

Re: Brookhaven Responds to black hole report

Source: <http://sci.tech-archive.net/Archive/sci.physics/2005-03/11989.html>

From: Uncle Al (UncleAl0_at_hate.spam.net)

Date: 03/23/05

Date: Wed, 23 Mar 2005 09:25:29 -0800

Mark Martin wrote:

>

> *Uncle Al wrote:*

>

>> *That's a truly deep insight. In this sense alone the experiment is also*

>>> *a test of the equivalence principle, of general relativity, under extreme conditions.*

>>

>> *How do you figure that? If the EP were violated by 10% or it were not, what difference would it make in the cited example? If GR were incorrect by 10% or it were not, what difference would it make in the cited example?*

>

> *To be more clear, the specific experimental run may or may not have the precision to do so. I was more in the mindset of suddenly being shown something that was dangling in front of me all this time, that high energy accelerators may, at least in principle, be used to create extreme "gravitational" conditions. It's cool.*

Particle accelerators create extreme accelerations on particle impact. Gravitational and inertial acceleration are apparently fundamentally indistinguishable. Current models of interaction during and after such high energy collisions predict detected outputs with remarkable accuracy. Do they include gravitational time anomalies from the high accelerations?

Composition violations of the Equivalence Principle (EP) do not occur to one part in 10^{13} difference/average by observation,

<<http://wugrav.wustl.edu/people/CMW/update98.pdf>>

<<http://www.astro.northwestern.edu/AspenW04/Papers/lorimer1.pdf>>

Equivalence Principle testing

<http://arXiv.org/abs/gr-qc/0411113>

<<http://www.npl.washington.edu/eotwash/pdf/pr183-3585.pdf>>

<http://arXiv.org/abs/gr-qc/0301024>

Phys. Rev. Lett. 93 261101 (2004)

Nordtvedt Effect

Nobody knows if there are EP parity violations due to geometry (at least until the end of this year). Relativistic polarized colliding beams are chiral. Polarized collisions have been explored and they must account for geometry. However...

- 1) Nobody has ever produced a TeV high luminance polarized collider, and
- 2) Chirality degenerates to helicity when the particles slow. When things would get interesting the variable vanishes.

Calculate the average acceleration of a 125 grain .357 Magnum semijacketed hollow point bullet as it starts from rest and passes down a 6" S&W barrel to exit at 1450 ft/sec. It is a rather large number. The large Δv of particle collisions given the short times puts out some impressive acceleration numbers. To say that this is a gravitational black hole is dancing on thin ice. Commercial ultracentrifuges can generate more than one million gees continuous, but there is no associated time dilation at the rim – by direct measurement (Mossbauer resonance with the hub).

If the Earth had a surface gravity of one million gees its escape velocity would be 7000 miles/second – not relativistic.

--

Uncle Al

<http://www.mazepath.com/uncleal/>

(Toxic URL! Unsafe for children and most mammals)

<http://www.mazepath.com/uncleal/gz.pdf>