

Re: Update on LIGO.

# Re: Update on LIGO.

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*Source:* <http://sci.tech-archive.net/Archive/sci.physics/2008-01/msg01545.html>

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- *From:* Eric Gisse <jowr.pi@xxxxxxxxxx>
  - *Date:* Sun, 20 Jan 2008 05:11:04 -0800 (PST)
- 

On Jan 19, 9:32 pm, cliff wright <c.c.wri...@xxxxxxxxxxxxxxxxxx> wrote:

Eric Gisse wrote:

On Jan 19, 12:08 pm, cliff wright <c.c.wri...@xxxxxxxxxxxxxxxxxx> wrote:

Eric Gisse wrote:

On Jan 19, 1:53 am, cliff wright  
<c.c.wri...@xxxxxxxxxxxxxxxxxx> wrote:

cliff wright wrote:

Benj wrote:

On  
Jan  
18,  
12:10  
am,  
Eric  
Gisse  
<jowr...@xxxxxxxxxx>  
wrote:

Why  
don't

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you  
be  
more  
clever  
and  
explain  
why  
you  
think  
gravitational  
waves  
don't  
exist  
despite  
the  
repeated  
indirect  
observations  
of  
their  
emission  
and  
the  
lack  
of  
even  
one  
observational  
disproof  
of  
GR?

Is  
this  
an  
open  
call?

Well  
since  
it  
is  
clear  
that  
\*I\*  
am  
awl

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that  
matters  
now  
and  
the  
only  
one  
posting  
here  
smarter  
than  
Einstein,  
I  
will  
explain  
it  
awl  
to  
you!

"Gravity  
waves"  
are  
such  
a  
hoax  
because  
gravity  
is  
in  
serious  
need  
of  
"debunking"!  
The  
mistake  
is  
that  
everybody  
thinks  
that  
gravity  
is  
an  
attraction  
between  
masses.  
Just  
one

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more  
stupidity  
of  
the  
physicists!  
Put  
it  
in  
the  
same  
dustbin  
as  
"big  
bang",  
"displacement  
current",  
"action  
at  
a  
distance"  
and  
all  
the  
rest  
of  
the  
"phlogiston  
theories".  
Gravity  
is  
a  
PUSH  
shoving  
objects  
together.  
Take  
all  
that  
Einsteinian  
mathematics  
about  
"4-space  
warps"  
and  
all  
the  
rest  
and  
dump  
it  
in

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the  
SAME  
dustbin!  
\*I\*  
am  
awl  
that  
matters  
now!

Gravity  
is  
a  
push  
created  
when  
pre-existing  
waves  
upon  
the  
surface  
of  
the  
4D+  
Hypersphere  
which  
is  
the  
universe  
are  
shielded  
by  
mass.  
The  
result  
(as  
theorized  
by  
Feynman  
and  
Wheeler)  
is  
the  
creation  
of  
a  
"PUSH"  
that  
shoves

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the  
objects  
toward  
each  
other  
due  
to  
the  
"shadow"  
each  
creates  
upon  
the  
other.  
So  
the  
bottom  
line  
is  
you  
can  
"wiggle"  
masses  
all  
you  
like  
but  
the  
most  
you  
can  
do  
is  
"wiggle"  
the  
shadows  
they  
cast.  
You  
will  
NOT  
be  
sending  
out  
any  
kind  
of  
mass-generated  
"gravity  
waves"!  
Sheesh.

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Re: Update on LIGO.

politically  
motivated  
question  
and having  
some  
particular  
position  
regarding  
the Middle  
East.  
3- Of being  
"Anti  
Science".

Now, and  
yes this is  
directed to  
Eric in the  
first  
instance,  
but touches  
on other  
postings as  
well.  
Thanks for  
the  
information  
about the  
slow  
analysis of  
the data  
from LIGO  
runs. Is this  
due to lack  
of  
computing  
power or  
actual  
problems  
with the  
analysis?  
As to costs.  
In a world  
where  
perfectly  
good  
existing  
Astronomical  
equipment

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is being  
mothballed  
or disposed  
of because  
of lack of  
funds,  
to quote  
only one  
example, a  
billion \$US  
can make  
alot of  
difference.

As to  
understanding  
Physics. As  
yet we have  
NO  
reasonable  
theory of  
gravitation  
which  
combines  
Relativity  
and  
Quantum  
mechanics.  
However if  
you have  
one perhaps  
the Nobel  
commitee  
might be  
interested.  
I have been  
involved in  
Physics in  
many fields  
for over 50  
years  
including  
Astronomy  
both radio  
and optical,  
Acoustics,  
Aerodynamics  
, solid state  
Physics and

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semiconductors.

Ok so we  
have seen  
some  
apparent  
energy  
changes in  
the orbits of  
high  
density  
objects  
around each  
other. But  
consider,  
we do not  
actually  
have  
any real  
idea what  
we are  
observing in  
terms of the  
nature and  
especially  
the density  
of the  
objects  
involved.  
Certainly  
we have  
theories but  
with so  
little real  
data any  
such theory  
is on shaky  
ground.

I gather that  
Hulse and  
Taylor  
received a  
Nobel prize  
for work on  
Gravitational  
radiation. I

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haven't had  
a chance to  
check up on  
this yet  
but  
certainly  
will within  
a few days.  
That may or  
may not be  
relevant I  
still  
remember  
the Nobel  
prize for the  
discovery of  
Pulsars  
going to an  
academic  
who  
actually  
discouraged  
the research  
assistant,  
who made  
the  
real  
discovery.  
So the  
Nobel prize  
is not  
always a  
great  
criterion.

Next  
question. In  
what way  
have the  
models of  
"Gravitational  
Waves"  
been  
modified  
from  
LIGO's non  
results?  
Now Please  
don't reply

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that I have  
to be  
familiar  
with an  
arcane  
branch  
of Tensor  
calculus to  
know! That  
is not an  
answer at  
all.

Any theory  
must have  
some kind  
of model  
behind it.  
Indeed a  
touchstone  
of a great  
Physicist  
like Richard  
Feynman is  
that he  
could  
explain a  
model of  
his ideas  
that an  
interested  
person  
could  
understand.

This  
without  
using a  
single 4  
letter word!

Sure things  
have indeed  
progressed  
since  
Weber's  
cylinders.  
Sensitivity  
to the  
changes  
being

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sought has  
enormously  
increased  
and  
instrumentation  
and analysis  
are many  
orders of  
magnitude  
better.  
But STILL  
no signals.

As another  
poster has  
pointed out  
even if the  
GW signals  
are  
somewhat  
different in  
frequency  
then we  
have serious  
problems.  
All the  
equipment  
used so far  
is  
dependent  
on  
resonance  
effects to a  
great  
degree.  
It has been  
suggested  
that we  
reduce the  
bandwidth  
to get a  
better S/N  
ratio. Fine  
but then our  
detection  
process gets  
less and less  
likely too.

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I have made  
a study of  
early Radio  
and until  
about 1905  
it was often  
the  
case that the  
reason that  
an  
installation  
didn't work  
was simply  
that  
they were  
on different  
frequencies  
and until  
then there  
was no way  
of  
measuring  
them.

We are  
obviously in  
at least as  
difficult a  
position  
here as  
Marconi  
was  
about 1902.  
At least he  
had  
Maxwell  
and Hertz to  
fall back on  
and could  
generate a  
signal in his  
laboratory  
whenever  
he needed  
to.

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Hope we  
get more  
light and  
less heat if  
this  
discussion  
continues.  
Regards  
Cliff Wright

A foot note to my last  
posting on this subject. Just  
today on my regular  
"Sky and Telescope" update  
we have a pair of apparent  
Neutron stars which  
exceed Chandreskar's limit  
of 1.4 solar masses by a  
large margin. So now  
what are we looking at?

How large a margin? The exact limit is  
fungible – if it is much larger  
than 2 solar masses, I'd start wondering wtf  
is going on.

We also have news that  
Canada's David Dunlop  
observatory is under threat  
of closure due to lack of  
funds. That is what I meant  
CCW.

Well Eric the preliminary figures are 1.9 and 2.7 solar  
masses  
respectively, so we are well over 2.0 at least in one case.

How "preliminary" is preliminary?

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This could be interesting, or it could be yet another case of "oops, reported too early".

Indeed one does have to wonder what is going on.  
IMO this shows that the whole theory of stellar mass black holes needs revising. Has anyone done any work on a body composed of quarks, like a single massive neutron or proton I wonder?

Yea, because of one interesting result the whole theory has to be thrown in the toilet even if the theory that is broken is loosely related to the existence of black holes.

Taken at face value, all this says is that the expected composition of a neutron star may be wrong. Or this might be a more exotic star that has internal pressures capable of holding off gravity's loving embrace.

What this does not say is that black holes don't exist, or that the theory of black holes is wrong.

However, General Relativity places /extremely stringent/ bounds on how much mass can be packed in a given volume before it undergoes gravitational collapse. The bounds are based on some rather weak assumptions, too. If you want to see assault on black holes, get a reading on the radius of the object and show that there is more mass density than the region should be able to support.

I was interested in the debate on GRB's, the last seminar I went to on these about 4 years ago the idea of symmetrical radiation from the polar regions of hyper dense objects held sway. Since this would be balanced how would this affect the "gravitational radiation" signal such an object might emit under catastrophic conditions?

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No idea, but there are plenty of papers on the subject.

As to the sky quality at David Dunlap observatory. Well many observatories have that problem these days. Why could the instruments not be relocated to a better site? Observatory design is much better these days and relatively cheaper too. A bit of sensible lighting control might help also.  
Cliff Wright.

Just looked up the article Eric. They have apparently 18 years worth of data at Arecibo on the first pair in a globular cluster in Serpens (M5) and have just a few months of data on another pair, of similar masses. They have a lot of quite advanced measurements on the first pair as a result of having such a long data collection period and this it seems backs up the mass estimates. The main researcher is Paulo Freire. Have a look at [www.skyandtelescope.com/community/skyblog/newsblog/13876772.html](http://www.skyandtelescope.com/community/skyblog/newsblog/13876772.html)  
Cliff Wright.

Thanks for the article.

Looks like they found an edge case. I wonder what makes this one so special...

.