

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

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- *From:* "Spaceman" <spaceman@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Mon, 14 Jul 2008 13:39:40 -0400
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Uncle Ben wrote:

On Jul 14, 1:01 pm, "Spaceman" <space...@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx> wrote:

Uncle Ben wrote:

I'll go for one more round.

The cluster is certainly subject to gravity, but it is precisely because of that that the cluster is sent up gently and allowed to fall freely while the atoms interact with photons. The free fall cancels the effect of gravity. That's why they throw them up and let them fall.

If it truly "cancelled gravity", it would not be falling at all. Why don't you get that? When it falls in freefall is accelerating. acceleration is a g-force event. Or do you think when you fall, you do not accelerate at all? :)

—
James M Driscoll Jr
Spaceman

Yes, speaking loosely, acceleration is a g-force event. So is being in a gravitational field. But in this case these two cancel each other. That is the point.

Have you ever seen video of astronaut training in which they are in an airplane that is carefully following a parabolic arc that imitates the

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path of a projectile falling freely? The guys are floating around in the plane as if there is no gravity. Note the "as if." Yes, there is still gravity at work, but there is also the acceleration at work. And they cancel each other.

So you admit the "atom" in freefall, will not fall inside the clock that is also in freefall.

:)

Maybe it is you that should think about that.

:)

—

James M Driscoll Jr
Spaceman

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