

Re: FTL communication

Source: <http://sci.tech--archive.net/Archive/sci.physics/2006-01/msg04009.html>

- *From:* "Dirk Van de moortel" <dirkvandemoortel@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>
 - *Date:* Mon, 30 Jan 2006 21:44:05 GMT
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"Randy Poe" <poespam-trap@xxxxxxxxxx> wrote in message
<news:1138656113.432876.282120@xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx>

>
> Spaceman wrote:
>> <snipped from [http://en.wikipedia.org/wiki/speed of light](http://en.wikipedia.org/wiki/speed_of_light) >
>>
>> It has long been known theoretically that it is possible for the group
>> velocity of light to exceed c . One recent experiment made the group velocity
>> of laser beams travel for extremely short distances through caesium atoms at
>> 300 times c .
>>
>> If such is true,
>> a group velocity travels 300 times FTL.
>> It is simple to send info FTL
>>
>> simply use 2 setups
>> 1 turned on only if by land,
>> 2 turned on if by sea.
>
> Nope. The information that it is turned on can't get there any
> faster than c .
>
> There used to be a nice online simulation of the 300c experiment.
> It showed pretty clearly the difference between phase velocity
> and group velocity. It let you turn the pulse train on and
> off. When you first flip the switch, the information travels
> at c . It is only after that change propagates through the
> channel that you start seeing pulses "propagating" at
> 300c.
>
> Turn the switch off and again the information travels
> to the other end at c .

<http://gregegan.customer.netspace.net.au/APPLETS/20/20.html>
http://www2.ee.mu.oz.au/staff/summer/applets/group_velocity.html
<http://webphysics.davidson.edu/Applets/superposition/GroupVelocity.html>
http://galileo.phys.virginia.edu/classes/109N/more_stuff/Applets/sines/GroupVelocity.html

I think you had the first one in mind?

Dirk Vdm

• *Follow-Ups:*

- ◆ *Re: FTL communication*
 ◇ *From: Randy Poe*
- ◆ *Re: FTL communication*
 ◇ *From: Spaceman*

• *References:*

- ◆ *FTL communication*
 ◇ *From: Spaceman*
 - ◆ *Re: FTL communication*
 ◇ *From: Randy Poe*
- Prev by Date: *Re: What does it take to be a physicist?*
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