

# Re: Schrodinger Aether vs Michelson–Morley

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  - *Date:* Tue, 13 Dec 2005 15:14:54 +0100
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<manofsan@xxxxxxxx> wrote in message  
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- > Saying that you can have spooky action at a distance but that it just
- > can't communicate, is like claiming that we can time travel to the
- > distant past but just can't do anything to alter the future. In other
- > words, it doesn't sound plausible or rational.
- >
- > One can reasonably conclude that such speculations are based on
- > abstract book–keeping terms that have no tangible meaning,
- > significance, or use, and whose existence are thus inherently
- > misleading. Being "correlated to randomness" is a meaningless phrase
- > which has no practical weight at all. "Action that does not
- > communicate" is also a meaningless idea. These notions are arising from
- > the flawed premise of quantum indeterminacy. The contrived solution of
- > "probability function" then forces the further contrived notion of
- > "spooky action at a distance" which according to the calcite paper can
- > then force the notion of "non–locality", etc, etc, error building upon
- > error, ad infinitum, ad nauseum.
- >
- > Quantum indeterminacy of the photon should therefore not be
- > real/absolute but only \*apparent\*. The wave–particle duality idea
- > should be scrapped, and we should simply see the discrete quantum
- > particle as only having wave behavior imparted to it by the much much
- > finer sub–planck scale of the quantum vacuum.
- >
- > We need to then visualize things more easily using analogies like
- > Brownian Motion. Like the speck of dust jiggling in the water drop
- > because the unseen water molecules are battering it, we need to see the
- > photons and other small particles in the same way. Their apparent
- > indeterminacy is only due to the constant perturbation from the
- > surrounding medium.
- >
- > I was reading up on Michelson–Morley, trying to see why its conclusions
- > totally oppose and contradict what I've just stated above. I wonder if
- > there may be flaws in the Michelson–Morley model which are alluded to
- > in my title phrase "Schrodinger's Aether"
- >
- > Schrodinger's Cat fans like to point out that so–called quantum

## Re: Schrodinger Aether vs Michelson–Morley

- > indeterminacy doesn't scale up to macroscopic objects like cats, etc.
- > Well, consider the fact that Michelson's idea for his aether–wind
- > experiment is based on the notion of swimmers crossing a stream.
- >
- > <http://galileoandstein.physics.virginia.edu/lectures/michelson.html>
- >
- > So, conversely to the Schrodinger's Cat example, I'm forced to wonder
- > if the Michelson–Morley premise of macroscopic swimmers in a stream can
- > really scale down to the quantum level of the photon. Is this premise
- > of the Michelson Morley aether wind experiment fundamentally flawed?

It's based on Maxwell's unproven assumption that wave velocity is completely (down to second order) independent of the velocity of the source. AFAIK, this was never obtained by derivation from the wave equation. Voigt messed up when he tried to do it, we didn't find a better attempt in literature. Now I have the Master thesis of a student who tried to solve it but he did not obtain it and we haven't found the error — if there is one (he didn't get a prize because we're not sure). Also some recent experiments with sound put that premise in doubt. Thus, it's possibly fundamentally flawed, except if someone has very convincing data that really demonstrates it beyond doubt.

Harald

- > Consider that a photon in space is going to suffer perturbation effects
- > from the quantum vacuum, analogous to the way a speck of dust in water
- > is going to jiggle from Brownian motion. Michelson–Morley is based on
- > the analogy of macro–sized swimmers in the stream, which doesn't take
- > into account any apparent effects from Brownian motion like the speck
- > of dust would experience in water, or that the photon would experience
- > in aether. If the Michelson–Morley premise then doesn't take into
- > account this "Brownian motion" effect on the photons actually used in
- > the experiment for measurement purposes, then there's a possibility of
- > it yielding erroneous results and conclusions because of this.
- >
- > How can one then re–phrase the Michelson–Morley experimental parameters
- > to take into account this "Schrodinger's Aether" — ie. the
- > quantum–level perturbational effects by the dynamic vacuum on the
- > Michelson–Morley photons which is not accounted for in the macroscopic
- > swimmers–in–a–stream model?
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• **References:**

◆ **Schrodinger Aether vs Michelson–Morley**

◇ From: manofsan

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