

Re: The time it takes to emit one photon

Source: <http://sci.tech-archive.net/Archive/sci.physics.research/2005-09/msg00401.html>

- *From:* bz <bz+spr@xxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Fri, 23 Sep 2005 19:56:04 +0000 (UTC)
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"nightlight" <nightlight@xxxxxxxxxxxxxx> wrote in
<news:1127179612.816435.279440@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>:

- > There is no experiment to date which has shown that the
- > probability of "trigger" (which is, after all, a mere convention based
- > on arbitrarily chosen cutoff in the intensity of the photocurrents,
- > defining the 1-bit approximation of the photocurrent intensity i.e. the
- > "trigger", cf. [1]) at location A is affected in any way by the
- > "trigger" or "non-trigger" at some space-like location B. (The only
- > experiments, such as [2], which make such claims, blatantly cheat.

What about

[http://www.sciencemag.org/cgi/content/abstract/1095232v1?](http://www.sciencemag.org/cgi/content/abstract/1095232v1?ijkey=KrrraAggFbbXQ&keytype=ref&siteid=sci)

ijkey=KrrraAggFbbXQ&keytype=ref&siteid=sci

[quote]

Deterministic Generation of Single Photons from One Atom Trapped in a Cavity

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A single Cesium atom trapped within the mode of an optical cavity is used to generate single photons on demand. The photon wavepackets are emitted as a Gaussian beam with temporal profile and repetition rate controlled by external driving fields. Each generation attempt is inferred to succeed with probability near unity, while the efficiency for creating an unpolarized photon in the total cavity output is 0.69 ± 0.10 , as limited by passive cavity losses. An average of 1.4×10^4 photons are produced by each trapped atom. These results constitute an important step in quantum information science, for example toward the realization of distributed quantum networking.

[unquote]

How do such experiments 'cheat'?

Re: The time it takes to emit one photon

They have other interesting experiments also.
<http://www.its.caltech.edu/~qoptics/atomorbits/>

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bz

please pardon my infinite ignorance, the set-of-things-I-do-not-know is an infinite set.

bz+spr@xxxxxxxxxxxxxxxxxxxx remove ch100-5 to avoid spam trap

• **References:**

- ◆ **Re: The time it takes to emit one photon**
◇ From: nightlight

- Prev by Date: **Re: Q: Recent review article on Einstein–Cartan theory, physics and**
- Next by Date: **New paper, may contain a solution to the NuTeV anomaly**
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