

FLORENTIN SMARANDACHE
There Is No Speed Barrier in The Universe

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THERE IS NO SPEED BARRIER IN THE UNIVERSE

In this short paper one promotes the hypothesis that: There is no speed barrier in the universe, and one asks if it's possible to have an infinite speed?

What's new in science (physics)? According to reseaschers from the University of Innsbruck in Austria (December 1997):

- photon is a bit of light, the quantum of electromagnetic radiation (quantum is the smallest amount of energy that a system can gain or lose);

- polarization refers to the direction and characteristics of the light wave vibration;

- if one uses the entanglement phenomenon, in order to transfer the polarization between two photons, then: whatever happens to one is the opposite of what happens to the other; hence, their polarizations are opposite of each other;

- in quantum mechanics, objects such as subatomic particles do not have specific, fixed characteristic at any given instant in time until they are measured - suppose a certain physical process produces a pair of entangled particles A and B (having opposite or complementary characteristics), which fly off into space in the opposite direction and, when they are billions of miles apart, one measures particle A; because B is the opposite, the act of measuring A instantaneously tells B what to be; therefore those instructions would somehow have to travel between A and B faster than the speed of light; hence, one can extend the Einstein-Podolsky-Rosen paradox and Bell's inequality and assert that the light speed is not a speed barrier in the universe. We even promote the scientific hypothesis that: **THERE IS NO SPEED BARRIER IN THE UNIVERSE**, which would theoretically be proved by increasing, in the previous example, the distance between particles A and B as much as the universe allows it, and then measuring particle A.

Now an Open Question: If the space is infinite, is the maximum speed infinite? We say yes.

FLORENTIN SMARANDACHE

[Early versions presented at the University of Blumenau, Brazil, in May 1993, and at the University of Kishinev, in a Scientific Conference chaired by Professors Gheorghe Ciocan, Ion Goian, and Vasile Marin, in December 1994.]

References:

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[2] Smarandache Florentin, "Eternal Life at Infinite Speed", Arizona State University Special Collection, Hayden Library, Tempe, 1993.

[3] Suplee, Curt, "'Beaming Up' No Longer Science Fiction", <Albuquerque Journal>, December 11, 1997.

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