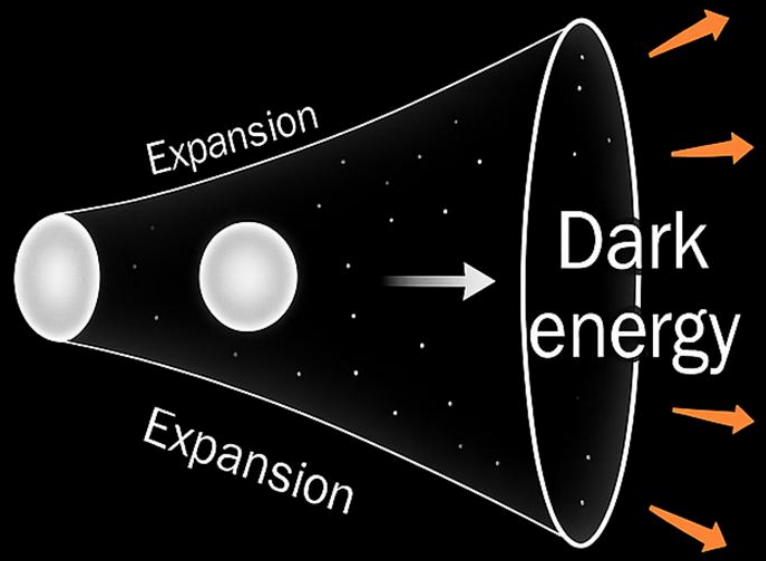


- Rotation curves arise from magnetic effects
- No invisible mass — only structured fields
- Magnetism, not mass, drives motion
- Explains galactic speeds; solar system unaffected

Dark Matter Doesn't Exist — Just a Missing Medium and Misunderstood Magnetism

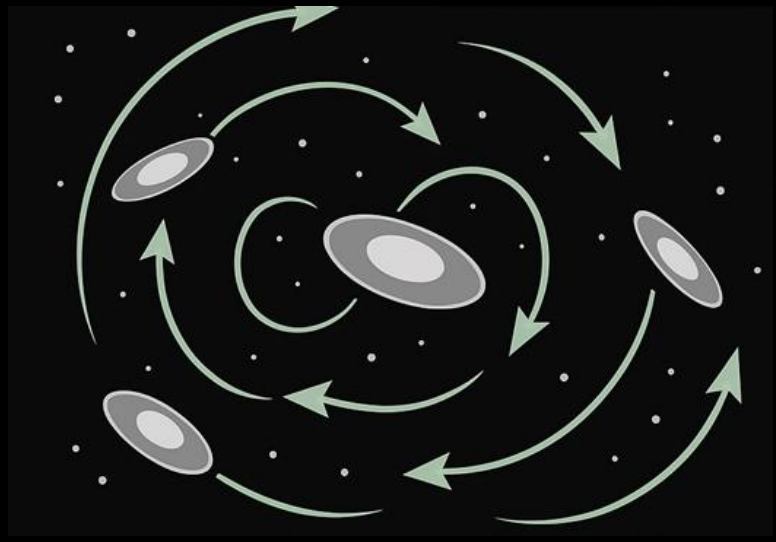
The Dark Energy Illusion — A Misreading of Motion

Standard View



- Redshift interpreted as space expansion
- Dark energy postulated to explain acceleration
- Implies repulsive force with no physical basis
- Space itself expanding—not just galaxy motion
- Fails to explain black hole alignment across cosmic scales

Uon Theory View

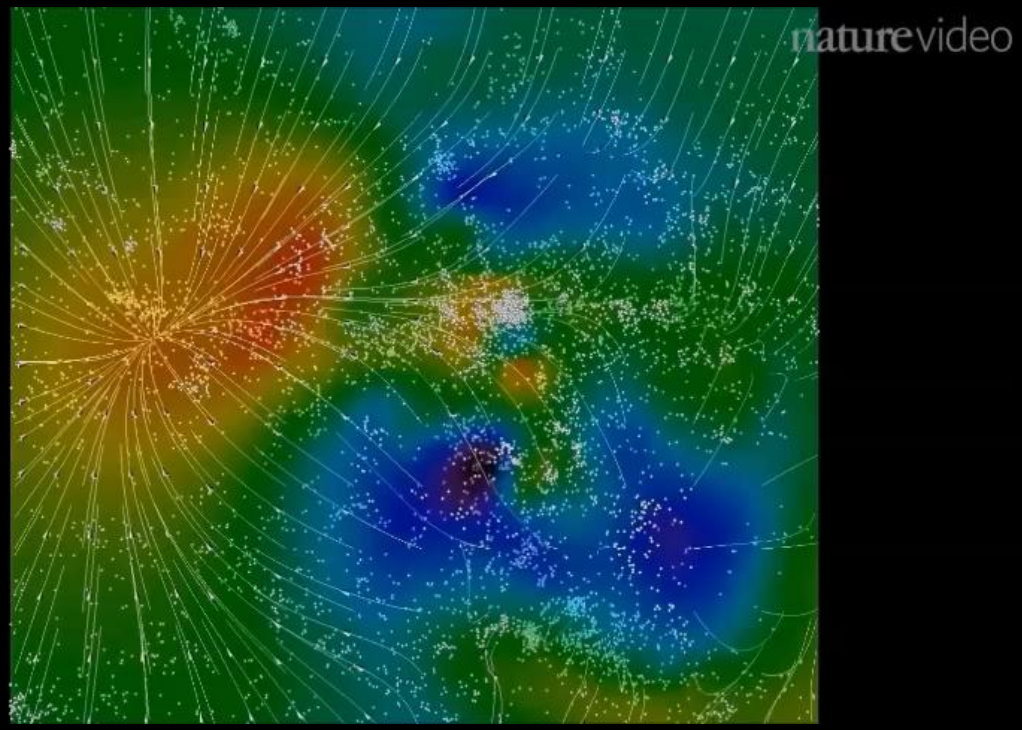


- Galaxies move — space remains static
- Redshift arises from magnetic repulsion, not cosmic inflation
- Galaxies diverge and converge in cyclical motion
- Space is magnetically polarized, guiding trajectories
- Evidence: Black hole alignments & the Great Attractor

The Universe Is Not Expanding — Redshift Reflects Structured Motion Driven by Magnetic Repulsion

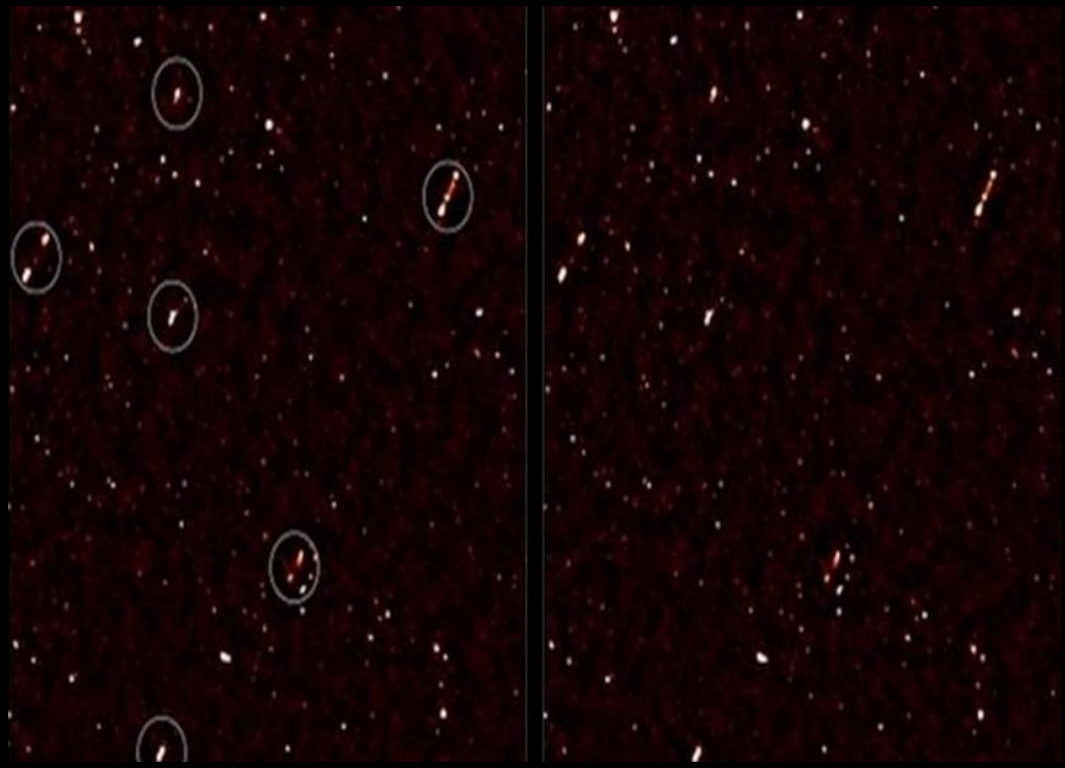
Evidence Against Expansion

Laniakea Supercluster (Nature, 2014)



The Great Attracter(0.29)

Royal Astronomical Society (2016)

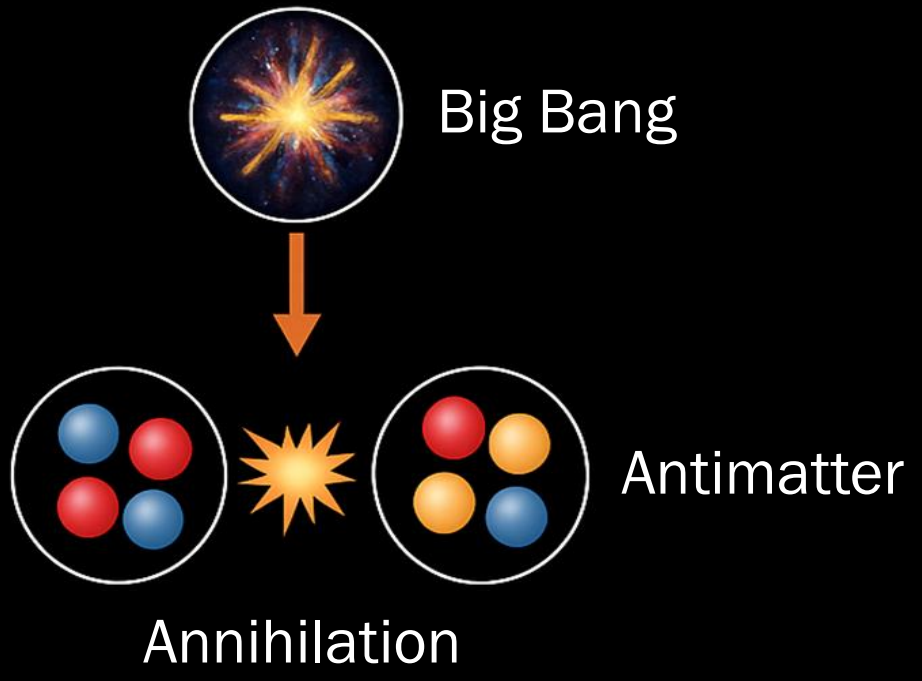


Supermassive black holes observed with aligned spin axes over billions of light-years

Space isn’t expanding—it’s polarized and structured by magnetic fields

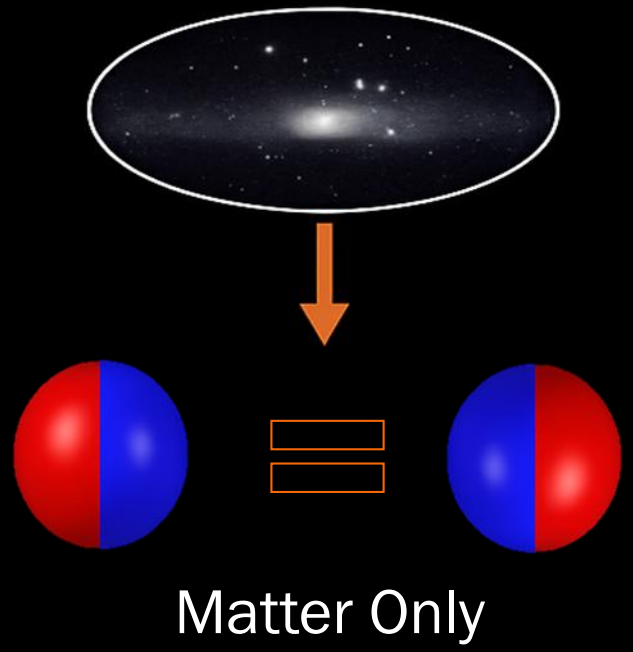
The Antimatter Paradox — A Mathematical Artifact, Not a Reality

Standard View



- Matter and Antimatter: **Same mass** and **Opposite Charge**
- Equal amounts created at Big Bang
- Collide and annihilate, leaving matter excess (unexplained)

Uon Theory View



- Antimatter is just reversed polarity, not a distinct entity
- No Annihilation — It Violates the Conservation Principle

Antimatter Is a Fiction Created by Misinterpreting Equations

The Uon Theory of Everything

One Foundational Particle

One Fundamental Force

One Magnetic Field

One Foundational Principle

One Unified Universe

Absolute Space

Absolute Time

No Quantum Paradoxes

No Extra Dimensions

No Multiverse Needed


THANK
YOU