WAVES

All Types

Other types of waves

Sound
Magnetic
Tsunami
Earthquake

How do all of these waves collapse when they encounter a barrier?

Other types of waves

Sound

Magnetic

Tsunami

Earthquake

How do all of these waves collapse when they encounter a barrier?

Along their entire front or around the area of a protruding obstacle.

There is one other type of wave

Quantum

How does it collapse?

There is one other type of wave

Quantum

How does it collapse?

To a point

Why is this the only wave that nature chooses to collapse to a point and not along its entire length or just at the location of a barrier?

Well! Nobody knows. Yes, we don’t know we only see that nature does it that way. We see it with our own eyes, When we send a particle through two slits it immediately appears on our screens.

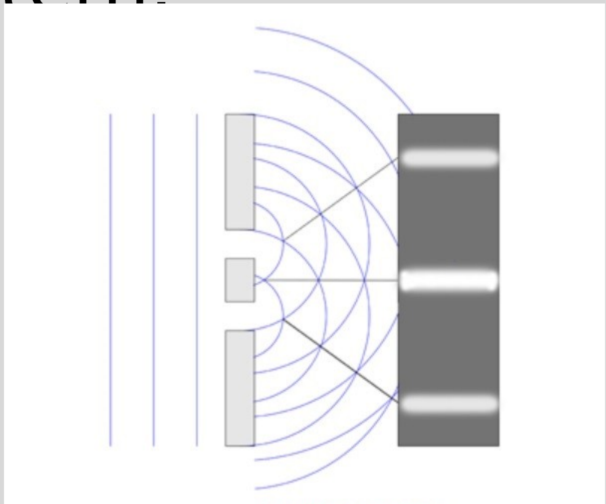
Or does it?

Einstein had a problem with this idea.

If allowed, this expansion of a quantum wave would eventually reach a dimension, where to collapse instantaneously, it would have to travel, one end to the middle, faster than the speed of light.

However, since the experimental distances were relatively small, and the speed of light so fast, this objection was generally ignored.

Fine, no problem, let’s press on, So this particle lands at some apparent random spot on our screen. However, when we send thousands of these particles through our double slit, one at a time they are not random they form an interference pattern.



Courtesy of plus.maths.org

How does each particle know it should land in one of the cluster areas of particles and not between clusters of our interference pattern?

Well, to do so would require each particle to have more computing intelligence than we possess.

So, is there a way to rationally understand what’s happening, or only appears to be happening?

Can there be a way Nature does not have to change its whole Modus Operandum for a quantum wave to exist?
And the answer is a resounding –

YES. Nature does not have to change.

Therefore, let us threat QM waves just like all other waves and see what happens.

The apparent weirdness of QM comes from an atoms ability to have its electrons store varying amounts of energy. Each orbital of an electron can contain up to a quanta amount of energy or less. When that quanta is reached, the electron will jump to the next orbital. Or if depleted the electron will drop to a lower level. It will stay in that orbital until it can gather, in one infusion or many, the quanta required to jump to the next level or completely out of the atom.

To quote Einstein-

“The simplest possibility is that a light quantum transfers its entire energy to a single electron; we will assume this can occur. **However, we will not exclude the possibility that the electrons absorb only a part of the energy of the light quanta**”.*

* *A. Einstein, “On a heuristic point of view concerning the production and transformation of light Annalen der Physik 17; 1905. p132-148.,”*

Yes. Einstein was aware that, electrons could store varying amounts of energy. When an electron receives or loses a quanta of energy or matter for its current orbital it jumps to a higher or drops to a lower orbital. But when it received less than a quanta, nothing happens that we can detect, till enough small bits are added to the electron to total a quanta of matter or energy and manifest itself as a quantum jump.

Therefore-

If in the path of the interfered wave, that exited our two slits, there was just one atom on our screen, with an electron on the brink of jumping to a higher orbital, it would, when it received a small amount of energy or matter from this extended wave, jump to the next orbital. It would emit a photon indicating to us that a particle had arrived.

This is not the particle we sent through the double slit. It is a completely new particle with just a smidgen of the original particle in its make up.

Electrons within an atom or being channeled or controlled are very compact waves and appear to be bullet like particles. When free their wave nature presents itself more fully and they behave like all other waves.

As waves, electrons can be split. Atoms and large molecules like “Buckminster Fullerenes” can also be split. This is not the same type of split as “splitting the atom” where the forces within the atom are thorn apart. The forces here are evenly split among the constituent parts. Allowing stability

These constituent parts we cannot observe but are known as virtual particles as they pop in and out of existence with the addition or subtraction of matter or energy.

Fermion particles having decayed from their normal detectable state, become virtual fermion particles, though invisible and more numerous than solid matter particles, they continue to have mass, though reduced. This mass still reacts to Gravity and is an excellent candidate for dark matter. Instead of hunting for WIMPs (Weakly Interacting Massive Particles) They should be accepting VIVPs (Voluminous Interacting Virtual Particles) as their suspect.

In Conclusion:

- Quantum Waves behave like all other waves. They can be added to and subtracted from other waves.
- They can be split longitudinally as they encounter atoms or molecules.
- And as demonstrated in chapter II of my Paper “A Dublin Interpretation of Quantum Mechanics” Quantum Waves can also be split laterally. Providing a logical explanation for many weird spin experiments.
- Splits of Bosons, Fermions, and Molecules naturally are not the same as “The Splitting of the Atom” we are accustomed to in Nuclear Reactors and Bombs. This new split divides the forces evenly and maintains a balance of forces within each split. As opposed to shredding or ripping apart an atom.
- We cannot detect Quantum Waves other than to convert portions of matter to matter with matter or energy. Therefore, this hidden matter in wave form and as virtual particles is an excellent candidate for Dark Matter. Don’t forget 6VP’s or VIVP’s.

Link to my paper

Quantum Mechanics

A Dublin Interpretation

With a Solution to the Measurement Problem

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