

Re: A silly fact about an atomic clock that relativist never want you to know.

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Source: <http://sci.tech-archive.net/Archive/sci.physics.relativity/2008-07/msg01242.html>

- *From:* "Spaceman" <spaceman@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Mon, 14 Jul 2008 11:21:43 -0400
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Sue... wrote:

On Jul 13, 11:27 pm, "Spaceman" <space...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

You see, the basic atomic clock actually has to use gravity to get it's most accurate reading. They actually have a "fountain" almost like a water fountain only it is forcing a very tiny ball or atoms upward and it has to use gravity to return down and be counted as one second.

If you actually take the silly thing and flip it upside down, It is as good as any pendulum clock of yesteryear. It simply won't work right. Isn't that funny? Want to read about it also.

<http://tf.nist.gov/cesium/fountain.htm>

Do the cesium clocks on the GPS satellite vehicles use a fountain?

Not sure and probably not the same, but something in the same sort of form must be going on. and cesium atoms are not immune to gravitational effects so fountain or not, the atom will still be subject to g forces. Unless cesium is immune to g-forces like some special alien spaceship would be. :)

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James M Driscoll Jr
Spaceman

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