

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/msg01236.html>

- *From:* "Spaceman" <spaceman@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Mon, 14 Jul 2008 11:50:25 -0400
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PD wrote:

On Jul 14, 10:21 am, "Spaceman" <space...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

Sue... wrote:

On Jul 13, 11:27 pm, "Spaceman" <space...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> 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?

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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.
:)

Already discussed. Time dilation appears in cases where the atoms are
moving and not moving and both are in the *same* gravitational field,
and so the "g-forces" are not responsible for the time dilation.

Not moving (at rest) on a curved path and moving along a curved path are
a difference in g-forces.
the faster the motion in the curved path, the larger change in g-force.
Again, PD thinks the atom is immune to g-forces and for some
silly reason he thinks an orbit is an inertial path, even though
it has a 90 degree -g-force and a forward motion keeping it in orbit.
Someday you might get it PD, but you need to actually think about it
instead of just worship the wrong thoughts about it.

—
James M Driscoll Jr
Spaceman