

Re: A Look at Quantum "Spookiness"

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 - *Date:* Wed, 23 Nov 2005 01:27:33 +0200
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"Tleb" <tleb@xxxxxxx> kirjoitti viestissä

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> A Look at Quantum "Spookiness"

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- > The results of quantum theory were described as "spooky" by
- > Drs. Einstein, Podolsky, and Rosen because quantum theory seemed to reject
- > "objective reality". They believed that all observed effects must be
- > produced by
- > "local" causality. Their conclusion resulted from their firm belief that
- > information could not travel faster than the velocity of light. Indeed, if
- > this
- > were the case, quantum theory would indeed be "spooky". Quantum theory
- > required,
- > for example, that "paired photons" maintain polarizations which were
- > opposite in
- > direction . If the polarization angle of one of the "paired photons" were
- > changed, the polarization angle of the other photon of the pair must
- > instantaneously change to match. ("Paired photons" are produced by the
- > self
- > annihilation of an artificial atom composed of an electron and a positron.
- > They
- > are polarized in opposite directions and are emitted in opposite
- > directions.
- > Their polarization angle is, of course, random with respect to the
- > external
- > world.)
- >
- > Since the "paired photons" are emitted in opposite directions,
- > they rapidly become separated in space. The required instantaneous
- > coupling
- > of
- > their polarization implies that information must travel at an infinite
- > velocity
- > and, since these personages were firmly committed to the idea that
- > information
- > could not be transmitted faster than the velocity of light, they had to
- > conclude
- > that the process was "spooky" and required the existence of "hidden

Re: A Look at Quantum "Spookiness"

- > variables".
- > (These allegedly "hidden" variables are not necessarily hidden, one of them
- > for
- > example, is the polarization coupling of "paired photons". Since this
- > coupling
- > had been shown to propagate at an "impossible" infinite velocity, it was
- > necessary for orthodox physics to accept the idea of "spookiness". If the
- > effect
- > were accepted without the idea of "spookiness" it, the existence of an
- > absolute
- > velocity reference frame for space (i.e.– the Aether) would have to be
- > accepted.
- > Since this is currently dogmatically unacceptable, a problem remained.
- >
- > An alternative explanation, proposed by the "Copenhagen
- > School" of physicists asserted that there was no objective reality, there
- > was
- > only the reality as seen by the observer. This interpretation led to
- > Schroedinger's Cat Paradox which asserted that a cat in a closed box that
- > would
- > be subject to cyanide poisoning if the decay of a radioactive atom was
- > detected
- > by instruments within the box. It was further asserted that, since the
- decay
- > of
- > the atom and thus the death of the cat, the creature was both dead and
- alive
- > until an external observer opened the box and looked. The reasoning behind
- > this
- > was the idea that an event does not occur until it is observed. This does
- > not
- > seem to be an objectionable idea, per se, but the observation that counts
- in
- > this Paradox is the decay of the radioactive atom, not the observation by
- an
- > external observer. The cat is not both alive and dead prior to his
- > observation,
- > it is one or the other, but not both. The fact that the observer does not
- > know
- > is meaningless. It is only attributed as having meaning as a result of
- > intellectual sloppiness. Schroedinger's Cat Paradox is not a paradox.
- >
- > A different approach to resolving the "spookiness" of Quantum
- > theory is the idea of Parallel Universes. In this interpretation, each
- > particle
- > in the Universe creates an unobservable twin every time it makes a quantum
- > "decision" The result is that each particle creates an unobservable
- > "Parallel
- > Universe" at virtually every instant of time occurring since our Universe
- > began.

Re: A Look at Quantum "Spookiness"

- > When one considers the number of particles in the Universe, the number of
- > ways
- > in which they can interact, and the number of instants of time since the
- > Universe began, the number of Universes which are required under this
- theory
- > is,
- > incredibly, at least 10^{160} . What is equally incredible is that each of
- > these
- > Universes contains the same amount of energy as our own and each of its
- > particles occupies the same space at the same time as do its brothers.
- This
- > interpretation seems to have a large number of believers of high
- reputation.
- > In
- > spite of this, the writer has no qualms about asserting that any physicist
- > who
- > would accept such a concept is in the wrong line of work. I understand
- that
- > Wal-Mart is hiring.
- >
- > When one examines the concept that information cannot
- > propagate faster than the velocity of light one finds that it is based on
- > the
- > fact that information is almost always encoded in the form of energy.
- Since
- > the
- > Lorentz Transformation for energy is $1/\sqrt{1-V^2/C^2}$ (the same as the
- > Lorentz Transformation for Length), it is obvious why information cannot
- > propagate faster than the velocity of light. At the velocity of light, the
- > Lorentz Transformation for Energy becomes infinite. The transformation
- > becomes
- > imaginary! Information encoded in the form of energy certainly cannot
- > propagate
- > faster than the velocity of light. When information is encoded in the form
- > of
- > the polarization angles of "paired photons", however, this limitation does
- > not
- > occur. Changing the polarization angle of a photon does not change its
- > energy.
- > As a result, no energy transfer is involved in changing their polarization
- > angles. If one extracts the Lorentz Transformation for Angle using the
- > conventional Lorentz Transformations, one find that this transformation is
- > unity
- > since angle is equal to a LENGTH along an arc divided by the LENGTH of the
- > radius of that arc. Accordingly, the Lorentz Transformation for Angle
- > becomes
- > $((1-V^2/C^2)/(1-V^2/C^2))^{0.5}$ or unity. One might conclude, therefore,
- that
- > the
- > relativistic processes do not impose a velocity limit on the propagation
- of

Re: A Look at Quantum "Spookiness"

- > the
- > polarization angle of the "paired photons" and it is reasonable to expect
- > that
- > velocity to be infinite. "Spookiness" is not needed.
- >
- > Physicists have also concluded that even if information could
- > be transmitted by the use of "paired photons", that information could not
- > be
- > decoded since the polarization angle of the "paired photons" emitted by
- > their
- > source was completely random. If this limitation could not be overcome,
- > the
- > conclusion would indeed be true, but consider that would happen if a pair
- > of
- > parallel axis polarizers were installed at opposite ends of the photon
- > source.
- > In this case the paired photons which were emitted would not be randomly
- > polarized but would be polarized in parallelism. Communicating over a
- > distance
- > at an infinite velocity would then be perfectly feasible. The most
- > dangerous
- > part of this conclusion is that it would establish the existence of
- > "absolute
- > time" and the existence of the classical Aether and would demolish the
- > hare-brained concept of "space-time".
- >
- > The source material for this posting may be found in
- > <http://einsteinhoax.com/hoax.htm> ("The Einstein Hoax" {1997});
- > <http://einsteinhoax.com/gravity.htm>; ("Gravity" {1987}); and
- > <http://einsteinhoax.com/reacor.htm> ("Corrections to Special Relativity"
- > {1997}). EVERYTHING WHICH WE ACCEPT AS TRUE MUST BE CONSISTENT WITH
- > EVERYTHING ELSE WE HAVE ACCEPTED AS TRUE, IT MUST BE CONSISTENT WITH ALL
- > OBSERVATIONS, AND IT MUST BE MATHEMATICALLY VIABLE. PRESENT TEACHINGS DO
- > NOT
- > ALWAYS MEET THIS REQUIREMENT. THE WORLD IS ENTITLED TO A HIGHER STANDARD
- > OF
- > WORKMANSHIP FROM THOSE IT HAS GRANTED WORLD CLASS STATUS.
- >
- > All of the Newsposts made by this site may be viewed at
- > <http://einsteinhoax.com/postinglog.htm>.
- >
- > Please make any response via E-mail as Newsgroups are not monitored
- > on
- > a regular basis. Objective responses will be treated with the same
- > courtesy
- > as they are presented. To prevent the wastage of time on both of our
- > parts,
- > please do not raise objections that are not related to material that you
- > have read at the Website. This posting is merely a summary.
- >
- > E-mail:– einsteinhoax@xxxxxxx

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- > The material at the Website has been posted continuously for over 5
- > years. In that time THERE HAVE BEEN NO OBJECTIVE REBUTTALS OF ANY OF THE
- > MATERIAL PRESENTED. There have only been hand waving arguments by
- > individuals who have mindlessly accepted the prevailing wisdom without
- > questioning it. If anyone provides a significant rebuttal that cannot be
- > objectively answered, the material at the Website will be withdrawn.
- > Challenges to date have revealed only the responder's inadequacy with one
- > exception for which a correction was provided.
- >

When we have a long board and we turn it's one end upside down, the other end turns at the same moment. Electromagnetic radiation works that way, and there is no message needed from one end to the other. When we talk about light as photons we lose the reality of a light wave.

<http://www.wakkanet.fi/~fields/>

Henry Haapalainen

- *Follow-Ups:*

- ◆ ***Re: A Look at Quantum "Spookiness"***
 - ◇ *From:* PD
- ◆ ***Re: A Look at Quantum "Spookiness"***
 - ◇ *From:* xxein

- Prev by Date: ***Re: "The Source of Gravitational Energy"***
- Next by Date: ***Re: Falling space***
- Previous by thread: ***Re: A Look at Quantum "Spookiness"***
- Next by thread: ***Re: A Look at Quantum "Spookiness"***
- Index(es):
 - ◆ ***Date***
 - ◆ ***Thread***