

Absolute & Relative Measurement leads to no Wave Particle Duality & Gives Orbital Motion

ABSTRACT

#1 Two types of measurement:- Absolute [mass; charge; temperature] & Relative [time; length]

#2 Energy & angular momentum reclassified as absolute values!

#3 All matter must have angular momentum.

#4 The universe, itself, must be “spinning”!

#5 There is a “mass form side” and a “wave form side” to the Schroedinger equation.

#6 These swaps between the “mass form” and the “wave form” are at a frequency between a photon’s frequency & Plank’s frequency!

#7 For the photon or neutrons, when it is in the “mass form” it is in a fixed, “stationary position”!

#8 For the photon or neutrons, when it is in the “wave form” it is moving from its previous mass “stationary position” to its “next mass stationary position” at the speed of light!

#9 The difference in “apparent velocity” between a photon and a mass, is that:-

{A} a photon spends very little time in the mass “stationary position” and most of its time in the moving at c “wave form”!

{B} a mass spends very little time in the moving at c “wave form” velocity and most of its time in the “stationary mass position”! The relative ratio of time spent in the moving at c “wave form” for the mass, will determine the “apparent velocity” of the mass relative to its surroundings!

#10 The “moving at c wave form” has a moving electric field.

#11 The “stationary position” mass has a rotating (around its direction of travel) magnetic field.

#12 The rotating magnetic field creates an electric field.

#13 The moving electric field creates a rotating magnetic field.

#14 The “swapping” of “previous mass position” & its “next mass position” is what moves the mass / planet / sun around in its orbit; “pushing it along in its “ballistic orbital trajectory””, not gravity!

#15 This means that the “previous mass position” “needs to know” where the “next mass position” is going to be & when it needs to be there. This means that the “future” is predetermined by the “past”!

#16 Predestination would seem to be built into the universe! (but see the end of this!)

INTRODUCTION

There are a few changes from the “standard viewpoint” in this. They are “strung together in a sequence” here. The sequence here does not mean that any one of these “parts of the sequence” cannot be fully viable on its own!

AN UNEXPECTED REVISION OF SOME ASPECTS OF PHYSICS, FROM INSIGHTS INTO THE TYPES OF MEASUREMENT & THE CONSEQUENCES OF THE CHANGED VIEWPOINT!

There are 2 types of measurement: Absolute & Relative

Absolute:- is “single measurement” for “a measurement” e. g. mass; charge; temperature

Relative:- needs a stop & start for “a measurement” e. g. time; length

It is assumed that these differences are inherently different at the fundamental level of the universe!

It is further assumed that the elementary particles have all of their properties as absolute values.

This would mean reclassifying energy & angular momentum as absolute values!

angular momentum would be absolute.

Linear momentum would be relative.

It is further assumed that the matter in the universe is in the “standard absolute measurement”

mode. This would mean that all matter must have angular momentum, and must, therefore be in a

“ballistic orbital trajectory”, moving relative to something. The universe, itself, must be “spinning”!

If we look at Schroedinger's equation, in relation to “absolute values we get a surprise:

The angular momentum of a photon is inversely proportional to its wavelength , or proportional to its frequency.

Schroedinger's equation is an “absolute equation”, with “absolute values” on both sides, There is a “mass side” and a “wave side” to this equation. They are “swappable”; interchangeable. For photons, neutrons & other fundamental (mass-energy) particles, it is envisioned that these swaps between the “mass form” and the “wave form” are at a frequency between a photon’s frequency & Plank’s frequency!

(I shall use a neutron as an example of any fundamental particle of mass.)

For the photon or neutrons, when it is in the “mass form” it is in a fixed, “stationary position”!

For the photon or neutrons, when it is in the “wave form” it is moving from its previous mass “stationary position” to its “next mass stationary position” at the speed of light!

The photon moves (usually) in a straight line through the universe.

The neutrons moves in a “ballistic orbital trajectory”, that is modified by the position and gravitational strength of every particle of mass in the universe, As it travels through the universe!

The difference in “apparent velocity” between a photon and a mass, is that:-

a photon spends very little time in the mass “stationary position” and most of its time in the moving at c “wave form”!

a mass spends very little time in the moving at c “wave form” velocity and most of its time in the “stationary mass position”! The relative ratio of time spent in the moving at c “wave form” for the mass, will determine the “apparent velocity” of the mass relative to its surroundings!

When it comes to electro-magnetic radiation, there is an added factor to consider.

The “moving at c wave form” has a moving electric field.

The “stationary position” mass has a rotating (around its direction of travel) magnetic field.

The rotating magnetic field creates an electric field.

The moving electric field creates a rotating magnetic field.

The “stationary position” mass is like a cannon that fires a cannonball.

The moving electric field is like the cannonball, with a long spring attached back to the cannon.

When the cannonball lands, it pulls the cannon towards it, reloads the cannon and then refires! This cycle keeps repeating, whilst a photon or neutron is moving.

The magnetic field moves the electric field and the electric field moves the magnetic field. The changing fields & their interaction is what “moves along” the electromagnetic radiation. The electric field “pushes itself away from the stationary magnetic field”. This is its transmission medium; its self-contained “ether”.

The “stationary position” mass has a rotating magnetic field. This “magnetic field” could be much more “associated” with the “gravity field” than the “electric field”!

The “wave form” velocity for photons & masses, between the two “stationary mass positions”, would be the speed of light.

Gravity holds planets in their orbits around their suns & suns around their galaxies, but as all masses have angular momentum around their more massive central body, the orbiting mass’s elementary particles of mass are all swapping from “wave form”; to stationary mass positions”; to “wave form”; to “stationary mass positions” . . and so on. Gravity keeps the planets / suns “at the correct distance”!

The sequence is, in effect, “I am here as a mass. I, next, need to get to the “next stationary mass position” there, at a certain time! I change into the “wave form” to move between the two mass positions. There is, in effect, ongoing “teleportation”, of each individual elementary mass particle, between the “previous mass position” & its “next mass position”. This process is what moves the mass / planet / sun around in its orbit; “pushing it along in its “ballistic orbital trajectory” ”, not gravity! There is, an inertia effect.

This means that the “previous mass position” “needs to know” where the “next mass position” is going to be & when it needs to be there. This means that the “future” is predetermined by the “past”! Albert Einstein might have described this as “Spooky, at a distance in time, interaction!” Mass & photons needs the “past-future interface & Mass-wave interface” to exist! This is how the mass & photons move through space & time.

The “needing to know the future position & time” of the “next mass position” would seem to indicate predestination closely tied to inertia!

In the “Schroedinger's cat experiment” the cat is not “alive & dead simultaneously”! There is uncertainty as to when the radioactive particle will decay, from a statistical (not quantum) point of view, but the cat will be either alive or dead. There is no wave-particle duality; no simultaneous mass & wave form in this theory!

When an electron & a positron are created they will have opposite charges & opposite spins & opposite polarisations & move off in opposite directions from the start, as will photons. The “entanglement” is built in from the very start. The spin of one photon will ALWAYS be detected as the opposite of its “entangled pair”, without “Spooky, at a distance, interaction!” that is faster than light!

This is maybe a slight addition to Newton’s laws:-

A mass (or photon in its “mass form”) will follow its “ballistic orbital trajectory” unless there is a change in the force acting on it! e. g. a cannonball in flight or a planet in orbit.

The Absolute measurement does not require an “observer”. A Relative measurement does require an “observer”, but, only, in as much, as they would have to “choose” the start & end point for a “relative measurement”. That same value, before the observer measures it is just “an (unobserved) unmeasured value”!!

[For the Youngs slit measurement, how can any electron travelling through the best “Earth’s vacuum” not encounter $>10^{10}$ other electron orbitals in its path!? & the same for photons interacting with electron orbitals. Interference of 1 electron / photon should be unavoidable!] Predestination would seem to be built into the universe in this theory, but it could just be a “wave form”; to stationary mass positions”; to “wave form” “one-step”, emergent property!

Another anti-predestination viewpoint is that no-one would say that predestination or a god is necessary for the chaotic nature of water to be turned into the highly structured nature of ice!