

## Re: SR time dilation on remote objects ?

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**From:** Bjoern Feuerbacher ([feuerbac\\_at\\_thphys.uni-heidelberg.de](mailto:feuerbac_at_thphys.uni-heidelberg.de))

**Date:** 07/21/04

Date: Wed, 21 Jul 2004 10:06:04 +0200

vonroach wrote:

> *On Tue, 20 Jul 2004 09:54:46 +0200, Bjoern Feuerbacher*

> *<[feuerbac@thphys.uni-heidelberg.de](mailto:feuerbac@thphys.uni-heidelberg.de)> wrote:*

>

>

>> *vonroach wrote:*

[snip]

>>> *When a building is imploded by explosive charges, a large*

>>> *cloud of dust and particles is extruded with considerable energy,*

>>> *resulting from the imploding building, not the explosive charges.*

>>

>> *In a supernova explosion, there is only a quite tiny remainder (type*

>> *II), or no remainder at all (type I)*

I see that you *\*still\** ignore the difference between type I and type II below.

>> *– most or even all of the matter of*

>> *the original star is blown away. In contrast, most the building is still*

>> *in place after the cloud of dust has been blown away. So this is a false*

>> *analogy.*

>

>

> *No, you are incorrect. Your `explanation' is ludicrous. An*

> *active star consumes almost all its fuel to the point that it*

> *cannot generate enough energy to support its own outer layers.*

> *And with that*

> *severe absence of fuel, you hypothesize that it `explodes'.*

> *ROFLMAO.*

> *It implodes*

The *\*core\** implodes, and that leads to violent nuclear reactions again due to the increased temperature and pressure. The energy from these reactions then leads to the actual implosion.

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That is well-known stuff – you can read about it in most astronomy books. So that isn't ridiculous at all.

- > *and the implosion can only be halted by neutrons,*
- > *otherwise it becomes a black hole*

The term "otherwise" makes no sense here at all. You imply that if there are no neutrons, a black hole will form.

That is totally wrong – even *\*if\** there are neutrons, a black hole *\*will\** form, if the remainder is massive enough. Ever heard of the term "Chandrasekhar limit"?

- >– *whatever that may ultimately turn*
- > *out to be. And the bright supernova remnant expands and*
- > *fades into the interstellar medium.*

*\*sigh\** This supernova remnant is the remnant of the *\*explosion\**. What do *\*you\** think why this stuff moves at high speeds away from the point where the SN occurred?

- >>> *Now,*
- >>> *in the case of a `supernova', does a star implode or explode?*
- >>
- >> *First an implosion, and due to that implosion, a \*huge\* amount of*
- >> *energy is released. And \*that\* energy release is called the supernova*
- >>– *not the implosion which causes it! And that energy release \*obviously\**
- >> *is an \*explosion\*!*
- >
- >
- > *Yes the supernova (unstable giant star) IMPLODES.*

A supernova is *\*not\** an "unstable giant star". A supernova is the *\*explosion\** of an star (not even necessarily a giant star!), caused (in the case of SN type II) by the *\*implosion\** of its core.

See <[www.m-w.org](http://www.m-w.org)>. Do you want to argue with *\*dictionary definitions\** now?

- > *Now you can discuss*
- > *the fate of the extruded remnant, thereafter called a supernova*
- > *remnant.*

Did it ever occur to you that this stuff is "extruded" (shot away violently) *\*due to\** an explosion? If there were no explosion, why would that stuff fly away at high speeds?

[snip]

- >> *Err, the energy which makes the remnant glow comes from the explosion.*
- >

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> *Wrong again, it is the remanent of implosion of a giant unstable star.*

If it were the remnant of an \*implosion\*, it obviously would not fly away from the point where the SN occurred!!!!

> *If the star had material left to 'explode' it would continue to exist and support its own structure.*

Absolute total utter non sequitur!

Haven't you got the \*faintest\* clue of what nuclear reactions occur in a SN?

>>>*If you choose to call it an explosion, how do you explain the neutron star or black hole that may be observed to follow?*  
>>>*First, it follows only in supernova type II, not in type I. Second, as I said above, even in type II, most of the matter of the original star is ejected, blown away.*

And you \*still\* ignore the difference between type I and type II.

>>>*With regard to the 'big bang' theory, it appears that there was a mysterious explosion, if the theory is correct.*  
>>>*Calling the Big Bang an explosion suggest that you either use the term quite loosely, or that you don't know what the theory really says.*  
>>>*Now you seek to explain the 'Big Bang' be my guest. Start with the out of nothing came everything part.*

The total energy of the universe is zero. The same for the total momentum etc..

So no conservation laws were violated.

That comment alone shows nicely that you don't understand the BBT, exactly as expected.

> *Then continue with what was before plasma.*

Quark–gluon plasma.

> *talk about plasma a bit,*

What do you want to know, specifically?

> *then explain the formation of nuclei*

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What do you want to know about that?

Hey, all of that stuff is nicely explained in lots of books and articles on the web. Why should I spoon-feed you?

> *and later atoms, little photons ...all with uncertainty.*

Huh? What uncertainty do you mean?

> *Explain the formation of stars*

Ever heard of the "Jeans instability"?

> *and galaxies*

Ever looked at cosmological computer simulations?

> *and the coming of light.*

What do you mean by "coming of light"?

> *A chaos of*

> *creation that you should be able to master in a few crisp*

> *sentences.*

Your sarcasm becomes boring. You only show your own ignorance. This is not skepticism, this is denial.

> *And is it still expanding or does it just appear to be so.*

It is still expanding. The expansion is accelerating, have you already forgotten?

> *Plumb the*

> *tiny dimensions of matter and the gigantic collections of matter*

> *beyond our knowledge.*

I have no clue what you mean here.

> *Of course what you will be basing this fiction*

> *on, is not the 'big bang' but the big bang remanent that we*

> *observe at present.*

As Peebles, a very famous cosmologists, said: the BBT is not about the origin of the universe, but about its development since the origin.

> *I will excuse any confusion between events and remnants of*

> *events.*

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Well, you keep confusing the SN explosion which caused the debris flying outwards with the remnant themselves.

[snip]

>>> *Disagreement on the `meaning' of a red shift. You can dispute that*  
>>> *with others.*

>>

>> *\*Who\* disagrees on the meaning of red shift? Do you mean people like*  
>> *Tift and Arp, or some of the crackpots here in the newsgroup?*

>

>

> *No,*

Then *\*who\** do you mean?

> *do you recognize even two possible causes for a `red shift'?*  
> *Expanding spacetime? Gravitational? Both associated with `time*  
> *dilatation.*

Yes, these are two things which can cause a red shift. However, the cosmological red shift is *\*not\** a gravitational red shift. As nicely shown by the evidence.

Bye,  
Bjoern