

Re: The Biggest Experiments in Science

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- *From:* simohunt@xxxxxxxxxxxx (Spiros)
 - *Date:* Wed, 30 Mar 2005 20:04:01 +0000 (UTC)
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Uncle Al <UncleAl0@xxxxxxxxxxxx> wrote in message
news:<42499E38.C3ABA453@xxxxxxxxxxxx>...

> Spiros wrote:

>>

>> Hello,

>>

>> I am posting to this group as it is moderated and i shall hopefull
>> avoid cranks and glean some sensible and authoratative information.

>>

>> I work for a newly formed TV production company that is at the
>> development phase of a programme based on what currently costitute the
>> biggest experiments in science. "Biggest" in this sense relates not
>> only to scale but also to the the extent to which they are probing the
>> fundamentals of physics and existence.

>>

>> The ones that i have researched to date and which semm to fit this
>> framework are as follows:

>>

- >> 1) The Large Hadron Collider (LHC) at CERN
- >> 2) The ITER nuclear fusion project
- >> 3) The Cassini / Huygens project to determine if life could exist on
>> Titan
- >> 4) Laser Interferometer Wave Observatory (LIGO)
- >> 5) The Pierre Auger Observatory – high energy cosmic ray experiement

>>

>> I would appreciate feedback on this choice. Please bear in mind that
>> although bigger experiments are being proposed the above either all
>> exist, or will soon to as funding has been allocated.

>>

>> Also bear in mind that I work in TV and too many equations tend to
>> make me want to reach for yet another gin and tonic.

>

> <http://einstein.stanford.edu/>

> Gravity Probe-B. Does the spinning Earth grab space?

>

> The very biggest experiments can fit on a benchtop. If you had two
> lumps of stuff that fell differently you would kill General Relativity
> (that assumes everything local falls identically in vacuum – the
> Equivalence Principle). You might also take down the Standard Model

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- > and quantum mechanics. Folks have wondered if different chemical
- > compositions fall differently for 400+ years,
- >
- > <http://www.mazepath.com/uncleal/eotvos.htm#b22>
- > historical list
- >
- > The apparatus has become wonderfully clever and sensitive – the size
- > of your fist shielded inside a water heater,
- >
- > <http://www.npl.washington>.