

SOUND CAN GO FASTER THAN LIGHT – NOT KIDDING

SOUND TRAVELING FASTER THAN THE SPEED OF LIGHT - EVEN FASTER THAN TIME I.E. SOUND MESSAGES ARRIVING BEFORE THEY ARE SENT!!!

THIS IS A CLEAR EXAMPLE OF ENERGY CONVERTING FROM 3-D TO 2-D AND THE SEEMINGLY STRANGE PHENOMENA THAT OCCUR. SEPP, THANK YOU FOR VERIFYING THAT THIS IS A TRUE STORY VIA:

the story is true alright. It was [published in Applied Physics Letters](#) .

AND

Soyrcce: <http://www.physorg.com/printnews.php?newsid=88249076>

THE COWBOY'S COMMENTS IN ALL CAPS AS USUAL:

For the first time, scientists have experimentally demonstrated that sound pulses can travel at velocities faster than the speed of light, c . William Robertson's team from Middle Tennessee State University also showed that the group velocity of sound waves can become infinite, and even negative.

NEGATIVE - STRANGE WORD - BUT THE PHENOMENA IS DIFFICULT TO EXPLAIN I.E. MESSAGES ARRIVING BEFORE THEY ARE SENT - THEY USED THE WORD NEGATIVE FOR GOOD REASON - IF THEY TOLD IT STRAIGHT LIKE I DO, THEN THE WORLD OF SCIENCE WOULD NOT ACCEPT IT. AND RIGHT NOW THIS SOUND PHENOMENA IS BEING ACCEPTED AND PUBLISHED, WHICH IS VERY GOOD FOR US - AS YOU WILL SEE.

Past experiments have demonstrated that the group velocities of other materials' components—such as optical, microwave, and electrical pulses—can exceed the speed of light. But while the individual spectral components of these pulses have velocities very close to c , the components of sound waves are almost six orders of magnitude slower than light (compare 340 m/s to 300,000,000 m/s).

"All of the interest in fast (and slow) wave velocity for all types of waves (optical, electrical, and acoustic) was initially to gain a fundamental understanding of the characteristics of wave propagation," Robertson told PhysOrg.com. "Phase manipulation can change the phase relationship between these materials' components. Using sound to create a group velocity that exceeds the speed of light is significant here because it dramatically illustrates this point, due to the large difference between the speeds of sound and light."

IN THIS CASE THE TERM PHASE MANIPULATIONS REFERS DIRECTLY TO THE PERIOD OF THE SOUND WAVES BEING AS MUCH AS 180 DEGREES OUT OF PHASE WITH THE INITIAL PROPAGATION. IN OTHER WORDS, YOU START OUT WITH A BUNCH OF SOUND WAVES AND STRIP OFF PART OF THESE WAVES ALLOWING THEM TO RECOMBINE WITH THE STRIPPED OFF PORTION HAVING ITS AMPLITUDE EXACTLY OPPOSITE MOST OF THE ORIGINAL WAVES IN THE GROUP.

THIS THEN BECOMES A SCALAR WAVE, WHICH THEN TRAVELS IN HARMONY WITH THE AETHER, WHICH IS 2-D. FYI: THE ELECTRIC AND MAGNETIC COMPONENTS CHANGE THEIR PHASE ANGLE, ALSO!!!

The experiment was conducted by two undergrads, an area high school teacher and two high school students, who received funding by an NSF STEP (Science, technology, engineering, math Talent Enhancement Program) grant. The grant aims to increase recruitment and retention of students to these subjects.

In their experiment, the researchers achieved superluminal sound velocity by rephasing the spectral components of the sound pulses, which later recombine to form an identical-looking part of the pulse much further along within the pulse. So it's not the actual sound waves that exceed c , but the waves' "group velocity," or the "length of the sample divided by the time taken for the peak of a pulse to traverse the sample."

"The sound-faster-than-light result will not be a surprise to the folks who work closely in this area because they recognize that the group velocity (the velocity that the peak of a pulse moves) is not merely connected to the velocity of all of the frequencies that superpose to create that pulse," explained Robertson, "but rather to the manner in which a material or a filter changes the phase relationship between these components. By appropriate phase manipulation (rephasing) the group velocity can be increased or decreased."

To rephase the spectral components, the sound waves were sent through an asymmetric loop filter on a waveguide of PVC pipe, about 8 m long. The 0.65-meter loop split the sound waves into two unequal path lengths, resulting in destructive interference and standing wave resonances that together created transmission dips at regular frequencies.

Due to anomalous dispersion (which changes the wave speed), sound pulses traveling through the loop filter arrived at the exit sooner than pulses traveling straight through the PVC. With this experiment, the group velocity could actually reach an infinitely small amount of time, although the individual spectral components still travel at the speed of sound.

"We also achieved what is known as a 'negative group velocity,' a situation in which the peak of the output pulse exits the filter before the peak of the input pulse has reached the beginning of the filter," explained Robertson. "Using the definition for speed as being equal to distance divided by time, we measured a negative time and thus realized a negative velocity."

It might not seem that a negative velocity would exceed the speed of light, but in this case, Robertson said, the speed of the pulse is actually much faster than c .

YEAH RIGHT! THE BOTTOM LINE IS THAT THE INFORMATION IN THE SOUND WAS REACHING THE OTHER END BEFORE IT WAS SENT. THIS IS VERY IMPORTANT NOT TO BE TAKEN LIGHTLY AS HE JUST TRIED TO DO. THE EXPLANATION WITHIN THE 2-D UNIFORM FIELD WILL FOLLOW --->

"Consider the pulse speed in a slightly less dramatic case," Robertson said. "Say the peak of the output pulse exits the filter at exactly the same time as the input pulse reaches the beginning. In this less dramatic case, the transit time is zero and the speed (distance divided by zero) is infinite. So we were beyond infinite! ('To infinity and beyond,' to steal a line from Toy Story.) In our experiment, we

measured a negative transit time corresponding to a negative group velocity of -52 m/s."

INFINITY BEYOND INFINITY IS WELL DESCRIBED IN THE "FEEL HOW" ESSAY.

Although such results may at first appear to violate special relativity (Einstein's law that no material object can exceed the speed of light), the actual significance of these experiments is a little different. These types of superluminal phenomena, Robertson et al. explain, violate neither causality nor special relativity, nor do they enable information to travel faster than c . In fact, theoretical work had predicted that the superluminal speed of the group velocity of sound waves should exist.

WELL, THEN IT WIPES OUT A NUMBER OF LAWS - NOW DOESN'T IT? HE'S JUST TRYING NOT TO SAY THAT THIS EXPERIMENT DEFIES ALL THE SUPPOSED LAWS OF PHYSICS - SO THE LAWS ARE NOT REALLY LAWS - MORE LIKE GUIDE LINES.

"The key to understanding this seeming paradox is that no wave energy exceeded the speed of light," said Robertson. "Because we were passing the pulse through a filter, the sped-up pulse was much smaller (by more than a factor of 10) than the input pulse. Essentially, the pulse that made it through the filter was an exact (but smaller) replica of the input pulse. This replica is carved from the leading edge of the input pulse. At all times, the net energy of the wave crossing the filter region was equal to, or less than, the energy that would have arrived if the input pulse had been traveling in a straight pipe instead of through the filter."

IN SCALAR IT TAKES VERY LITTLE ENERGY TO TRANSMIT.

Is this phenomenon simply the result of a clever set-up, or can it actually occur in the real world? According to the scientists, the interference that occurs in the loop filter is directly analogous to the "comb filtering" effect in architectural acoustics, where sound interference occurs between sound directly from a source and that reflected by a hard surface.

"The superluminal acoustic effect we have described is likely a ubiquitous but imperceptible phenomenon in the everyday world," the scientists conclude.

Citation: Robertson, W., Pappafotis, J., Flannigan, P., Cathey, J., Cathey, B., and Klaus, C. "Sound beyond the speed of light: Measurement of negative group velocity in an acoustic loop filter." Applied Physics Letters 90, 014102 (2007).

OK GUYS, NOW THE EXPLANATION USING 2-D AND THE UNIFORM FIELD. THIS IS SO SIMPLE:

THE SCALAR WAVES ARE **AUTOMATICALLY IN HARMONY WITH THE AETHER** - IN THE AETHER THERE IS NO TIME - SO THE INFORMATION APPENDED TO THE SOUND TRAVELS VIA THE GAP AT ANY NUMBER OF PERCEIVED SPEEDS - WELL, SINCE THERE IS NO TIME IN 2-D - THEN SPEED CAN NOT BE CALCULATED - THE SPEED IS IRRELEVANT.

MORE IMPORTANTLY, THIS PHENOMENA OF INFORMATION ARRIVING BEFORE IT IS SENT IS QUITE NORMAL IN OUR WORLD - PEOPLE AND SCIENCE JUST DO NOT REALIZE THE SIGNIFICANCE.

VERY SIGNIFICANT: FOR EVERY ACTION THERE IS AN EQUAL AND OPPOSITE REACTION - WRONG. HERE WE HAVE ENERGY AND INFORMATION ARRIVING BEFORE IT IS SENT - THE INITIAL ACTION HAS NOT HAPPENED YET!!! SO EQUAL AND OPPOSITE TO WHAT? NOTHING - IT JUST HAPPENED OUT OF THE AETHERS - AND THAT IS THE TRUTH. WHY NOT ACCEPT IT?

THE ONE OPERATIVE RULE IS "LIKE ATTRACTS LIKE" WHICH IS KIND OF LIKE FOR EVERY ACTION THERE IS AN EQUAL AND OPPOSITE REACTION BUT, NOT THE SAME. THIS IS VERY DEFINITELY NOT CONSERVATION OF MATTER & ENERGY - ALL THINGS MANIFEST HERE DIVINELY - THE DIVINE CONSCIOUSNESS DOES NOT NEED TO CONSERVE. PLEASE.

FURTHER EXAMPLES OF PRE-EXISTING INFORMATION: DE JA VU, PRECOGNITION.

THESE INTERESTING SCIENTIFIC FACTS - BELL'S THEOREM - THE TWO PARTICLES DEMONSTRATED THE ABILITY TO RECEIVE MESSAGES BEFORE THEY COULD BE SENT - OVER AND OVER AGAIN. ALAIN ASPECT RAN THE EXPERIMENT MANY MANY TIMES AS HAVE OTHERS.

THE BAXTER EFFECT - BAXTER'S PLANTS KNEW BEFORE HAND

HEISENBERG & SCHROEDINGER - TRYING TO SOLVE THE PROBLEM OF SUB-ATOMIC EXPERIMENTS MIRRORING THE PHYSICIST'S EXPECTATIONS. BUT, WHY? WHY NOT AGREE WITH THE FACT.

THE HUMAN BODY REACTING TO RANDOM SCENES BEFORE THEY SEE THEM. AN EXPERIMENT PERFORMED MANY TIMES UNDER LABORATORY CONDITIONS. THE BODY KNEW WHAT WAS COMING.

KINESIOLOGY - THE BODY KNOWS THINGS ABOUT WHICH THE MIND HAS NOT ONE PIECE OF INFORMATION.

RACING CAR DRIVERS - TRAVELING AT 200 mph, SEEING FRIENDS SITTING IN THE GRAND STANDS AND ABLE TO PIN POINT THEIR LOCATION THERE. THIS IS IMPOSSIBLE VIA THE EYE, OPTIC NERVE & BRAIN CONNECTION, WHICH TAKES JUST UNDER ONE TENTH OF A SECOND TO WORK.

THE BOTTOM LINE IS THIS: ALL INFORMATION AND THUS ALL THINGS ARE PRE-EXISTING IN THE AETHER AND AVAILABLE VIA THE GAPS IN THE AETHER. AND THE AETHER IS A UNIFORM FIELD.

THIS EXPERIMENT IN SOUND IS A PROOF OF THAT - AS ARE ALL THE OTHER PHENOMENA MENTIONED.

THESE SCIENTIFIC HOLY GRAILS: THE UNIFIED FIELD THEORY, THE COLLAPSE OF THE WAVE FUNCTION, RELATIVITY, THE LAWS OF PHYSICS. THEY ARE ALL WITHIN THE UNIFORM FIELD OF THE AETHER AND EASILY EXPLAINED AND UNDERSTOOD THEREBY.

THE ONLY ESCAPE FROM THIS MATRIX IS ENLIGHTENMENT.

BLESSINGS,

PS: REMEMBER THE OLD AXIOM THAT THERE IS NO PAST NOR FUTURE AND THAT ALL THINGS ARE HERE NOW. MIND BOGGLING ISN'T IT.

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"Ethics" is simply a last-gasp attempt by deist conservatives and orthodox dogmatics to keep humanity in ignorance and obscurantism, through the well tried fermentation of fear, the fear of science and

new technologies.

There is nothing glorious about what our ancestors call history, it is simply a succession of mistakes, intolerances and violations.

On the contrary, let us embrace Science and the new technologies unfettered, for it is these which will liberate mankind from the myth of god, and free us from our age old fears, from disease, death and the sweat of labour.

Rael

WHAT A HOOT - TOTALLY LAUGHABLE - OUR SCIENTISTS ARE DIRECTED AWAY FROM SPIRITUAL IDEAS. FUNDING IS NEVER PROVIDED FOR RESEARCH INTO THINGS THAT WILL LEAD TOWARD THE SPIRITUAL.

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Hi Mate: remember I told you about the German Research facility " Desy " in Hamburg? (Google Desy.de)

They managed to do the same about 2 years ago: using an about 9 km long " Ring - Particle-Accelerator " , they sped up one electron particle so fast that it past a Filter Membrane before it was even set off!

So, the only Big News is that the same phenomenon happens with sound: but the principle was proved way before and as usual by the Germans...