

Re: Photons shapeshifting to wave prior to measurement

Source: <http://sci.tech-archive.net/Archive/sci.physics/2005-03/14910.html>

From: RP (*no_mail_no_spam_at_yahoo.com*)

Date: 03/30/05

Date: Tue, 29 Mar 2005 18:01:47 -0600

Jack wrote:

> *RP wrote:*

>

>>*Jack wrote:*

>>

>>><http://www.mat.ufmg.br/~tcunha/2003-07WalbornF.pdf>

>>>

>>>*refer to the figure of page 341 that may debunk your model.*

>>>

>>

>>*Ok, thanks, I've looked it over. It is explained exactly as I*

>>*explained the three polarizer paradox.*

>>

>>*The left and right circularly polarized waves will not interfere*

>>*constructively and destructively, they are crossed at 90deg wrt each*

>>*other. Suppose you could orient a series of water waves along a*

>>*vertical surface, how would these interfere with the horizontal*

>

> *waves?*

>

>>*When the horizontal polarizer is placed between the plate and screen*

>>*the pattern reappears. Duh, you've flipped the polarization of the*

>>*wavelets back into alignment. No mystery here. Anti-fringes are due*

>

> *to*

>

>>*a 180 flipping of polarization of one wavelet wrt the other.*

>>

>>*It's amazing to me that such a simple problem can be so oversung.*

>>

>>*Richard Perry*

>

>

>

sci.physics: Re: Photons shapeshifting to wave prior to measurement

> *You are so persistent. Aren't you. Pls. give your url where you
> describe everything in details. I'd like to see it in depth.*

Me too. It doesn't exist...yet.

Let me just provide the logical arguments here.

Beginning with classical electromagnetism in an special relativistic context, there is a fundamental law called **superposition**. If you believe that superposition of fields applies everywhere all the time, then you prohibit photons—as—discrete—particles. There is no way to generate such a being in the classical context. You can however generate em waves, in fact these are the natural result of special relativistic retarded potentials. These **waves** expand spherically from the point of origin, in any frame. Moreover they are completely and entirely deterministic.

What this means is that in any microscopic volume of space occupied by a charge quanta, there exists the field of all other charges in any given instant, the magnitude and polarization of each given by the inverse square law and by special relativistic delays. The net force on a quanta in any given proper instant is thus the vector sum of the forces of all of these other quanta. This is absolutely required in the contexts of the superposition principle and special relativity. Any other view is contradictory to either one or both of these premises.

Now the failure to consider the infinite detail of any one interaction isn't my fault, because this is what I in fact do, and when I do so I get the fact that these mysterious behaviors are quite ordinary, and fully explainable in terms of classical em.

My description of the polarizer mechanism stems directly from the fact that the only difference between light and radio is the frequencies involved, and thus one must be able to simulate all behaviors of light with radio waves. In turn, the easiest way to rotate the polarization angle of a radio wave is to absorb and emit its energy by a line of passive dipoles, each of which is tilted wrt its neighbors in a helical sequence. This must therefore be the mechanism that acts on the light waves to shift their polarization angles, i.e. to torque the polarization of the propagating em field. The field isn't actually torqued though, it is simply superposed over by the secondary radiation generated. This is all just classical em wave mechanics, and the fact that it explains every single interference effect without resorting to metaphysical speculation, and IMHO outright stupidity, should be taken as proof that photon—particles exist? Hah. Transitions exist, and the waves associated with them exist, but they expand spherically; any directionality that is **observed** is due to the fact that there are a hell of a lot of other charges around that are reacting to this wave and emitting their own disturbances in response to it. It's a chaotic mess at that level, but the order is preserved not because of quantum erasers or other such bullshit, it is because chaos doesn't imply randomness. Recall that our premise was a

completely deterministic sequence of events. It is only random when you're too lazy to trace the source of each component of the local field. Possibility is literally a measure of ignorance of the underlying details.

Richard Perry

- >
- > *You know how much to setup a double slit expe. Maybe let's*
- > *have one in our room where we can test many parameters ourselves.*
- > *I wonder if any store is selling a double slit kit.*
- >
- > *For others. This double slit thing may not mean much. But for*
- > *me. Unraveling the mystery of the double slit means a whole lot.*
- > *My main interests are Biochemistry and Quantum Vacuum Dynamics*
- > *and understanding the double slit can tell me what of QM to use*
- > *in comprehending them and other exotic phenomena many never*
- > *imagine existed.*
- >
- > *Jack*
- >